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AN IN-DEPTH STUDY INTO BEHAVIOURAL AUDITING - ITS USE IN GIVING INDICATION OF POTENTIAL FRAUD.

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AN IN-DEPTH STUDY INTO BEHAVIOURAL AUDITING - ITS USE IN GIVING INDICATION OF POTENTIAL FRAUD.

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<u>Abstract</u>

Behavioural auditing has been a subject discussed by auditors for many years but little work appears to have been done to quantify fully what it actually is, what its precise definition is and where it fits with other aspects of auditing.

This work has, therefore, researched in detail the literature on behavioural auditing. This has encompassed literature written for the three different disciplines within audit - internal audit, external audit and audit consultancy - and has examined the differences between each discipline's perceptions of behavioural auditing.

The research then considered opinions of behavioural auditing by practioners within each of the disciplines and sought their views on the definition and use of behavioural auditing.

By combining the published and practioner views, a definition of behavioural auditing has been postulated.

It was then postulated that use of behavioural auditing may make audit work more efficient and effective. This led to a consideration of the interpretation of body language and its potential use by auditors. As with behavioural auditing in general, the use of body language is discussed in audit textbooks, but it appears that little work has been done to establish how it can be used by auditors. Therefore, one aspect of behavioural auditing - the observation of an auditee's body language - was tested by inviting students to review five videos which were made to show examples of an auditee's differing body language. Feedback about the potential value of behavioural auditing and specifically of the interpretation of body language was gathered and analysed.

The results of this feedback have clearly indicated the value of this practical application of behavioural auditing and its use in giving an indication of potential fraud. In addition, the need to provide training to auditors on behavioural auditing and the interpretation body language has been identified.

Chapter 1   <u>Introduction</u>

1.1   Audit skills

Although auditing is not the 'oldest profession' it is certainly one of the earliest. In Chambers; Selim; Vinten's (1987), the authors argued that audit was moving from being an occupation to a profession that was meeting the attributes of a profession – systematic body of theory, professional authority, sanction of the community, regulative code of ethics and a professional culture (See chapter 2 - an <u>emergent</u> profession, my underlining). This debate was re-visited by in de Korte; Paape; Verhoog (2003), chapter 3 of which plots the growth of (specifically Internal) Auditing to become a profession.   It demonstrates that internal auditing has moved to become far more professional.

In the Mesopotamian civilisation, there is evidence that their financial transactions were checked, see Echadler (2002), and that financial internal control systems existed.

The English word 'auditing' comes from the Latin 'audire', or 'auditus' meaning to hear or to listen. One of the skills that a 'good auditor' is meant to have is the competency or soft skill to listen clearly and effectively to what auditees tell him or her. This study concentrates on one of an auditor's skills, behavioural auditing and, within that, on auditors' interviewing and interpretation of body language skills.

Before starting to consider the different audit skills and techniques that an auditor may possess, it is useful to outline briefly a sample of the scope of modern audit.

It is valuable to note that auditing, like many other professions, is the application of knowledge, techniques and skills. In the body of this work I note that audit techniques can be taught; how well they are applied is a question of skill that comes with knowledge, experience and practice. It is also important to place this all in the arena of modern audit and I have therefore exampled below the scope of the work carried out by modern auditors in the early 21st century.

In the UK, internal auditing came to prevalence in the early 20th century as one of the duties of a municipal treasurer. The treasurer had to provide assurance to local authority

councillors that an independent review of the municipality's accounts had been carried out properly. External auditing emerged from the verification of accounts and was initially formed in English common law, but, progressively written into UK company law (eg: in 1900 (sec23), 1985 and 1988 - see Caparo Industries Plc - v - Dickman [1990] 2 AC 605). Since that time, and until relatively recently, auditing has been perceived as a sub-set of the accounting profession.

However, the scope of modern auditing practice is far more than just auditing the accounts. It encompasses a very wide range of subjects and techniques. This is illustrated by the width of the scope of modern audit techniques - see Institute of Internal Auditors UK and Ireland, (2004) study texts for PIIA, and Sawyer (1974) Modern Internal Auditing - as listed below:

- **Systems analysis.** Checking that systems that operate within a company, department, etc, are accurate, efficient, effective, ethical, and accord with company policy, etc.
- **Fraud analysis**. Checking that procedures and practices are in place to assist prevention and/or to minimise fraud.
- **Management analysis**. Auditing and/or reviewing the effectiveness and efficiency of a company and/or a department's management procedures and practices. It may encompass a review of the quality of a company's management.
- **Governance considerations**. Does a company meet best practice in its processes to provide assurance to management that the company operates effective corporate governance and controls?
- **Financial analysis**. The traditional role of checking that the accounts of a company, department, process, etc, are a true and fair view of what actually happened (the trading accounts), is happening (balance sheet), and, potentially what will happen (the cash flow and cash forecast statements).

Moreover, in this list, a 'company' can be a hospital, a financial services institution, a brothel, an airline, an aeroplane, a bank, a non-profit making organisation, a university. The wideness of range illustrates that "*audit is a fact of life. It covers the entire spectrum of public and private activities of individuals and organisations from cradle to grave. There is no escape*". Siegel/Ramanauskas-Marconi, (1989: 293).

The list above demonstrates that audit is no longer just a detailed analysis of figures that underpins a company's accounts; it is more than that as it covers all aspects of the way a company operates; the list indeed reflects the wide scope of audit today.

The role of an auditor has also changed. A typical auditor can no longer be "*a man past middle age, spare, wrinkled, intelligent, cold passive, non-committal; with eyes like a cod-fish, polite in contact, but at the same time unresponsive, cold; calm and damnably composed as a concrete post or a plaster-of-Paris cast; a human petrifaction with a heart of feldspar and without charm of the friendly germ, minus bowels, passion, or a sense of humour*" – Wilson, Wood (1985:6) attributed to Hubbard, E.

Instead, and noted by the Institute of Internal Auditors - Practice Advisory 1210-1, a skilled modern auditor needs to have:

- "*skills in dealing with people, understanding human relations, and maintaining satisfactory relationships with engagement clients*", and
- "*skills in oral ... communications*"

These are also addressed in the section relating to the Behavioural Aspects of Auditing, see Chambers (1981). I also argue that these words apply to any external auditor – they are indeed generic to anyone working in the audit profession, whether external auditors, or internal auditors, or audit consultants.

In this study I examine three of the skills that I will argue are required by a leading-edge auditor, namely:

- behavioural auditing;
- use of behavioural skill as part of carrying out audit interviews;
- use of observational skills during audit interviews, especially those skills of body language and kinesics, in order to improve the assessment of the information told to them by an interviewee. This could be argued to be an 'auditor's nose'.

From the research that I have carried out, I could find no evidence to show that the use of these different skills have been considered as a complementary whole for the benefit of the audit profession. This study suggests how they may be combined and tested to see

potential benefits.   However, before considering these in further detail, I note a further complication which is inherent in defining the scope of internal audit, compared to external audit or to audit consultancy, and whether 'behavioural audit' and a 'behavioural approach to auditing' sits more comfortably with a particular one of these three.

I cite two arguments which indicate the breath of internal audit work; firstly, how the work of internal auditors and audit consultants overlap - *"Internal auditing is an independent, objective assurance and* <u>*consulting*</u> <u>*activity*</u> *(*my underlining) *designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes"* - definition of Internal Auditing, Institute of Internal Auditors Inc. (July 1999).

Secondly, how the wide scope of internal audit may imply that external audit work is in some ways a sub-set of that of internal auditors, namely that it could be considered that internal auditors are different to external auditors because they do not focus only on financial statements or financial risks: much of their work is looking at reputational, operational or strategic risks. They also give an independent opinion on whether internal controls – such as policies and procedures – put in place to manage these risks are actually working as intended.

This latter argument is countered by the role of many external auditors, namely that external chartered accountants not only provide a 'legal sign-off' of a company's accounts, but they win contracts to provide internal audit services for companies. Several UK chartered accounting companies provide both an audit consultancy and an external audit service.

These issues blur the differences between what used to be the scope of an audit and the current roles provided by internal auditors and chartered accountancy companies. I have therefore adopted the premise that all 'modern auditors' – internal, external and audit-consultants - need to be equipped with the full range of audit and consultancy skills including those of a behavioural nature.

1.1.1 Skill: Behavioural auditing

There is a wide range of different types of audit work; 'computer audit', 'contract audit', 'fraud audit', 'financial audit', 'operational audit', etc. Similarly, different types of auditor are therefore entitled; 'computer auditor', 'contract auditor', 'fraud auditor', 'financial auditor', 'operational auditor', etc. The phrase 'behavioural aspects of audit' is also in use, but what is 'behavioural audit', what is its definition, and is there such an animal as a 'behavioural auditor'?

The Oxford English Dictionary's definition of behavioural is *"of or relating to behaviour"*, ie: the way one conducts oneself.

In the 1970s, the terms 'a behavioural approach to audit' and 'behavioural aspects of audit' were coined - see, for example, the behavioural aspects of auditing that are discussed by Chambers; Selim; Vinten (1987: Ch 5) Internal Auditing and by Chambers 1981. These came at the same time as the growth of modern internal auditing and can be considered to be one of its elements - see 'Behavioural patterns in Internal Audit Relationships' and the 'Role and Objectives of an Internal Audit, behavioural approach' (Institute of Internal Auditors (1972) and Morgan (1975).

However, whereas the definition of a behavioural <u>approach</u> to auditing is well defined in Chambers, Morgan, Institute of Internal Auditors Inc, et al, (my underlining), no really adequate definition of behavioural auditing could be found. This is potentially important, as, without being able to work to a precise definition of behavioural auditing, it becomes difficult to examine one of the skills that a competent behavioural auditor could usefully possess - the ability to identify misinformation provided by an auditee using behavioural skills and techniques.

I also note that in these and other publications that I have reviewed, there was no linkage between behavioural auditing or the behavioural aspects of auditing, and its potential application to help identify possible fraud. For example, the Institute of Internal Auditors, UK and Ireland's Education Courses Training Handbook (2005) lists nineteen courses which have behavioural issues and, of these, ten are specifically listed as including training of a personal, interpersonal and/or organisational nature. Although it is noted that

the interviewing skills course is considered to have many 'behavioural issues', it does not say that fraud does not include any 'behavioural issues'.

In trying to define clearly what behavioural auditing is, a starting point considered was to simply modify the existing definition and scope of behavioural <u>accounting</u> to make it into behavioural <u>auditing</u>, my underlining, thus "*it is that dimension of ~~accounting~~ auditing concerned with human behaviour and its relationship with design, construction and use of an efficient ~~accounting~~ auditing system*" - Siegel / Ramanauskas – Marconi (1989:   ). I consider whether this proposed definition is adequate.

1.1.2   Skill: The auditor's nose

One of the more traditional roles that auditors carry out is in the investigation of fraud. This may have evolved because auditors, who examined the financial books and accounts of companies and discovered fraud, were the obvious people to be asked to investigate the size and nature of that fraud. It is suggested that Hubbard's description above of the auditor stereotype fits precisely the public's image of a fraud-investigating auditor – a "*somewhat narrow, focussed, black-and-white individual*". Successful investigating auditors were said to have a 'policeman's nose' or an 'auditor's nose', implying that they knew instinctively when an auditee was not telling them the truth.

However, fraud investigation skills appear to be much removed from the skills displayed by a 'behaviourally aware auditor' as specified in the Institute of Internal Auditors' standards and given above. Auditing for fraud "*is a more intuitive process than it is formal, analytical methodology – it is more of an art form than a science*" - Bologna and Lindquist, (1987:   ) I suggest that this intuition is commonly expressed as the 'auditor's nose'.

1.1.3   Skill: Audit interviewing

There is a considerable body of information about audit interviewing. It seems that most audit reference books have a paragraph, section or chapter that considers this topic. Much is written about how an auditor should prepare for an auditee interview. However, little appears to have been written on the behavioural skills that an auditor can or perhaps

should employ during the interview. The Institute of Internal Auditors, UK and Ireland's PIIA Distance Learning Course covering interviewing gives eight section headings

When and why	Types of interview
The structure of interviews	Planning
Conducting the interview	Closing the interview
Fraud investigation interviews	Body language

For the fraud investigation and body language sections, the course suggests that you have to read the interviewee's body language and manage your own. It does not explain how.

Flesher, (1996:   ), specifies that the elements of basic interview skills and techniques cover planning, scheduling, opening, conducting, closing, documenting and evaluating. He does not mention behavioural skills, per se, but does say in the introduction to interviewing that the *"Human relations skills displayed during interviews with audit customers can often mean the difference between success and failure..."*.

1.1.4   Skill: Body language and kinesics

Like auditing, both the body of knowledge and the skill-set for the interpretation of body language have changed very considerably since 1900. Before then, for example, 19th century psychologists produced an illustration showing stereotypical facial images of twenty men each of which defined a type of individual; honest, courageous, fraudulent; sly, humorous, etc, (presented by Ingrid Schoen in her City University Social Methods Research course (2003/4)). This illustrated and emphasised the belief held at that time, that bearded men may not be honest. However, I would argue that, in the 21st century, it is accepted that bearded men can be open and honest in exactly the same way that non-bearded men may be. I do note, however, that until at least until 1978, IBM had a formal policy not to employ bearded men. I have been told that this also applied to EDS.

A considerable body of work was undertaken on body language in the 1960s / early 1970s by Professor Birdwhistell of the University of Louisville. He showed *"that more human communications took place by the use of gestures, postures, position and distances than by any other method [of communications]"* - Pease (1981:   ). Certainly, many books have

been written and much research undertaken on how to interpret an individual's body language. For example Ekman; Freisen, (1975):

- In an interview situation between an auditor and an auditee, "*People regard facial expressions as more trustworthy than words….. yet…. facial expressions of emotion are not easy to control…. but… people are more practised in lying with words than with faces (and more practised with faces than with body movement). …. so …. how can you detect the leakage of feelings the person is trying to conceal from you?*

- *with some people [e.g., the auditee] you [the auditor] probably will have little chance to spot when they are controlling their facial expressions. They are just too good for you to detect signs of facial management. A really good actor [or fraudster] is very convincing" .*

In researching for this thesis, no references could be found to the application of a knowledge of body language to assist an audit interview.

1.2   Nature of this research

1.2.1   Where this research fits into the wider scope of audit

All audit work has three main phases:

i   the input to the audit; fact finding about the potential area the audit work will consider

ii   carrying out the audit work; the body of the audit; the audit process

iii   quantifying the results of the audit, including oral and written reports, and information used to form the input for the next stage of the audit.

This research is centred on part of the second phase, the: carrying out the audit work; the body of the audit; the audit process.

In the middle of the 20th century, audit, both internal and external, concentrated on the accuracy of the financial accounts. One of the perceived roles of an auditor was to identify fraud and other financial irregularities. Auditors were frequently disliked as they were seen to be 'the financial policeman' of a company. This area of practice can be defined as using 'hard' audit skills.

Since then, an auditor's role has altered very significantly. An auditor's knowledge of the way companies should and do operate at a senior level, as well as an auditor's skill to examine a company, their staff and their management, has been used by the senior management and the external stakeholders of a company. To fulfil this role, auditors have to apply both hard and soft skills. An auditor can help to ensure that their company is as efficient and, especially, as effective as possible. To achieve this, auditors are now required to use far more 'soft skills' than fifty years ago.

However, the recent impact of Sarbanes-Oxley, has, arguably, reversed this trend – detailed financial accounting checking is required, as well as the need to check and sign off the effectiveness of financial and associated procedures. Future research may plot this reversal to ascertain whether it is a temporary or more permanent change. I also comment that conclusions about the application of Sarbanes-Oxley (SOX) and its lack of prevention of financial losses in the banking sector in 2008 may reduce future dependency on SOX.

Yet, probably, all auditors, whether operating anywhere within the sphere of hard or soft audit, find that their time is at a premium. Any techniques that will be able to indicate how to use their time better, and thus the assets of the company better, are arguably potentially advantageous.

There is a debate about the exact definition of different types of auditing; for example, in Brink's Modern Internal Auditing (1999:21.2), Internal auditing; appraisals operations and controls, operational auditing is defined as "*an independent review including all aspects of an organisation; its business functions, financial control and the supporting systems…….the auditor goes beyond a narrow range of activities and includes virtually all aspects of the organisation in the scope of internal audit reviews. A better name for the operational auditing might be 'managerial auditing'*".

This statement implies that there is little difference between operational and management auditing, and Brink goes on to say that the term operational auditing has been "*kept as that was how this type of audit was first defined*". In Chambers; Selim; Vinten, (1981), Internal Auditing, a sharper distinction is drawn – "*Management audit takes the highest possible across-the-board perspective ……Operational audit is confined to an individual*

operational audit area and will be less able to achieve a bird's eye view or group headquarters vision" (p78). This definition is illustrated by a hierarchy of audit terms:

Management audit

Operational audit

Financial audit
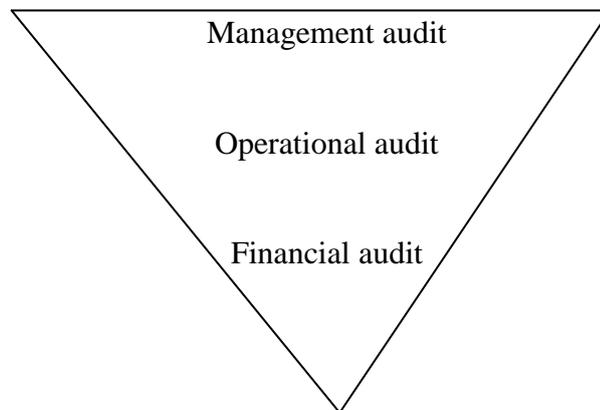
I note that Brink's publication is US based whereas the Chambers et al's definition is UK based. As a practising UK based auditor, the latter definition fits more closely with my UK experience. However, I would question whether, by including financial auditing in the diagram, this does not mix, albeit only to a small degree, apples and pears. (Perhaps oranges and satsumas would be more akin to the difference). I challenge the placement of financial auditing definitions in that whereas both operational and management auditing define a <u>type of approach</u> to an audit as well as the <u>scope</u> of that audit, financial auditing covers the <u>scope</u> of work only. So, instead of financial audit, I would prefer to replace this term with standard definitions of approaches to audit. Again, these are well defined in Chambers et al in which three approaches are outlined, namely:

- *The Verifications approach* - where auditors verify something they are reviewing;
- *The Vouching, or Tick and Check, approach* - which, by an intelligent scrutiny of records, auditors can confirm that laid down procedures are complied with, and
- *The Systems approach* - in which the auditor focuses upon the system itself. The auditor will use both verification and vouching to assist this approach.

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In both Chambers et al, and Brink, it is noted that there is no single type of auditing – verification, tick and check, systems, financial, operational or management – that can be applied in isolation. A complete management audit will need to use skills deployed as part of an operational audit, of a financial audit, and of an audit using techniques such as the verification, vouching and systems. However, in the same way that Maslow's hierarchy of

needs indicates a progressively increasing scale of needs/complexity, so these types of audit can be placed in a progressively more complex audit type: each requires a combination of the other. In addition, the degree of skill required for each of these approaches to work is different, with management audit requiring the most number of skills, and verification the least. When placed in Chambers et al's diagram I get:

Audit types

Management
Operational
Financial / Systems
Tick & Check
Verification

In the above, I noted that in the definitions by Brink and Chambers et al, both mix the <u>type of approach</u> to an audit as well as the <u>scope</u> of that audit; ie, a mix of skills and styles. As a practising auditor, this mix does not matter provided the auditor applies the correct skill and the correct style to the task to be completed. Indeed, for example, if an auditor suspects that there are irregularities in the work carried out by an organisation's top management, the auditor may well employ simultaneously detailed verifications skills with management style auditing. I therefore accept that it is valid to present the above information into a single axis which combines skills and styles:

Figure 1.1

<u>Axis of audit skills and styles – from the 'Hard' to the 'Soft' extremes (i)</u>

A	B	C	D	E	F	G
HARD	VERIFICATION	TICK & CHECK	SYSTEMS	OPERATIONAL	MANAGEMENT	**SOFT**

.

This axis, in which I have highlighted my key area of interest/research, does not include any mention of either fraud or behavioural auditing.

As the purpose of this research is to:

- explore behavioural auditing and if and how behavioural auditing can be used to assist in fraud auditing,

and as the purpose of this section of the research is to:

- explain where behavioural auditing and fraud auditing *'fit into the wider scope of audit; the bigger picture'*

and as the usual perception is that behavioural audit is all about the soft skills:

- working well with people, good communications, reviewing the ethos of a company, being a supportive part of the management team, not being an aggressive policeman,

and as the usual perception is that fraud audit is all about the hard skills:

- interrogating potential offenders to ascertain the truth about their activities, ascertaining information in a secretive covert way, detailed checking of financial information to find clues about potential fraud, acting like a nasty policeman,

all this implies that behavioural auditing and fraud auditing fit into this axis thus:

Figure 1.2

Axis of audit skills and styles – from the 'Hard' to the 'Soft' extremes (ii)

A	B	C	D	E	F	G

FRAUD   VERIFICATION   TICK & CHECK   SYSTEMS   OPERATIONAL   MANAGEMENT   BEHAVIOURAL

Yet in the same way that the styles and skills of management and verification audit can and are combined, it may be valid to consider the audit work which combines fraud and behavioural auditing. By bending the ends of the axis of audit skills and styles to form a circle, we get:

Figure 1.3

My sphere of research

A   B   C   D   E   F   G

FRAUD VERIFICATION TICK & CHECK SYSTEMS OPERATIONAL MANAGEMENT BEHAVIOURAL

Body language

Behavioural audit

Interviewing techniques

Interviewing skills

Forensic audit & psychology

Modern audit

This area – at the junction of the traditional boundary between hard and soft auditing - is my sphere of research.

1.2.2   My research questions

My area of research interest is therefore summarised by my two-fold research questions:

- What is behavioural auditing – its scope, content, usage - and, critically, what is its definition? Is it a major auditing technique in its own right, or just another tool in the auditor's armoury? Is it equally applicable and usable by all types of auditors?

- What practical uses can behavioural auditing deliver, and, specifically, by studying the behaviour of auditees via an auditee's body language, can fraud be detected?

1.3 Need for the Study

The purpose of this research is to focus on the 'soft' skills used in behavioural audit, to clearly identify what they are, and then to explore one potentially beneficial usage of them – in interviewing auditees, especially in a potential fraud situation.

1.3.1 Clarification

The behavioural aspects of auditing is a subject adequately documented in the more comprehensive textbooks on auditing, especially on internal auditing, but behavioural auditing is not well defined in those textbooks, or does it appear to have a common and/or agreed definition.

1.3.2 Practical benefits – sample sizes

Audit, like other professions, is continually asked to justify its benefits. What is its value to its employers and stakeholders? Like many professions, I argue that there is pressure to deliver the professional function at less cost, in less time and to higher quality. As a manager and then head of an internal audit function for some twenty-five years, I was asked to define and explain very accurately the financial cost-benefits of the audit service. The pressure to deliver the same service at a reduced cost progressively increased as time progressed. My colleagues in external audit were under the same pressure, and now, as a member of audit committees, I seek to minimise all audit fees whilst maintaining or improving the quantity and quality of work that the auditors provide.

There is quantifiable evidence that, in practice, sample sizes of material to be audited may be reduced and that that the sample is less scientifically selected – see 2.4.1 below. I argue that the use of behavioural audit may assist the auditor to select reduced sample sizes that statistically improve their chances of finding areas where more detailed audit work is beneficial.

1.3.3 Practical benefits – identification of fraud

In 1957 the IIA's Statement of Responsibilities did not specify that an auditor was responsible for detecting fraud, but, in 1963, Rezaee in his article in the National Industrial Conference Board report suggested five primary objectives of audit, one of which was … 'to prevent or discover fraud'. More recently, in 1987, the Treadway

Commission emphasised the important role that the internal auditor could play in the prevention of management fraud. Separately, stakeholders continue to believe that the role of an external auditor includes the prevention and/or identification of fraud. I therefore argue that whether or not an auditor is positively looking for fraud, he or she must always be alert to its possible existence.

Many practising auditors say that they have an 'auditor's nose' when it comes to identifying fraudsters. They can tell instinctively if an auditee is lying or not. This study seeks to try to identify if that 'auditor's nose' does exist and, if so, whether its existence, when exercised as a combination of the application of behavioural auditing and of body language in order to help identify fraud, is quantifiable.

1.3.4 Practical benefits – quantifiability and the bigger picture

Again, I argue that this work may assist the auditor to reduce sample sizes and improve the chances of finding areas where more detailed work is beneficial. As a result of the detailed work undertaken in this research, I seek to prove that behavioural auditing, and body language-assisted interviewing techniques, will improve the effectiveness of audit work. I also seek to prove that this improvement is quantifiable.

1.4 Limitations of the study

This study asks the auditor to combine three different skills; interviewing, application of the understanding of body language, and interpretation of human behaviour. Each of those three skills is a major study in its own right. There is a danger that selectively picking those elements from each skill only to the depth which needs to be used by the practising auditor will be perceived to result in a superficial understanding of each of the skills. However, I argue that one of the main skills of auditors is not their detailed knowledge of the audit function but the way they approach an audit. In the same way that a whodunit author does not have to be a murderer to write a good book, an auditor does not need to be a qualified lawyer to audit a company's legal function.

Nevertheless, this potential criticism might be valid. I counter this possible potential criticism by arguing that an auditor's professional approach is to analyse the problems

they find and, using their knowledge – either personal or researched – to suggest solutions to their client.   There are caveats, at a more detailed level:

- The understanding of body language becomes far more complex when studying people of different cultures or racial backgrounds. In this study I limit the theoretical section on body language to subjects who are British by birth and/or culture, and the practical section on observing an interviewee who is a British subject.

- The audit students and auditors who I propose to study and work with may have limited experience of fraud in their work-place and, also, because of company confidentiality, may not wish to share their experience of fraud(s) that have occurred in their company.

These are discussed in areas of future research in Chapter 7.

1.5   Structure of the study

In chapter 2, I examine the available literature on behavioural auditing, and also the application of the interpretation of body language as a tool of behavioural auditing. It leads to postulation of research questions about an accurate and potentially acceptable definition of behavioural auditing.

In chapter 3, I consider my research methodology to test my postulations.

Chapters 4 and 5 concentrate on the descriptive (Ch4) and qualitative (Ch5) analysis of the results that I obtained from questioning auditors. It leads to a recommended definition of behavioural auditing, and also to a suggested method of assessing the application of behavioural auditing using body language techniques.

Chapter 6 analyses the results of a practical application of behavioural auditing.

Chapter 7 then summarises the conclusions from chapters 4, 5 and 6 of this research.

The bibliography, data-captured appendices, and other appendices then follow.

Chapter 2 <u>Review of literature and development of research questions</u>

2.1 Introduction

In this chapter, and as an introduction to the whole body of this research, I discuss the elements of the techniques and skills that may be required to carry out different types of audit work. My aim is to put the area of work that I am researching within the context of different types of audit work. I also aim to prevent possible confusion and debate regarding 'hard auditing' compared to 'soft auditing', and audit skills as opposed to audit techniques.

Secondly, I go on to outline my original view of behavioural auditing and one of its elements - the application of the understanding of body language by auditors.

I then review the literature available to support, develop, or contradict these broad perceptions, and also identify where there appear to be gaps in the published corpus which this research can explore. In exploring this literature, my initial approach was to concentrate on the available text books – notably at Cass Library for the audit perspective and at the Cass and Bath University Libraries for the body language perspective - and then to bring this knowledge as up-to-date as possible through a detailed review of articles, journals and internet publications, especially those that are most recent.

This process led me to suggest 20 propositions about:

- behavioural auditing (9) and available training in behavioural auditing(2)
- the application of the understanding of body language(5) and fraud detections skills(4)

Finally, I again note that this is in the context of my research questions, which are:

- <u>What is behavioural auditing</u> – its scope, content, usage - and, critically, what is its definition? Is it a major auditing technique in its own right, or just another tool in the auditor's armoury? Is it equally applicable and usable by all types of auditors?

- <u>What practical uses can behavioural auditing deliver</u>, and, specifically, by studying the behaviour of auditees via an auditee's body language, can fraud be detected?

2.1.1 Behavioural auditing and its context within different types of audit work

All audit managers should consider the ability and experience of their auditors and allocate the audit work accordingly. Different types of audit require different types and degrees of ability, for example:

Audit technique

- I would suggest that carrying out a 'tick and check' on a sample of the auditable population is less technically complex than a full 'operational audit'. For example, on a 5 point scale where 1 is easiest and 5 is hardest, 'tick and check' may subjectively be assessed as say 1, whereas 'operational audit' is 5.

Hard/Soft

- I would suggest that an assessment of soft or hard audits is different from that of the technique and skills scales, since soft audits need the sensitive application of audit skills and techniques, for example, in dealing with people: their feelings, their ambitions, their careers, etc. On this basis, a management audit would be at the 'soft end' of the 'hard-soft' scale.   Conversely, if one is auditing the accounts and dealing purely with numbers or invoices, then ticking and checking invoices is at the 'hard end' of the 'hard-soft' scale.

Skill

- I would suggest that skill comes with experience coupled with training and practice. However skilful an auditor, however, different types of audit have a maximum skill rating. For example, computer audit may have a subjective technical rating of 3 or 4 but a maximum skill rating of 5, again measured on a 1 to 5 scale.

On a scale from -5 (hard) to $+5$ (soft), this would place 'invoice checking' as, say, -4, 'financial audit' as -3 and 'behavioural audit' as $+5$ (whatever behavioural audit is!). Historically, the more 'traditional' audit styles are on the 'hard side' of the centre (ie, left of centre on the x axis in figure 2.0.1 below), whereas more contemporary, or, 'modern' **a**udit styles are to the softer, right hand side.

Combining hard and soft audits, audit techniques and audit skills

- These factors can be combined graphically onto a 3D graph, thus:

Figure 2.1

Combining the hardness of the audit, audit skills and audit techniques
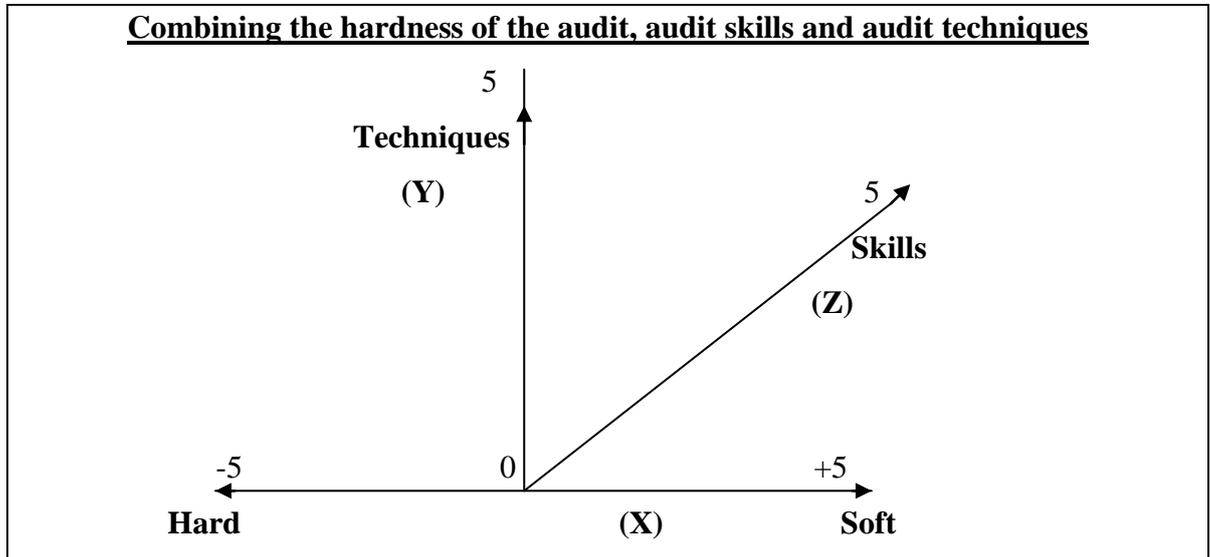
It is accepted that it is not possible to plot the hardness/softness, technical level and skill level required for any audit other than in a subjective way. The purpose of expressing these different types of audit in this way is to give a guide to explain the area of this research and to put it into context. Subjectively, therefore, I would assess different types of audit thus:

Table 2.1
Type of audits and their subjective rating

Type of Audits	Subjective assessment			RMS
	Type/axis of audit			
	X	Y	Z	
Behavioural Audit	**+5**	**4**	**4**	**7.5**
Fraud Audit + Body Language	**-4**	**4**	**5**	**7.5**
Management Audit	+5	4	4	7.5
Operational Audit	+4	5	4	7.5
HR Audit	+5	4	4	7.5
Computer/IT Audit	-2	4	5	6.7
Forensic Audit	**+2**	**4**	**5**	**6.7**
Fraud Audit	**-3**	**3**	**5**	**6.6**
Value for Money Audit	+1	5	3	5.9
Social Audit	+4	3	3	5.8
Management Information Audit	+3	2	4	5.3
Cash Audit	-5	1	1	5.2
Tick and Check	-5	1	1	5.2
Contract Audit	-1	3	4	5.1
Financial Audit	-2	3	3	4.7
Marketing Audit	+3	3	2	4.7
HR Audit	+3	3	2	4.6
Assets Audit	-4	2	1	4.4
Treasury Audit	-2	3	2	4.1
Payroll Audit	-2	1	1	2.4
Systems Audit	-1	2	1	2.4
Compliance Audit	0	1	2	2.2

The table has been sorted by root mean square, RMS - $\sqrt{(X^2 + Y^2 + Z^2)}$ - and sub-sorted alphabetically.

Accordingly, the types of audits that have a greater number of features at the extremes of the scale appear high in this list. Those areas of interest to this research are highlighted in grey.

The purpose of the above analysis is to show that the areas we are dealing with in this research tend to be at the extremes of the scales. These are highlighted within table 2.1 above. In practical terms, it is unusual to combine these extremes. It is this that gives both the challenge and the prospective rewards of this research in terms of the benefits to the auditor and the profession.

This research examines behavioural auditing, interviewing techniques and body language (and also, briefly forensic audit). It suggests that, by combining these different skills and applying them to an early part of the fact finding process in any audit, the auditor can reap real and measurable advantage. For me, the relative importance of these skills is:

Figure 2.2

Behavioural auditing, interviewing skills, body language: common arena
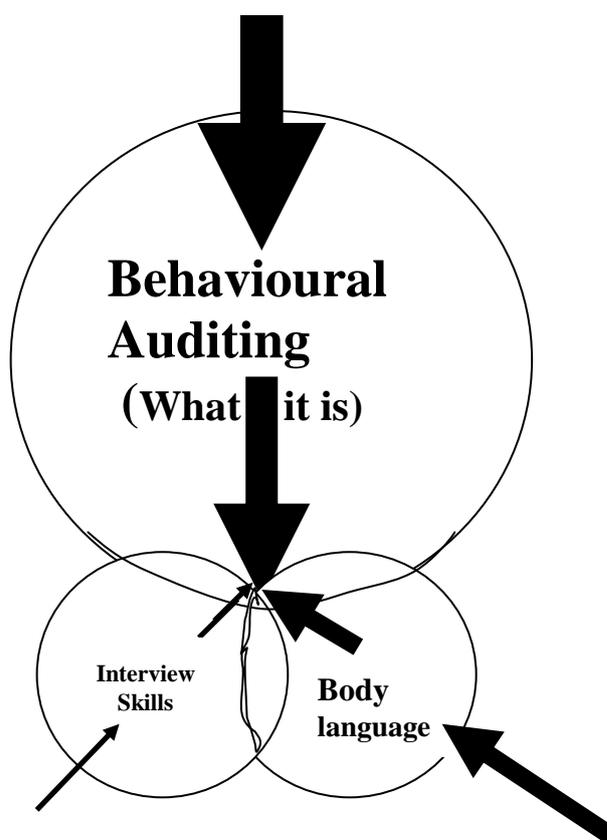
In this figure:

- the size of the arrows and words indicate their relative importance within this research,

- their direction reflects that they progressively drill into the central core of interest for this research.

A single research-structure diagram attempts to summarise the whole research, and this is given below in figure 2.3. This diagram is repeated throughout this research in more detail and is used to introduce each new section. Within this chapter, the parts covered by each section of research are highlighted in the diagram.

Figure 2.3

Summary schematic of this research ; introduction

BASIC AUDIT

SCOPING AUDIT then
FULL AUDIT

AUDIT WORK in
EACH DEPT.
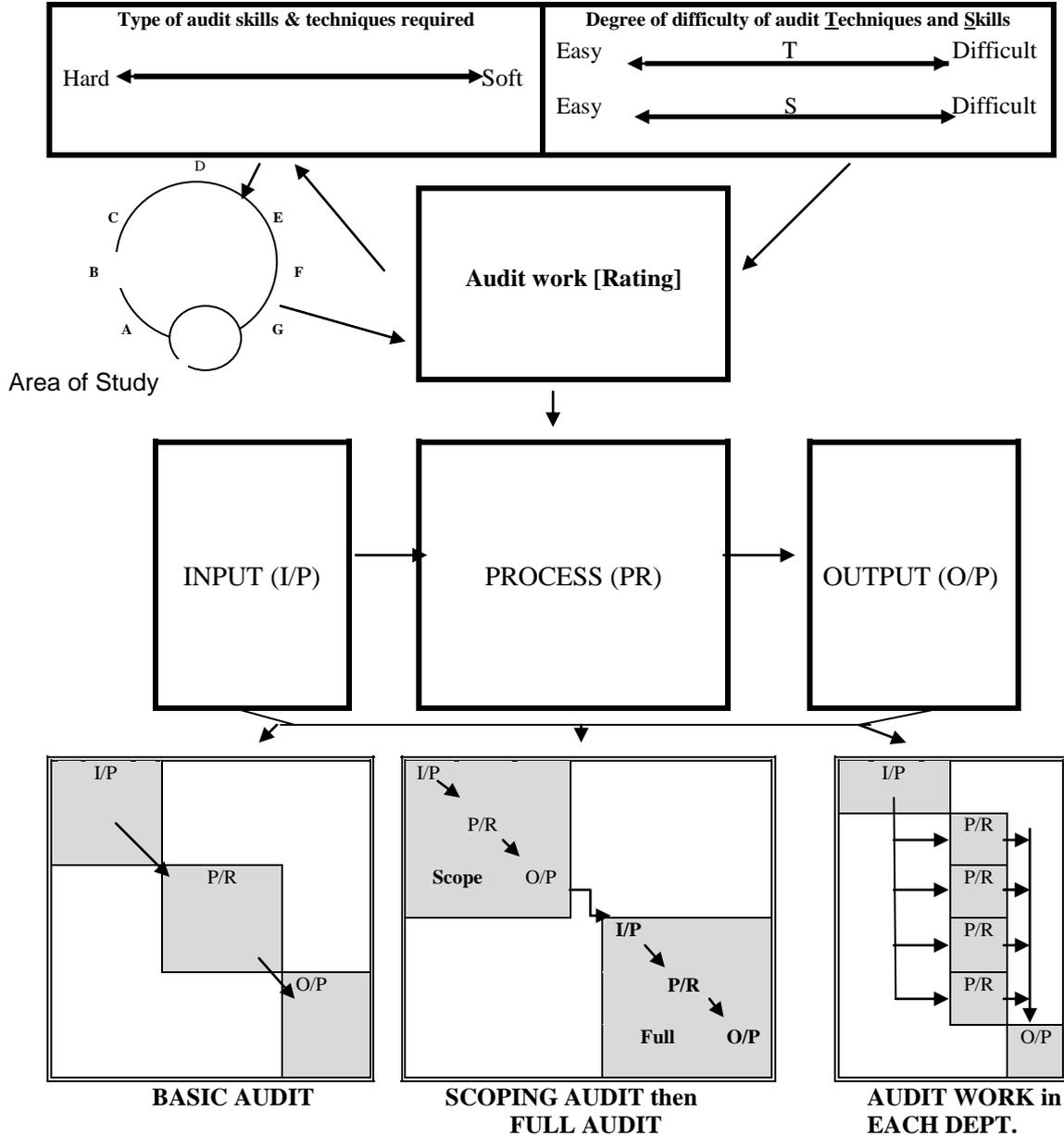
2.2 Behavioural auditing

In this section I discuss behavioural auditing, and. I seek to identify and clarify what behavioural auditing actually is. This work is within the context of the areas highlighted in figure 2.4 below.

Figure 2.4
Detailed schematic of this research; behavioural auditing

Scale illustrates ease of type of audit skills & techniques required, Hard to Soft	Scale illustrates ease degree of difficulty of audit Techniques and Skills
◄────────────────►	◄────────────────►
Hard	Easy T and S Difficult
Soft	

```
        C        E
                         Audit work [Rating]
   B   See fig 1.3   F
                         Tick and check [H/S, T, S]
      A            G     Computer [H/S, T, S]
                         Operational [H/S, T, S]
 Area of Study           Behavioural [H/S, T, S]
                         Interviewing [H/S, T, S]
                         etc
```

INPUT (I/P)	PROCESS (PR)	OUTPUT (O/P)
Fact finding, eg:	Applying appropriate type	Oral &/or written
dept. structure	of audit(s), eg:	assurance
power structure	Operational audit	For
people structure	Computer audit	Mgt &/or
	Behavioural audit	
minutes	Fraud audit	Next stage of
previous reports	Tick and check audit	audit work
etc	Systems audit	

| BASIC AUDIT | SCOPING AUDIT then FULL AUDIT | AUDIT WORK in EACH DEPT. |

'Hard'/'Soft' = (H/S)   Technical complexity = (T)   Skill required = (S)
Quantity and quality of work = (w). Work carried out in time = (t).
Assume the auditor is auditing a department of company in which fraud is likely to exist.

2.2.1   Review of definitions

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In examining the definitions of audit roles in general, and behavioural auditors in particular, it can be argued that one can define as many types of auditing and auditors as the type and role of auditees, for example:

Table 2.2

Different types of auditor

An auditor whose work focuses on	can be defined as an
Completeness and accuracy of goods/stock held	Assets auditor
Contracts: civil, mechanical	Contract auditor
Accounts, income, expenditure, finance, investment	Financial auditor
Following the source and destination of money	Forensic auditor
Investigation of irregularities within the accounts	Fraud auditor
HR, employment, terms and conditions. Personnel	HR auditor
Computers, systems, electronic processing	IT or computer auditor
Processes operated by doctors and nurses	Medical auditor
The whole work of a company, processor, department	Operational auditor
Payment of staff	Payroll auditor
How a school runs	Schools auditor
	etc, etc

In the 1960s and 1970s there was much emphasis on the way an auditor operated in order to be as effective as possible. This applied to all types of auditor. One of the problems that was identified which affected the auditor's would-be effectiveness was of potential conflict between the auditor and the auditee, especially when they work in close proximity; when the auditor knows/likes the auditee; when an auditor is both an 'independent auditor' and an 'advisor'; etc.

The roles of an auditor, which may cause these potential conflicts, were listed by the Institute of Internal Auditors Inc's standards (1978: paragraph 260) which specified that:

- *"Internal Auditors should be skilled in dealing with people and in communicating effectively";*
- *"Internal Auditors should understand human relations and maintain satisfactory relationships with auditees";*

- *"Internal Auditors should be skilled in oral and written communications so that they can clearly and effectively convey such matters as audit objectives, evaluations, conclusions and recommendations"*.

I believe and argue that all of these roles fall under the aegis of 'behavioural auditing'.

In Chambers (1981:114), the Behavioural Aspects of Internal Auditing are explored. Chambers does not offer a definition of what these aspects are, but does say that "*At the root of the behavioural aspects of internal auditing are <u>needs and relationships</u>*" (my underlining). The script then discusses needs, the hierarchy of needs, and the relationships an auditor has with his auditees and with his/her employer and communications in general.

In Chambers, it is noted on page 61 that "*It is commonplace for internal auditors to give at best only the most cursory attention to the nature and mechanics of individual and group needs and relationship"*. Again, no definition of the behavioural aspects of internal auditing is given but these words imply that one definition could be that: *Behavioural aspects of internal auditing is the process of giving attention to the nature and mechanics of individual and group needs and relationships.*

I note that, although these words are, potentially, a definition of the behavioural <u>aspects</u> of internal auditing, they are not a definition of what behavioural auditing actually <u>is</u>.

On the same page, the text also comments that internal auditing is all about people ….. "*Success/failure is all about how the auditor has handled the 'people dimension'"*.
Similarly, in Internal Audit by Venables and Impey (1991:70,71), no specific definition of the behavioural aspects of internal auditing is given, but the authors comment that "*The following impinge on the auditor's day-to-day work: Needs and relationships (inter-personal skills), Formal and informal relationships, Effective communications"*.

Internal Auditing, Sawyer, (2005), says that behaviour must be taken into account in designing and enforcing controls ….. a reasonable control system failed because behavioural aspects were not taken into account, and the "*behavioural approach takes the individual into account. It seeks to structure organisation so as to combine the needs of both people and the organisation"* (Page 1120). To me, this implies that one of the roles

of an auditor is to understand the behaviour of the people who will either have to operate, or are responsible for others operating, the recommendations that an internal auditor makes.

All the above are from standard well-respected internal audit textbooks. In the introduction to this work, I sought to exclude differences between internal and external auditors, and their role as advisors or consultants. However, in examining potential definitions in behavioural auditing for external auditors, the key sources of reference were within books about accountancy – arguably reflecting that external auditing is still considered as a sub-set of the accountancy profession.

Hopwood (1974: 1, 13) considered that "*accounting is all about people",* and that *"The behavioural perspective ... may well serve to make accounting systems more palatable".*

Siegel and Ramanauskas-Marconi (1989: 3 and 4) do indeed define behavioural accounting. They say that *"Behavioral accounting .... is that dimension of accounting concerned with human behavior and its relationship with the design, construction, and use of an efficient accounting information system".* It continues to say that "*Behavioral accounting, by considering the relationship between human behavior and the accounting system, reflects the social dimension of an organisation and becomes, thereby, a vital supplement to the financial information that accountants currently report. The scope of behavioral accounting is quite broad. It includes:*

- *the application of behavioral science concepts to the design and construction of accounting reports; the ways in which information is processed for decision making;*
- *the development of reporting techniques to communicate behavioral data to users; and*
- *the development of strategies to motivate and influence the behavior, aspirations, and goals of the people who run the organisation".*

It then goes on to divide the scope into:

- *"The effect of human behavior on design, construction, and use of the accounting system",*
- *"The effect of the accounting system on human behavior",* and
- *"Methods to predict and strategies to change human behavior".*

Sherer and Turley (1997:201) commented that "*Though risk-based auditing may have dominated auditors' approaches during the first half of the 1990s, Davis* considered that it was now time for the evolution of the fourth generation audit, namely, 'the investigatory audit'. He described it as follows*: It means audit people making judgements about auditing people. With integrated business and accounting systems, most system failures in larger companies are now detected long before the audit. Things go wrong from human abuse of the systems and of trust. The motives are usually personal protection in seeking to conceal poor profits, or personal gain through theft. The whites of the eyes test is worth hundreds of words in the audit programme. *The approach appears to be moving the auditor's focus further away from the details of the entries in the accounting system and on to the people who manage the business. This is almost recognition that external auditing could be regarded as the audit of motivations*".

*This refers to Davis, R (1996) Serving The Public Interest, "True & Fair", Dec. 1995/Jan 1996:6.

More recently, in Chapter 7 of the global summary of the Common Body of Knowledge (CBOK), which was produced by the Institute of Internal Auditors' Research Foundation in 2006, the authors examined behavioural skills, but concentrated on what were the inherent skills that an internal auditor must possess to do their job, not what behavioural auditing actually is. They did not define behavioural auditing. It is noted that the Foundation is currently (2009) undertaking a separate research project on behavioural auditing.

Similarly, a thorough review since 2000 of articles in key auditing journals including Internal Auditor, (both those published by the Institute of Internal Auditors, UK and the Institute of Internal Auditors. Inc.), International Journal of Auditing, Accounting and Business Research, Managerial Auditing Journal, and other publications such as the Internal Auditor (ed: Anderson) and Auditing Theory and Practice (ed: Mock), did not identify any further information about behavioural auditing, although information about body language, fraud risk identification was noted and is given as appropriate below.

I note that although there are useful references to the behavioural aspects of auditing and to the inherent behavioural skills required by auditors, there is and continues to be a dearth of information in text books, journal and articles, about behavioural auditing itself.

The results of the research noted above do, nevertheless, give an insight into what their authors consider to be the key elements of behavioural auditing. In summary:

Table 2.3

Elements in a potential definition of behavioural auditing.

	What behavioural auditing incorporates	**How behavioural auditing is carried out.**
1	The whites of the eyes test is worth hundreds of words in the audit programme. The <u>audit nose</u>	Closely observing auditees.
2	The application of behavioural science concepts to the design and construction of accounting reports; the ways in which <u>information</u> is processed for <u>decision</u> making.	Effective communications.
3	Development of .. 'the investigatory audit', … making <u>judgements about people</u> that are audited. (With integrated business and accounting systems, most system failures in larger companies are now detected long before the audit.)	To understand the behaviour of the people who will either have to operate or are responsible for operating the recommendations that an internal auditor makes.
4	Understanding the <u>management</u> and behaviour of the people who will either have to operate or are responsible for operating the recommendations that an internal auditor makes	Dealing with people Communicating effectively.
5	The development of strategies to <u>motivate</u> and influence the behavior, aspirations, and goals of the people who run the organisation.	The process of giving attention to the nature and mechanics of individual and group needs and relationships.
6	The <u>audit of motivations;</u> it is all about people.	Understanding people
7	Concerned with <u>relationship</u> between human behaviour and the <u>accounting</u> system	[Good] oral and written communications
8	Concerned with human behaviour and its <u>relationship</u> with the design, construction, and use of an efficient <u>information</u> system.	Understanding human relations Maintaining satisfactory relationships
9	The development of <u>reporting</u> techniques to communicate behavioural data to users.	Good reporting techniques
10	Reflecting an <u>organisation's social dimensions</u> and thus becoming a vital supplement to the financial information that accountants currently report.	Needs and relationships Creating good formal and informal relationships
11	Concerned less about the details of the entries in the accounting system and more about<u>understanding</u> the <u>people</u> who manage the business.	Accounting is all about people ... so …the behavioural perspective … may well serve to make accounting systems more palatable

The words/phrases underlined are also further explored in chapter 4, paragraph 4.4.

This analysis leads to three functional groupings:

- The work undertaken by the company,
- The culture of the company, and
- The individual in a company:

Figure 2.5

Grouping of what behavioural auditing encompasses and how it is carried out

AA **Work undertaken by the company**	BB **Culture of the company**
Operating audit recommendations (4)	Social dimension of organisation (10)
Design/construction/use/usability of	Strategies to motivate/influence staff (5)
effective (accounting) systems (2,7,8)	Motivations (6)
Management information required (7,9)	

Task   Ethos

Auditee

Individual

CC **Of individuals in the company**
Quality of auditees (3)
Honesty of auditees – the "whites of the eyes test" (1)
Quality of the people who manage (11)
Concern about personal motivations (6)

In this figure:

- I define a 'company' as an entity which can be a very wide range of organisations, groupings, businesses, etc, including: a hospital, a financial services institution, a brothel, an airline, an aeroplane, a bank, a non-profit making organisation, a university – see also paragraph 1.1, page 11 above.

- References 1 to 11 which are given in table 2.3, are those used in brackets in this figure.

Based on the above discussions, I suggest that behavioural auditing may include three elements:

- Within (**AA**) **-** the quality of the task undertaken by the auditee;
- Within (**BB**) **-** the quality of auditee's contribution to the ethos of their company**;**
- Within (**CC**) **-** the auditee's individual qualities including effectiveness and honesty.

In the introduction to this research, I postulated that a possible definition of behavioural auditing could be that: *It is that dimension of auditing concerned with human behaviour and its relationship with design, construction and use of an efficient auditing system*.

However, is such a definition adequate? I would argue that this possible definition is inadequate as it only concentrates on the 'work undertaken by the company' (section **AA** in figure 2.5).

2.2.2 Propositions resulting from the review: Definitions

I therefore suggest that a possible definition of behavioural auditing is:

That dimension of auditing concerned with the human behaviour of staff, the quality of the staff and their work.   Initial Proposition A

Though this possible definition encompasses all points previously discussed, a behavioural auditor may also be required to report on the quality of fellow employees. However, and to name only a few of the challenges, can an auditor:

- assess the effectiveness of staff?

- assess a member of staff's attitude to the ethos of the company?

- be appropriately independent when dealing with subjective an assessments which may be based on their likes or dislikes of individuals?

- justify the benefits of such an audit?

An auditee may question the benefits of being "personally appraised" by the auditor as part of an audit. For example:

- *'Surely such an appraisal would be done better by my line manager as part of either an on-going and/or an annual staff appraisal?'*

- *'What experience/knowledge can an auditor bring that a line manager can't?'*

- *'How can an auditor's snap-shot opinion be valid?'*

- *'What right has a person to question how efficient &/or honest I am? Surely the auditor's job is to check documented output, not make decisions on gut feelings?'*

- *'What are the benefits to the company of a 'Behavioural Audit' of me / my work / my department, etc?'*

again, to name just a few of the challenges.

These challenges are not, in fact, met by the definition given in the Initial Proposition A. To meet these, the suggested definition of behavioural auditing has been expanded to:

Behavioural auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and the work they undertake in order to meet the demands of the employer. Appropriately trained staff only carry it out. It seeks to provide assurance to an employer that it is making the most effective use of its staff. **Initial Proposition B**

This definition encompasses the points previously discussed, but it can still be challenged as a behavioural auditor could be inferred to be:
- An old-fashioned clipboard organisation and methods checker;
- Not necessarily considering or concerned with human behaviour and its relationship with the design, construction and use of an efficient information system.

To meet these further challenges, the suggested definition of behavioural auditing has been further altered to:

Behavioural auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and the work they undertake in order to

meet the demands of the employer. It also examines whether it is possible to provide assurance that the employer provides the right processes to enable its staff to be as effective as possible. Experienced auditors who have had appropriate training in assessing and dealing with human issues undertake it. | Initial Proposition C |

I argue that any one of these three propositions should be considered to be a viable and working definition of behavioural auditing. I propose to test the value of each of these propositions by obtaining feedback from a wide selection of auditors and other stakeholders, and will then evaluate that feedback in detail. I will also seek suggested definitions from the respondents. In suggesting these three propositions, I am conscious that they are progressively more wordy, so, though I will seek feedback on all of them with considerable interest, my initial preference is the most succinct of the three, ie:

> *'Behavioural auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and their work'.*

2.2.3 Propositions resulting from the review: Perceptions by auditors

I have found that the majority of publications that deal with auditing have a section and/or chapter that covers the behavioural aspects of auditing. Despite this, I could find little evidence of what practising auditors actually think about either behavioural auditing or the behavioural aspects of auditing, for example:

- What is 'behavioural auditing?
- As a type of audit work, what use is behavioural auditing to me or to my employer?
- Is behavioural auditing not something I do already anyway – might it not just be labelling a fundamental skill?
- For my employer, what are its benefits and its drawbacks?
- Is it a cost-effective technique?
- Do I consider that the ability to carry out behavioural auditing to be a career-enhancing skill?

In the introduction, I argued the premise that all 'modern' auditors - whether internal, external or those who work as audit consultants - need to be equipped with the full range of audit and consultancy skills, including those of a behavioural nature. This argument

does not negate the fact that behavioural auditing might be perceived differently by internal auditors compared to external auditors and compared to audit consultants. In addition, the auditor's perception of behavioural auditing will, most probably, vary by employment sector, as well as by the seniority, background and also experience of the auditor. This will be tested as part of this thesis.

Whilst it is potentially unwise to pre-suppose the results of this testing, nevertheless:

I postulate that the answers to test questions will illustrate that <u>auditors</u> do not have a clear understanding of the advantages and disadvantages of behavioural auditing.

<div align="right">Initial Proposition D</div>

.

2.2.4   Propositions resulting from the review: Perceptions by auditees

In the same way that it is difficult to quantify the benefits to auditors of behavioural auditing, it was not possible to find literature that provided a perception of what auditees understand behavioural auditing to be – individually or at the employer level. It is also recognised that, with the current emphasis on Sarbane-Oxley, there may be a trend to move back from the wider scope of auditing to the more traditional financial auditing. See also Internal Auditing and Business Risk, December 2004.

The swing back to financial auditing may affect different sectors in different degrees. This is not the subject of this research, other than to note the possibility and therefore to select a wide range of potential auditees by both type and sector, in order to provide an adequate range of feedback to assess.

I therefore suggest that, in order to understand how those who actually are the subject of behavioural auditing, or whose staff are the subject of behavioural auditing feel, it is necessary to ask a variety of questions. Again, whilst it is potentially unwise to pre-suppose the results of this testing, nevertheless:

I postulate that the answers to test questions will illustrate that <u>auditees</u> do not have a clear understanding of the advantages and disadvantages of behavioural auditing.

<div align="right">Initial Proposition E</div>

An overall conclusion is that the available literature about behavioural auditing is poor. which automatically suggests the following:

In general, behavioural auditing is poorly understood. I suggest that better understanding and increased usage will lead to quantifiably more effective audit work. **Initial Proposition F**

2.2.5   Propositions resulting from the review: Benefits

In the introduction to this study, I indicated that one possible benefit of this work was the practical benefits of reduced sample sizes; specifically that audit, like other professions, is under pressure to deliver the professional function at less cost, in less time and to higher quality. There is quantifiable evidence that, in practice, sample sizes of material to be audited may be reduced and that that the sample is less scientifically selected – see 2.3.3 below. Based on my practical audit experience, I argue that the use of behavioural audit may assist the auditor to select reduced sample sizes that statistically improve their chances of finding areas where more detailed audit work is beneficial – this study seeks to ascertain whether that argument is correct or false.

A better understanding of behavioural auditing could be helpful to the auditing profession. **Initial Proposition G**

In order to quantify the degree of benefit that use of behavioural audit may provide, I propose that:

- If the quality and quantity of audit <u>work</u> required to audit a process/department/ company is defined as <u>(w)</u>, and

- the <u>time</u> it takes to complete fully all aspects of the audit of that process/department/ company is defined as <u>(t)</u>,

- then the <u>effectiveness </u>of the Audit ($\in$) is defined as $\frac{w}{t}$.

thus the higher $\in$ is, the more effective the audit.

I postulate that use of behavioural auditing will improve the effectiveness of the audit, $\in$. | **Initial Proposition H**

In addition, and from considerable practical experience:

I postulate that use of behavioural auditing especially if used in quantifying the potential work required for a future audit, and prior to the full audit being carried out, will improve its effectiveness $\in$. | **Initial Proposition I**

2.2.6 Propositions resulting from the review: Training available

This section surveys the training available for auditors and others who are interested in finding out more about behavioural auditing. It only considers training provided in the UK. I focus on offerings from CCAB members and from the Institute of Internal Auditors, UK and Ireland, specifically:

- Institute of Chartered Accountants in England and Wales (ICAEW)
- Chartered Institute of Management Accountants (CIMA)
- Association of Chartered Certified Accountants (ACCA)
- Chartered Institute of Public Finance Accountants (CIPFA)
- Institute of Internal Auditors, UK and Ireland (IIA)

In addition, the study considers training courses provided by the UK 'big four' Chartered Accountancy companies. However, outside the UK, it is noted that a one-hour extension to PriceWaterhouseCooper's US-based 'Fraud 101' course contains elements of the interpretation of body language, in the fraud interview.

In addition, in an article by Carnes in the Managerial Auditing Journal (2001:378-382) the author notes that "Universities have been slow to respond with courses designed to improve students' understanding of fraud or their abilities to detect it".

A review of key journals since then until 2009 did not provide any further relevant article. Similarly, an initial review of courses provided by the CCAB bodies and the IIA was carried out in 2004. It concluded that no behavioural auditing courses existed. It did note that behavioural auditing may be mentioned in courses provided by the IIA. However, it is proposed to repeat and extend this review contemporaneously with the testing phase of this research. Without pre-judgement, it is expected that this may lead to an observation that:

There is little appropriate training in behavioural auditing and that such training would be advantageous to auditors.   Initial Proposition J

2.3   Interviewing: Interpretation of body language for auditors

In 2.2 I have considered what behavioural auditing is, and what training is provided. Though I argue that it is most important to understand this better from a theoretical standpoint, auditing is, essentially, a practical subject. I suggest that the day-to-day application by the auditor of behavioural auditing will further justify research into behavioural auditing as a subject in its own right, as well as providing real benefits to the auditor and the auditee.

As exampled in tables 2.1 and 2.2 above, there are many different types of auditing and different skills and techniques employed by auditors. However, all audits employ a combination of these types of audit, skills and techniques. For instance, a fraud auditor requires interviewing skills, whereas an operational audit requires a combination of virtually all other types of audit and skills. I have argued that behavioural audit is '*That dimension of auditing concerned with the human behaviour of staff, the quality of the staff and their work*'. Although this approach can be applied to numerous different types of audit, when I was a practising auditor I most effectively applied behavioural auditing, as I then understood it, to the start of the "doing the audit work / the body of the audit / the audit process" cycle.

This leads us to the audit interview. One of the earlier stages of any audit is the interview with the potential auditee or the line manager of the area to be audited. Such interviews

help to identify and/or clarify the scope of the potential audit. During an interview, application of an auditor's knowledge about, for example, the human behaviour of staff, the quality of the staff and their work may also cause the auditor to believe that more work than that initially planned may be required. This may be considered to be no more than 'the auditor's nose'.

I have put this area of research into context by highlighting the appropriate sections of the overall schematic given in figure 2.6 below.

Figure 2.6

Detailed schematic; interviewing and fraud detection skills

Scale illustrates ease of type of audit skills & techniques required, Hard to Soft	Scale illustrates ease degree of difficulty of audit Techniques and Skills
Hard (See pages 10 and 11 above) Soft	Easy ← → Difficult / Easy Difficult

C   E
B   See fig 1.3   F
A   G

Area of Study

Audit work [Rating]
Tick and check [H/S, T, S]
Computer [H/S, T, S]
Operational [H/S, T, S]
Behavioural [H/S, T, S]
Interviewing [H/S, T, S]
etc

INPUT (I/P)	PROCESS (PR)	OUTPUT (O/P)
Fact finding, eg:	**Applying appropriate type**	**Oral &/or written**
dept. structure	**of audit(s), eg:**	**assurance**
power structure	**Operational audit**	**For**
people structure	**Computer audit**	**Mgt &/or**
	Behavioural audit	
minutes	**Fraud audit**	**Next stage of**
previous reports	**Tick and check audit**	**audit work**
	Interviewing auditees	
etc	**Systems audit**	
	etc	

I/P
P/R
O/P

BASIC AUDIT

I/P
P/R
Scope   O/P
I/P
P/R
Full   O/P

SCOPING AUDIT then FULL AUDIT

I/P
P/R
P/R
P/R
P/R
O/P

AUDIT WORK in EACH DEPT.

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'Hard'/'Soft' = (H/S)   Technical complexity = (T)   Skill required = (S)
Quantity and quality of work = (w). Work carried out in time = (t).
Assume auditing department of company in which likely fraud exists.
Objectives are to maximise effectiveness of audit and likelihood of finding fraud
The graph show examples of different patterns of audit work

2.3.1   Review: Basic interview skills, style of interview questions, the fraud interview

Basic interview skills

A basic skill of all auditors is the ability to ascertain information in order to determine whether the process they are auditing achieves required objectives. Information may be sought in numerous ways, including examination of accounts, analysis of written information, and, of course, discussions with appropriate people. The latter - the interview process - is to obtain further information and provide supporting and illuminating detail about that which is being examined.   Unlike behavioural auditing, to which references appears in a negligible number of publications, the interview process carried out by auditors probably appears in more than 90% of text-books on both external and internal audit.

'Interviewing' is always described/defined as a process in its own right; ie: all audits require fact-finding and one way to obtain facts is from auditees using interviewers. Indeed, CBOK (IIA Research Foundation, 2006:282) identifies that, for audit staff, interviewing skills are the second highest most important skill they need; data collection and analysis is the highest. However, the way audits are conducted can vary considerably.

At one end of the spectrum, an auditor may well use closed questions taken from an internal control questionnaire script, prepared by his or her manager or borrowed directly from a text book, eg: *'Did you check the date on the invoice before paying it?'* - the hard/closed question. At the other end of the spectrum, a question may be very open-ended, eg: *'How do you feel about the way management operate in this company?'* - the soft/open-ended question.

As previously discussed, behavioural auditing is about the use of soft skills. Although behavioural auditing and interviewing are different topics, they do have a shared arena in the use of soft, open-ended questions. Similarly, I argue that the interpretation of body

language, though a separate function/process in its own right, does share a common arena with both interviewing skills and behavioural auditing.

This research starts with behavioural auditing and seeks to clarify what it is. One area of behavioural auditing is its application during interviews with auditees, and it is this application of behavioural auditing, combined with knowledge of interviewing techniques and body language, that this research postulates will provide measurable benefits to auditors.

Examples of the importance of the interview process to auditors are noted in Flesher, (1996:289) in which the author identifies that *"The human relations skills displayed during interviews with audit customers can often mean the difference between success and failure as an internal auditor"*.

Similarly, the Institute of Internal Auditors UK and Ireland, (2004: 287) say that *"it is important for you to study* [interviewing and negotiating] *because they are key to effective internal auditing"*.

Both of these texts identify the importance of thorough preparation for the interview, and the skills that an auditor should command and display when interviewing.

In my research, I am taking as a given that the auditor has properly prepared for the interview and that the auditor is a reasonably seasoned and competent interviewer. However, I argue that auditors may be able to employ or acquire further interviewing expertise to enable them to identify potential information known by, but not orally communicated by, the auditee that may assist the auditor in the audit/investigation.

Style of interview questions

I note that, by the very style of interviewing, the interviewee should be 'encouraged' to respond in such a way as to maximise the information provided to the interviewer:

- Use of the *"journalists' six 'open' questions – who, what, when, where, why and how",* see articles by Bednar (1999) and Craig, (1991).

- The interviewer's use of positive body language signals, e.g., showing interest and not boredom, good eye contact, nodding, etc.
- Maximisation of the use of unbiased open, as opposed to biased open, questions, e.g.: *"How was the use of allowance for uncollectibles estimated?", and not "Why do you believe the allowance for uncollectibles is adequate?"* Craig (1991).

Further examples are given in Koller's article in Internal Auditor (2002:42). In this article, the author notes the difference between "<u>*interviewing*</u> *an employee while investigating a fraud and* <u>*interrogating*</u> *an employee suspected of wrong-doing" (my underlining).* The author instanced a case where an interview turned into a fraud interrogation; one of the clues that a potential fraud had taken place was that the interviewee "*spoke quietly, remained unusually still and failed to make good eye contact".* The author reminds us of the need to be prepared to 'convert' the interview into an interrogation, and of the Police and Criminal Evidence (PACE) rules for any interrogation that may be required.

The author also then refers to Ekman's works which explain how to identify liars by identifying involuntary non-verbal clues. (See Ekman, (1982), Handbook of Methods in Nonverbal Behavioral Research, Telling Lies (1985), et al). This and other similar work is considered in table 2.4 on body language, below. This article did note that Ekman concluded that when both vocal and facial measurements were combined, it was possible to classify correctly 86% of interviewees as either lying or honest.

However, the sources of information about body language – textbooks, articles, journals, internet – concentrate purely on body language per se and do not comment on its use by auditors. Conversely, few audit publication comment on the use of body language.

Between 2000 and 2009, a full review of five major journals:
- International Journal of Auditing International Journal of Auditing
- Internal Auditor / Internal Auditing & Business Risk, UK
- Internal Auditor Inc, and
- Accounting and Business Research
- Managerial Auditing Journal

identified only one reference to the use of behavioural auditing by auditors; Internal Auditing & Business Risk [March 2006: 23] comments on a presentation to the Heads of Internal Audit Forum in which the presenter, Ulla Hoffman, said that "Neuro Linguistic Programming, NLP, can fundamentally alter the way internal auditors approach and resolve problems". However, this article concentrated on what are, or could be, the inherent skills that an internal auditor must possess to do the job, and not the body language technique of observing NLP clues given by auditees as a tool to interpret an auditee's body language.

Finally, and as a result of an internet search, I noted that a description of a "Toolkit of Audit Techniques" was produced by the London Local Service Partnership. This partnership, which was set up to support homeless people in London, was closed in 2005. In 2003 it produced a 3-page Quick Guide, ref H13, for auditors of an auditee's behaviour indicated by their body language. However, these pages did not specify what body language of the auditee may indicate that that auditee might not be telling the truth.

The fraud interview

In considering fraud, I highlight two types of audit:

The '*normal interview'* in which fraud is neither expected nor considered. This is the type of 'non-surprise interview', see Flesher, (1996: 145, 152, 157), in which the auditor is trying to sell himself as a helpful person who 'tries to put audit customers at ease during the audit' … and tries to allay 'the history of internal auditing…. when internal auditors were primarily concerned with fraud and embezzlement'

The '*fraud interview'*, conducted, in the UK, under the PACE rules (or their equivalent outside the UK), in which:

- Two people should be present so that one can record answers.

- The process of the interview is structured and clear for the witness being interviewed and for the auditors who are interviewing, and evidence collected should be handled with care and in accordance with PACE rules.

See the Institute of Internal Auditors, UK and Ireland, (2002:293), Study Text, Internal Auditing, which summarises the PACE rules for auditors.

Because of this separation into two types of audit, I argue that the auditor might, possibly, not be as aware as they should be that they can potentially identify the existence of fraud during a 'normal interview'.

I am not suggesting that a 'normal interview' should be converted to a 'fraud interview' in mid-interview, merely that the auditor must be aware of indications given by the auditee of the possible existence/knowledge of fraud. I note that in IIA Standard 280.02.1, that "*Detection of fraud consists of identifying indicators of fraud sufficient to warrant recommending an investigation.*" Indicators can and do occur during 'normal interviews'. However*, "the auditor cannot use an auditee's body language to accuse someone of fraud, but such indicators can signify the need for more extensive audit procedures*"- see Flesher (1996; p157).

I also note that the Institute of Internal Auditors, UK and Ireland (2002:189), Study Text - Internal Auditing, which is at post-graduate level, comments "*that formal fraud interviews are outside the scope of this text*". Their draft post-graduate-level syllabus on Risk Assurance and Audit Management requires the student to explain "*the internal auditor's role in fraud by reference to practical guidance and lessons learnt from major frauds*".

Again, this section indicates the dangers of 'a little learning'. Auditors may receive soft clues during an interview situation. Their 'auditor's nose' may sense that they are on the trail of a potential fraud. Correct interpretation of such clues requires an advanced level of study, and must only be applied with sound background knowledge of PACE procedures.

Finally, and perhaps reflecting an auditor's nose, it was noted in the International Journal of Auditing [March 2003, p59] that "in the context of fraud identification .... with experience, auditors develop more elaborate mental representation of relationships ..... including client characteristics, and errors that may be associated with them".

2.3.2   Behavioural clues in interviews

As previously noted, there are very many texts about interviewing and about interviewing skills for auditors. For example, in Gorden, R.L, (1975), Interviewing: Strategy, Techniques and Tactics, which summarises a considerable volume of knowledge about interviewing, chapter fifteen discusses four separate aspects of non-verbal interviewing techniques; Proxemics, Chronemics, Kinesics and Paralinguistics. I argue that each of these is relevant for application by the behavioural auditor, but further study of each is important so that the auditor knows their uses and limitations. They are expanded below.

Proxemics considers the physical distance between the interviewer and interviewee. It comments that a normal distance varies considerably between different cultures, and thus the impact and meaning of communications varies considerably between different cultures. For example, a normal conversation/interview is physically closer between two Middle-Eastern citizens than between two American citizens. This point is noted for awareness - if the interviewer puts unpalatable questions, then the interviewee may physically back away. Without knowing the cultural base of the interviewee, the significance of backing away cannot be properly assessed.

Chronemics has two aspects;
- the meaning of non-punctuality by either the interviewer or interviewee for a scheduled appointment. Cultural backgrounds and the ages of the interviewer and the interviewee, and also the attitudes to punctuality within the organisation, will all impact on the significance of lateness to the interview. It is not enough to imply that a late arrival by an interviewee may imply that they are nervous about the pending interview.
- as part of the interview, the experienced interviewer may leave a long pause after receiving an answer and posing their next question, and/or may wait without prompting an interviewee for an answer to a question. This is an issue of interview technique, interview style and cultural background. However, if an interviewee becomes clearly nervous, it may nevertheless imply that the interviewee may 'be guilty' or hold 'information that they are unwilling to impart'.

Kinesics is the name now given to the science of interpreting body language. This text quotes examples to show how early consideration of the interpretation of the placement of

feet, hands, posture, eyes, face, etc, could be used to support information acquired at interview:

- A study of the Judgement of Manual Expression as Presented in Still and Motion Pictures. Carmichael et al (1937).

- Body Position, Facial Expression and Verbal Behaviour during Interviews. Exline (1964).

- Sociology of the Senses: Visual Interaction. Simmel (1924).

- Visual Behavior in a Dyad as Affected by Interview Content and Sex of Respondent. Exline (1965).

- Interviewer Influence on Duration of Interviewee Silence. Matarazzo and Wiens (1967).

Paralinguistics

This is not the content of speech but the volume, quality, accent and inflection of the voice. This is exampled by the word "Yes", eg:

Q. *"Can you confirm that you had no knowledge of these thefts?"*

A *"Yes".*

Depending on the tone, and/or volume, and/or inflection of this particular one-word answer, the interviewer may interpret that answer as "Absolutely", or "Possibly" or "No", etc. This factor is noted but is not examined in any detail in this research.

These four aspects of non-verbal interviewing techniques, and especially that on paralinguistics, must be taken in a multi-cultural context. Throughout this research, I have obtained material from, predominantly, UK and USA–based sources, but these sources do not consider how communications work in different cultures. In modern companies and in modern business, many interviews and meetings are not between two people who are both of Anglo Saxon ethnic origin.

In Riding the Waves of Culture - see Trompenaars; Hampden-Turner, (2002:75) - the authors comment on inter-cultural communications, and the problems of communication across cultural boundaries which arise. This is illustrated below.

Figure 2.7

Different cultural talking patterns between two people of the same culture

Anglo Saxon	**A**	_____	_____	_____
	B	_____	_____	_____
Latin	**A**	_____	_____	_____
	B	_____	_____	_____
Oriental	**A**	_____	_____	_____
	B	_____	_____	_____
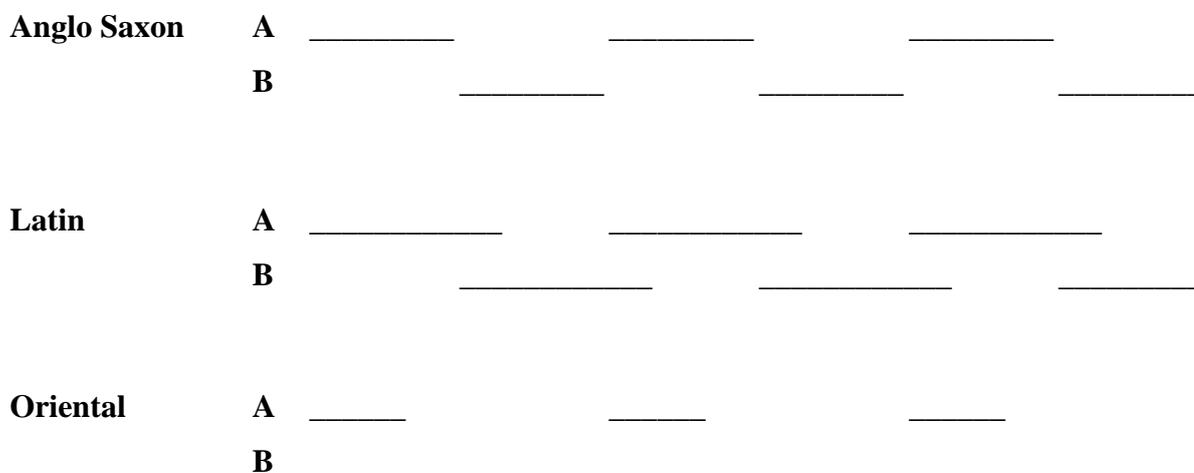
This figure illustrates the way two people of like culture, A and B, who are in conversation with each other, actually talk. Those from a Latin culture often talk over each other; those from an Oriental one often leave gaps before the next person speaks.

Similarly Trompenaars and Hampden-Turner (2002:76) instance an Italian professor who visited a US university and, naturally, made eye contact with his students. Later, the professor was surprised that the students greeted him as if they knew him, which they did not. It transpired that they incorrectly assumed that the professor knew them because of his initial eye contact. In the US, unlike Italy, initial eye contact is only fleeting.

Such inter-cultural considerations add considerable degrees of difficulty of interpretation. For this reason, as in other parts of this research, I try to concentrate on UK mannerisms only – for example, the scenarios considered in chapter 6 are between an auditor and auditee who were both born and bred in the England. However, it is noted that in the UK, with its multi-cultural diversity, such a clear-cut differentiation is, in practice, both difficult and impractical. Knowledge of communications between different cultural groups is, therefore, helpful.

I have included this section on behavioural clues in interviews to indicate the dangers of 'a little learning' by auditors. This section leads us onto 2.3.3 below, which examines in detail the potential use of body language by behavioural auditors in audit interviews.

2.3.3   What is body language and why is it relevant to an audit interview?

Body language, as its name implies, is the study of communication provided by the body, as opposed to other forms of communication such as written and verbal.   In Pease, (1981:9), the author comments that "*perhaps the most influential pre-20th century work was by Charles Darwin – The Expression of the Emotions of Man and Animals - published in 1872, which spawned the modern studies of facial expressions and body language*". Pease also adds "*that it seems incredible that,…. the non-verbal aspects of communication have been actively studied on any scale only since the 1960's.   ….. Since then Mehrabian ….. found that the total impact of a message is about 7% verbal (words only), 38% vocal including tone of voice, inflection and other sounds, and 55% non-verbal*".   Other researchers identify that over 65% of communication is non-verbal.

I argue that an auditor's ability to understand what a person is communicating is enhanced if the auditor can better understand all communication from an auditee.   Again Pease comments (on page 10) "*that whenever we call someone 'perceptive' or 'intuitive', we are referring to their ability to read another person's non-verbal cues and to compare these cues with verbal signals. In other words, when we say that we have a 'hunch' or 'gut feeling' that someone has told us a lie, we really mean that their body language and their spoken words do not agree*".

Although there is sound literature on body language, references about its day-to-day application for auditors are sparse. For example, the Institute of Internal Auditing's study text on Internal Auditing (2004:293) discusses fraud investigation interviews. The following paragraph comments on body language. The text starts:

> "*Face-to face meetings give auditors the opportunity and challenge of using body language. Body language adds to the spoken message. This means that you have to read the interviewees' body language and manage your own. You need to be aware of whether the person you are interviewing is interested, evasive, disapproving, wanting to say more, or confused about what you are asking. Typically people who are:*

- *Interested – lean forward and listen intentively – smiling, nodding, saying 'yes – go on'*
- *Evasive – turn away, avoid eye contact and / or fidget*
- *Disapproving – shake their head, grimace or 'tut tut'*
- *Waiting to speak – use hand gestures, lean forward or shift position*
- *Confused – frown and / or look to one side".*

The text concludes by saying that: *"Body language is an important factor in interviewing. It gives you another technique to use to help the interview process".*

On behalf of the Institute of Internal Auditors, I support wholeheartedly the vast majority of the contents of this study text. However, in hindsight I find this particular paragraph both inaccurate and misleading – inaccurate, as an experienced fraudster/con-man will superficially display those body language signs which can make an inexperienced auditor believe that no fraud exists; and misleading, as it does not reflect the importance of percentage of communication that body language can provide, ie 55%+.

However, I accept the Institute of Internal Auditors' last paragraph – that *"body language .... gives [the auditor] another technique"*. My objective is to try to identify that aspect of body language that may be pertinent to a practising auditor and to a level of detail that may potentially help him or her to be better able to identify areas of audit investigation that could/should be pursued.

An audit investigation could be concerned with fraud, and thus the potential dishonesty of an individual. It could also be concerned with the effectiveness and/or efficiency of an auditee in their daily work. In assessing effectiveness, efficiency and honesty, the traditional method employed by an auditor is based on taking a scientifically based sample of the work of one or more auditees. Statistical audit sizes using techniques such as Stop-Go sampling are used. They inform the auditor what were the required minimum number of samples to be checked in a given population size in order for the auditor to be x% certain that only y% ± z% of errors exist in the total population. In practice, as this sample size is often too big to be economically justifiable, a technique known as 'Selection biases associated with non-statistical sampling in auditing' is sometimes used.

This technique is, arguably, a colourful set of words to justify to auditors, audit management and line management why an audit sample size is reduced. In the article by Hall; Hunton; Pierce (2000), it was identified that 85% of all audit sampling applications rely on non-statistical selections. I propose to argue that a good knowledge of body language will assist the auditor to choose his or her non-statistically based sample more effectively.

2.3.4   Aspects of body language

I have approached the examination of body language by reviewing a considerable number of publications on the subject – see bibliography. Those that appeared to me to provide the most clues to the application of the interpretation of body language for auditors are:

Table 2.4
Bibliography of key publications used in summarising body language for auditors

Author	Article or book?	Published	Title
Ayers:Kaplan	A	2003	Review partners' reaction to contact partner etc
Birdwhistell	B	1970	Kinesics & context
Brune	A	2003	The artful interviewer
Ekman	B	1985	Telling lies
Ekman; Freisen:	B	1975	Unmasking the face
Ekman; Rosenfeld; Rosenthal; Kendon et al. Edited:Scherer and Ekman	B	1982	Handbook of methods in nonverbal behavior research
Koller, L	A	2002	To catch a liar
Nierenberg; Calero	B	1985	How to read a person like a book
Pease, A	B	1981	Body language. NB: This work summarises the research of many other researchers
Sielski., L	A	1979	Understanding Body Language, especially P238-242
Vrij; Edward ;Bull	A	2001	People's insight….etc
Waltman;Golen	A	8/1993	Detecting deception during interviews

I accept that overt body language may have different meanings / implications depending on the culture of the interviewee. For example, USA males tend to cross their legs with the ankle of one leg resting on the knee of the other; UK males usually cross their legs at their thighs or ankles. Again, I propose to concentrate on UK mannerisms only.

I also totally accept that, like a good actor, an experienced fraudster can deceive the (inter)viewer into believing what they want him or her to believe. In my studies I have summarised the tell-tale signs that indicate what a person who is other than a really experienced/effective fraudster and/or actor is really thinking. The results are split into three tables:

- Postures and gestures in body language – table 2.5.

- Lower face movements in body language – table 2.6.

- Upper face movements in body language – table 2.7.

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In considering these tell-tale signs, I note the following from Ekman and Freisen (1975: 135-140): *"Facial expressions of emotion are not easy to control. Most people manage their facial expressions, but far from perfectly. People are more practised in lying with words and not faces, and more practised with faces than with body movement……"*

- *"It is easier to monitor your words as you speak them than to monitor your facial expressions…"*

- *"It is easier to falsify words than facial expressions…"*

- *"It is much easier to inhibit what you reveal in your words than what you reveal in your face ... because ... the facial expressions that are triggered during the experience of an emotion are involuntary (although they can be interfered with):*

  - *The eyes are most truthful*

  - *If words are not supported by any emotion, distrust the words*

  - *If words and emotion differ, which is correct depends on the situation*

  - *If an emotion is shown but no words are said, then the emotion is correct"*

All these caveats are to be borne in mind when considering the tables 2.5 to 2.7 below.

Table 2.5

Postures and gestures in body language

Author(s)	Posture / Gesture	What is indicated
Pease, A	Hands clenched together	**Possibly displaying confidence, but more likely showing the user's frustration / negative attitude**
Birdwhistell, R Nierenberg ; Calero Pease, A	Steepled hands	**Confidence. Know-it-all.**
Nierenberg ; Calero Pease, A	Hand over mouth	**Concealment. Dishonesty**
Nierenberg ; Calero Pease, A	Nose touching	**Dishonesty. Doubt of words spoken to person**
Various.	Nose touching (plus possible squirming)	**Doubt, suspicion, puzzlement**
Various.	Drawing finger under nose	**Dishonesty**
Nierenberg ; Calero Pease, A	Ear rub	**Doubt of words spoken to person**
Nierenberg ; Calero Pease, A	Neck scratch	**Disagreement**
Nierenberg ; Calero Pease, A	Collar pull	**Follows after telling a lie**
Nierenberg ; Calero Pease, A Various.	Folded arms	**Defensive**
Various.	Folded arms, moving body away, crossing legs, tilting head forward	**Rejection**
Nierenberg ; Calero Pease, A	Folded arms with hands clenched or hands gripping arms	**Hostility or strongly defensive**
Nierenberg ; Calero Various.	Hands by side: women. Unbutton/take off coats: men	**Openness**
Pease, A	Various combinations of crossed legs, often with folded arms. NB: there are different styles/meanings of leg crossing in the USA compared to the UK.	**Reinforcing a defensive posture.** When linked with slight foot-kicking motion by women, **boredom**
Nierenberg ; Calero	Taking off and fiddling with glasses	**Pausing for thought. Procrastinating**
Nierenberg ; Calero	Hand-wringing	**Tension**
Nierenberg ; Calero	Sideways glance	**Distrust**
Vrij; Edward ;Bull	A decrease in expected movements of hands/fingers, feet and legs. Speaks slower. Smiles more than expected.	**Indicates liars compared to truth-tellers**
Pease, A	Head tilted to one side	**Interest**
Various.	Head tilted to one side, and stroking chin or hand on cheek	**Evaluation**
Pease, A	Head tilted down	**Disapproval**
Nierenberg ; Calero	Open arms and hands. Also, hands open and onto chest.	**Sincerity**
Various.	Sitting forward in chair, tilting head	**Co-operation**

Table 2.6
Lower face movements in body language

Author(s)	Posture / Gesture	What is indicated
Ekman, P	Narrowing of lips	**(Start of) Anger.** Subtle movement. Can be concealed by falsely smiling but look for narrowing before smile is put on. Involuntary
Various.	Biting lip	**Nervousness**
Ekman, P	'True' smile. No other lower-face muscles used, maybe tightening of muscles that circle eyes.	**Happiness, Relief, Amusement** Involuntary
Ekman, P	'Fear' smile. The mouth is extended into a horizontal line	**Fear, Concern** Involuntary
Ekman, P	'Contempt' smile. The mouth is extended into a 'half smile' by a tightening of the muscles in the lip corners and either a slight angling up of the lip corners or when one corner is tightened and slightly raised.	**Contempt** Involuntary
Ekman, P	'Dampened smile' and 'Miserable smile' ie: grinning and bearing it. Lips pressing, lower lip pushed up by the chin muscles, corners of mouth tightened or down. The dampened smile will have tightening of muscles around the eye indicated that there is a degree of enjoyment.	**Negative emotions** Involuntary
All of the above can be replaced by deliberately made smiles; often there is little time between one and the other. (It can be postulated that the more practised an auditee is at creating the impression they want, the less time it takes before an involuntary smile is replaced by a deliberate one.)		
Ekman, P	'Qualifier smile'. A smile with quick, abrupt onset. Lip corners tightened, lower lip pushed up slightly for a moment. Head nod. Down and sideways tilt to head.	**Used to take the harsh edge off an unpleasant or critical message.** Deliberate
Ekman, P	'Compliance smile'. As 'qualifier' but also with eyebrows raised for a moment, a sigh may be heard or a shrug down.	**Acknowledges that a nasty message will be accepted without protest.** Deliberate
Ekman, P	'Co-ordination smile'. A polite, co-operative smile regulates two-way conversation. A slight smile, usually asymmetrical, without eye-muscle movement.	**Shows agreement, understanding, intention to perform.** Deliberate
Ekman, P	'Listener smile'. A co-ordination smile but with head nods.	**Gives encouragement to the speaker to continue what they are saying/explaining.** Deliberate.
In general, false smiles are asymmetrical and will not be accompanied by eye-muscle movement, although the involuntary forehead signals continue. Such smiles may seem to be switched 'on' and 'off', and the 'off' may seem inappropriately quick. *"One may smile, and smile, and be a villain".* Shakespeare. Hamlet 1.v.		

Table 2.7
Upper face movements in body language

Author(s)	Posture / Gesture	What is indicated
Ekman, P	Inner corner of eyebrows are pulled upward, often causing wrinkling on centre of forehead	**Sadness, Grief, Distress, Guilt.** NB: <15% people tested could produce this movement deliberately
Ekman, P	Eyebrows raised and pulled together	**Fear, Worry, Apprehension, Terror** NB: <10% people tested could produce this movement deliberately
Ekman, P	Raising and lowering eyebrows	**Anger, Surprise.** NB: Easy to produce deliberately, so not a reliable indicator.
Ekman, P; Freisen, W	Horizontal brow wrinkles (or existing wrinkles become deeper) accompanied by wider eyes and dropped jaw.	**Surprise** (if brief), **Doubt or Questioning** (if wrinkles held longer)
Ekman, P; Freisen, W	Horizontal brow wrinkles (or existing wrinkles become deeper) accompanied by wider eyes and dropped jaw plus head movement sideways or backwards	**Doubt, Questioning, Disbelief**
Pease, A	Good eye-to-eye contact	**Openness, honesty**
Various.	Extended eye contact	**Confidence**
Nierenberg ; Calero	Blinking rapidly	**Discomfort, Covering-up, Lying**

I earlier commented that good actors can deceive. That is their job. It is interesting to note a 2003 TV advert for Yellow Pages, in which the actor in the "Haircut" requested the hairdresser to cut his niece's hair properly, thanked the hairdresser and commented that the hairdresser was a very nice person. At the same time, the actor's body gestures, when viewed from outside the hairdresser's shop window, displayed the actor telling off the hairdresser comprehensively. Separately, both words and gestures were totally believable. But together, they made no sense because of the different stories they told. For me, watching this discrepancy was most disconcerting. Arguably, it was that disconnection which made the advert memorable and, for me, the advert reinforced the importance of body language as a means of communication. ('Yellow Pages'. Script by Abbott Mead Vickers Advertising Agency (2003)).

Another example is given in Beattie, Visible Thought (2004:171) in which, in an interview with President Clinton, it is noted that when Clinton said that "I did not have sexual relations with that woman, Miss Lewinsky", the index finger of his right hand was pointing away from his body, his other fingers were curled, and his hand made rapid downward movements at the start of each false word. It is also notable that this

publication, which is one of the more recent and well reviewed of its subject, also makes frequent reference to Ekman, Handbook of Methods in Nonverbal Behavioral Research, Telling Lies (1985).

The conclusion must be that body language is the best possible interpretation of several, sometimes mutually misleading signs, postures and gestures. Practice does not make perfect, but training, linked with practice, will improve their correct interpretation. The reader is also directed to Appendix 1 of this thesis that provides a 'Check-list of Lies', taken from Ekman.

From the above, I re-confirm my existing proposition that: *An interviewee's body language actions will provide indication to the interviewer that the interviewee is being dishonest, deceitful and/or otherwise providing incomplete information, and that an interviewee, however well practised, cannot fully prevent all unintended disclosure to a trained interviewer.*

2.3.5 Propositions resulting from the review: Communication of information and its benefits

Given that an auditee is being interviewed by a seasoned, competent interviewer:

I postulate that it is in the 'initial meeting' and 'obtaining a personality reading of the auditee' that the existence of potential information known by but not orally communicated by the auditee can occur. **Initial Proposition K**

I postulate that, at this initial stage of the audit process, suspicion of potential information known by but not orally communicated by the auditee, could inform the determination of the audit's subsequent interviewees, audit sample sizes, etc, ….
Initial Proposition L

….. and that using the information obtained during this process will improve the effectiveness of an audit, ... **Initial Proposition M**

...... and that this will be especially so if carried out in the scoping process of an audit prior to the full audit being carried out. Initial Proposition N

2.3.6 Propositions resulting from the review: Interpretation of body language and its benefits

I therefore suggest that:

A good knowledge of body language will assist the auditor to do his/her work more effectively. Initial Proposition O

I suggest that an auditor trained in understanding and interpreting body language:

- **Will be better able to identify dishonest, deceitful and/or otherwise incomplete information imparted by an auditee than an auditor untrained in reading body language.** Initial Proposition P

- **Will not, unless very highly trained, be able to identify all cases where dishonest, deceitful and/or otherwise incomplete information is imparted by an auditee.** Initial Proposition Q

I suggest that an auditor can be trained to interpret an auditee's body language to identify if it is dishonest, deceitful and/or otherwise provides incomplete information. Initial Proposition R

I suggest that this knowledge will improve the effectiveness of an audit. Initial Proposition S

I also suggest this will be especially so if carried out in the scoping process of an audit prior to the full audit being carried out. Initial Proposition T

2.4 Forensic audit and associated psychology

In this section I consider whether forensic accounting and associated psychology have a place alongside behavioural auditing in assisting auditors to be more effective in identifying potential fraud.

Figure 2.8

Detailed schematic; Forensic audit
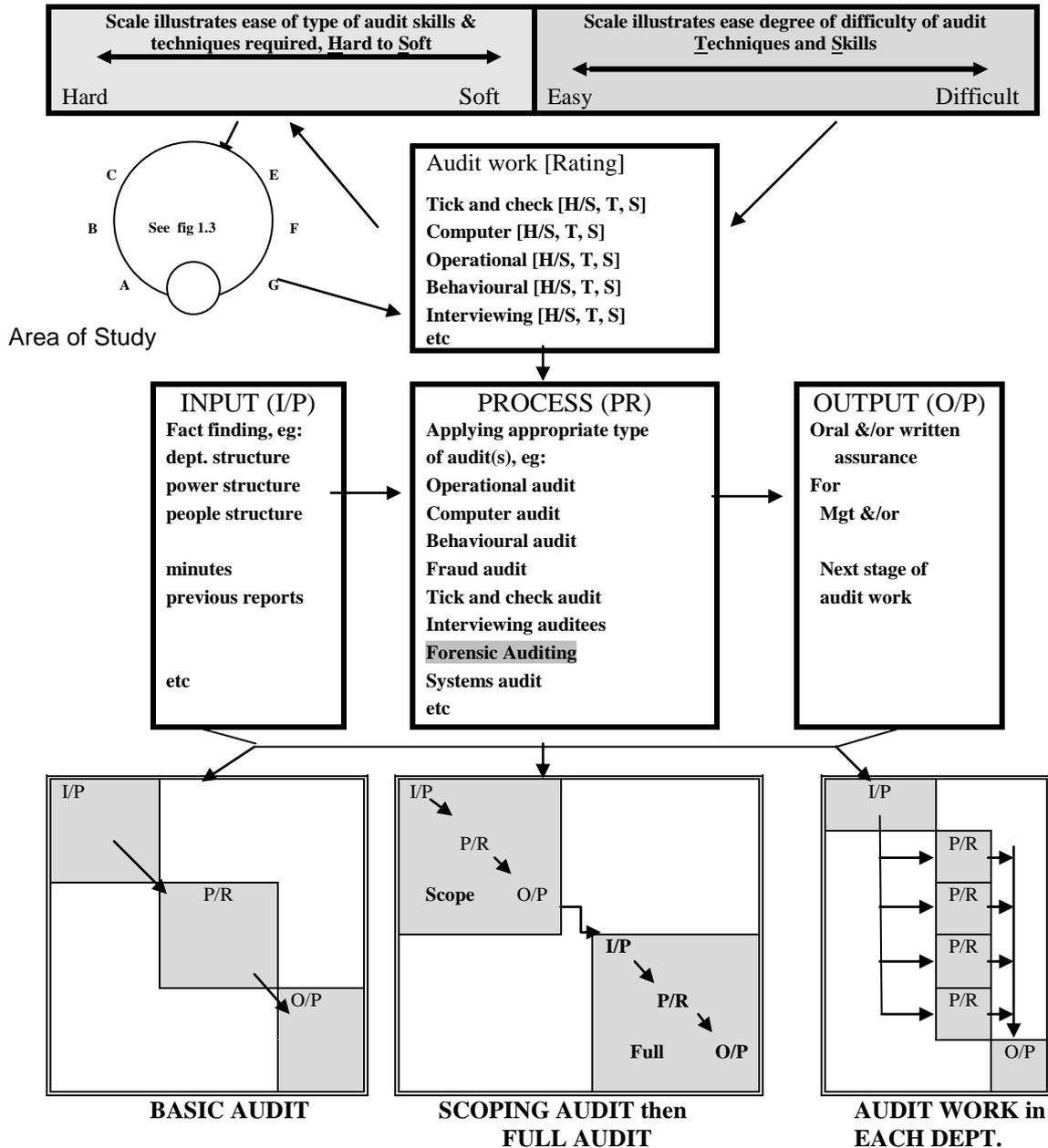
'Hard'/'Soft' = (H/S)   Technical complexity = (T)   Skill required = (S)
Quantity and quality of work = (w). Work carried out in time = (t).
Assume auditing department of company in which likely fraud exists.
Objectives are to maximise effectiveness of audit and likelihood of finding fraud

Forensic accounting *"deals with the relationship and application of accounting facts to legal problems"* – see Bologna and Lindquist (1987: PPs 35, 39, 85, 91-94).

However, there is limited further literature available on either forensic accounting or on forensic auditing, save for Bologna and Lindquist's book. It was earlier noted that one definition of behavioural auditing could be derived from behavioural accounting. In the same way, the definition of forensic auditing could be extrapolated from that of forensic accounting, namely that '*Forensic ~~accounting~~ auditing is the element of ~~accounting~~ auditing dealing with the relationship and application of audit facts to legal problems*'. It is on this basis that I considered whether forensic auditing could add anything further to this research.

It is noted by Bologna and Lindquist (esp. PPs 35, 85, 91) that:

"The forensic accountant works almost always on a reactive basis, but ..... the fraud auditor tends to be involved on an active basis. The auditor's role usually tends to be involved with the aspects of prevention and detection (in a corporate or regulatory environment). Also that *"Fraud auditing is more of an intuitive process than it is a formal, analytical methodology – it is more an art form than it is a science. ..... Forensic accounting/auditing is a general term used to describe any investigation of a financial nature that can result in some matter that has legal consequence"*.

This book defines some of the mental qualities required by a forensic accountant/auditor (esp. PPs 39, 92-94), as:

- Creativity
- Curiosity
- Common sense
- Business skills
- Confidence
- Perseverance
- Intuition

I suggest that, with perhaps the exception of Creativity and Intuitivity or Intuitiveness, these skills are not any different to those required by any auditor.

Here creativity is explained "as *the ability to step out of what would otherwise be a normal business situation and consider alternative interpretations that might not necessarily make business sense"*.

The ability of forensic/fraud auditors and detectives is explained as that which "*tend[s] also to be intuitive in the sense that they enjoy solving new and different problems given a minimum amount of information ...*[they can] *theorise about the facts and play on hunches in circumstances in which evidence is sparse, destroyed or sometimes even non-existent. They are sensitive to non-verbal cues ... they rely more on ingenuity in their work than on a canned audit program*".

Bologna and Lindquist then relate their proposition that fraud auditors are required, amongst other things, to be creative and intuitive to Carl Jung's work on decisional classifications. Applying Jung's analysis to auditors, they quantify:

Table 2.8

Linking structural and behavioral considerations for auditors

Structural considerations	Behavioral considerations
Overt Aspects	Covert Aspects
Hierarchy	Attitudes
Financial Resources	Feelings
Goals of the Organisation	Values
Technological State	Norms
Performance Standards	Interaction
Efficiency Measurement	Supportiveness
	Satisfaction

They comment that….. "*Fraud auditors tend to pre-occupy themselves with the behavioral aspects of control, and explain an auditor's sixth sense* [or auditor's nose] *……as utilisation of deductive reasoning*".

These findings are sufficient for the understanding of the place of forensic auditing within my sphere of research; that is not to say that further work on forensic auditing cannot be done - and it is of course noted that forensic auditing is a complete research topic in its own right. From the definitions and practical explanations of what a forensic auditor is,

and what and how they work, this brief section serves to illustrate that an effective forensic audit is different from traditional auditing in that it does utilise behavioural and intuitive skills.

I therefore argue that forensic auditing is a research area that will potentially offer further insight into one of the uses of behavioural auditing and whose study may yield further practical assistance to the behavioural auditor.

<u>Intuition and Psychology</u>

As part of the limited research carried out on forensic auditing, references were found which referred to 'intuition' and to its associated 'psychology'. It is therefore proposed to link work on this topic to any future research on forensic auditing.

2.5   Summary and conclusion

The subject of this study is behavioural auditing; what it is; what auditors understand it to be; how auditors can use it in their work. The research has identified that there appears to be little previous research in this area; indeed, a definition of behavioural auditing has been formulated from this research – see paragraph 5.6 below.

This study has proposed that the practical application of behavioural auditing by auditors – external, internal, or audit consultants – will make audits more effective. Therefore, this study also examined the impact of the potential practical application of the use of behavioural auditing to identify potential frauds and as a part of fraud investigations. In addition, it examined what training currently exists to explain and teach the above to auditors.

This research led to twenty initial research propositions, listed as A to T above, which, in chapter three, have been combined together into six groups of research postulations (RPs):

RP.1

- Neither auditors nor auditees have a clear understanding of what behavioural auditing is, nor of its advantages/disadvantages of behavioural auditing, so

- The definition of behavioural auditing needs to be clearly established and agreed.

RP.2

- A better understanding of behavioural auditing will be measurably helpful to the auditing profession, especially so if carried out in the scoping process of an audit prior to the full audit being carried out.

RP.3

- During the '*initial meeting' and 'obtaining a personality reading of the auditee'* processes, and especially if carried out in the scoping process of an audit prior to the full audit being carried out:
  - the existence of potential information known by but not orally communicated by the auditee can occur
  - the suspicion of potential information, known by but not orally communicated by the auditee, could inform the determination of the audit's subsequent interviewees, audit sample sizes, etc
  - using this information will improve the effectiveness of an audit.

RP.4

- A good knowledge of body language, carried out by an auditor trained in understanding and interpreting body language, will assist the auditor to do his/her work more effectively. This knowledge will improve the effectiveness of an audit, especially so if carried out in the scoping process of an audit prior to the full audit being carried out.

RP.5

- There is a general lack of adequate training on behavioural auditing. Its provision will improve the effectiveness of auditors.

RP.6

- An auditor can be trained to interpret an auditee's body language to identify if it is dishonest, deceitful and/or otherwise provides incomplete information.

My overall conclusion from chapter two is that further research into behavioural auditing will be of both academic and practical benefit; this work will further the knowledge, understanding and application of behavioural auditing and, when applied in conjunction with other audit skills, will improve the effectiveness of auditors.

In chapter three, I intend to consider the best ways to test the six postulations, for example, by:

- obtaining feedback from internal auditors, external auditors, audit consultants, academics specialising in audit, and audit students
- the use of electronic surveys and/or one-to-one interviews and/or group interviews
- creating and using filmed scenarios to obtain feedback about a practical application of behavioural auditing.

I propose also to consider the population required to test these postulations adequately.

Chapter 3   Summary and consolidation of research propositions. Research design, methods and methodology

3.1   Introduction

The work above identified twenty research propositions, A to T, which have been consolidated into six postulations, and have then been combined into three distinct research stages:

I   Behavioural auditing; what it is and what is understood by it in the auditing community, and the postulation of a definition of behavioural auditing. (Research postulations 1 and 2).

II   Gathering and using information available from the application of the techniques of behavioural auditing and body language, and whether its use make audits more effective. (Research postulations 3 and 4).

III   An assessment of training available in behavioural auditing and in body language for auditors, and whether the application of training will improve the effectiveness of audits. (Research postulations 5 and 6).

These stages are associated with the Initial Propositions in Chapter 2 thus:

Table 3.1

Linking initial propositions to research postulations to potential tests

Initial Proposition (from Chapter 2)	**Research Postulations, ref:**	**Stage**		
		I	II	III
Initial Propositions A,B,C,D,E,F	Research Postulation [RP.]1	√		
Initial Propositions G,H,I	Research Postulation [RP.]2	√		
Initial Propositions K,L,M,N	Research Postulation [RP.]3		√	
Initial Propositions O,P,Q,S,T	Research Postulation [RP.]4		√	
Initial Propositions J	Research Postulation [RP.]5			√
Initial Propositions R	Research Postulation [RP.]6			√

STAGE I

I suggest that the existing definitions of behavioural auditing are inadequate, as they are incomplete. I propose that behavioural auditing has three elements:

- Study of the auditee and the quality of the work they do.
- Study of the auditee and the quality of their contribution to the culture of their employing company.
- Study of the auditee and their personal qualities, including effectiveness and honesty.

RP.1: - What is behavioural auditing?

I postulate that:

- **Neither auditors nor auditees have a clear understanding of what behavioural auditing and the advantages/disadvantages of behavioural auditing.**

- **The definition of behavioural auditing needs to be clearly established and agreed.**

To act as a basis for discussion, the following possible definitions which were proposed above are summarised:

3.1   Behavioural auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and their work.   (Initial proposition A – see p29)
or
3.2   Behavioural Auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and the work they undertake in order to meet the demands of the employer. Appropriately trained staff only carry it out. It seeks to provide assurance to an employer that it is making the most effective use of its staff.   (Initial Proposition B – see p30)
or
3.3   Behavioural auditing is that dimension of auditing concerned with the human behaviour of staff, the quality of the staff and the work they undertake in order to meet the demands of the employer. It also examines whether it is possible to provide assurance that the employer provides the right processes to enable its staff to be as effective as possible. Experienced auditors who have had appropriate training in assessing and dealing with human issues undertake it.   (Initial Proposition C – see p 31)

RP.2: - Measurable advantages of understanding and using behavioural auditing

- **I postulate that a better understanding of behavioural auditing will be measurably helpful to the auditing profession, especially so if carried out in the scoping process of an audit prior to the full audit being carried out.**

Measurability is defined as improving the effectiveness of the audit ($\in$). $\in$ is defined as $^w/_t$ where w is the quality and quantity of audit work, and t is the time required to fully complete all aspects of the audit of a department.

STAGE II

RP.3: - Gathering and interpreting available information using behavioural auditing techniques.

I postulate that during the *'initial meeting' and 'obtaining a personality reading of the auditee'* processes, and especially if carried out in the scoping process of an audit prior to the full audit being carried out:

- **the existence of potential information known by but not orally communicated by the auditee can occur**
- **the suspicion of potential information, known by but not orally communicated by the auditee, could inform the determination of the audit's subsequent interviewees, audit sample sizes, etc**
- **using this information will improve the effectiveness of an audit.**

RP.4: - Gathering and interpreting available information using body language techniques

I postulate that a good knowledge of body language, carried out by an auditor trained in understanding and interpreting body language, will assist the auditor to do his/her work more effectively. This knowledge will improve the effectiveness of an audit, especially so if carried out in the scoping process of an audit prior to the full audit being carried out.

STAGE III

RP.5: - Training auditors in the use of behavioural auditing

I postulate that there is a general lack of adequate training on behavioural auditing and that its provision will improve the effectiveness of auditors.

RP.6: - Training auditors in the use of understanding body language

I postulate that an auditor can be trained to interpret an auditee's body language to identify if it is dishonest, deceitful and/or otherwise provides incomplete information.

3.2 Methodology for testing – Research questions 1 and 2

Behavioural auditing: what it is and what is understood by it in the auditing community. To postulate a definition.

If the scope, attributes, advantages, disadvantages, users, recipients, etc, of behavioural auditing were well known and were well defined, quantitative testing of behavioural auditing would be (relatively) straightforward. Neither is. For this reason, the proposed approach will be to select different types of people [*respondents*] who are:

- experienced and inexperienced auditors, whether internal, external or audit consultants, and line managers, who are potentially interested in:
    - knowing more about behavioural auditing, and/or
    - already using behavioural auditing, or not, and/or
    - teaching it, and/or
    - benefiting from its use.

For simplicity, I have categorised these potential respondents as: 'Practitioners', 'Academics' and 'Students'. I note that because there is a wide range of different types of people to be sampled, inevitably a large and not small sample size is required.

In contacting this potential sample, and by the very nature of the subject, qualitative questions need to be used, for example, '*What is the best definition of behavioural auditing?*'   However, in order to more easily and effectively compare the results of the findings, it is proposed to frame the questions to generate answers which can be quantifiably compared against each other, for example, given three potential definitions of behavioural auditing '*What is the best definition of behavioural auditing suggested, 3.1, 3.2 or 3.3?*'

Before determining the best method of potentially obtaining the respondents, three criteria were identified as key;

- Number of respondents
- Type of respondent;
  - external auditor, internal auditor, audit consultant, line manager, and, for each of these, their degree of experience/seniority
  - audit academics with interest in auditing
  - audit students
  - type and number of employing organisations

The objectives are to:

A. ensure a *statistically adequate* number of respondents are sampled, whilst

B. maintaining the *objectivity* of the *sample* selected, whilst ensuring

C. an appropriate *mix by number* of the of *type of respondent*, and whilst

D. *minimising the cost*, time and difficulty in obtaining the sample.

Five different methods were considered. They are not mutually exclusive.

1 Write an article in one or more professional journals, inviting would-be respondents to contact the researcher. [*Respondent driven*]

2 Approach respondents known to the researcher which meet the appropriate level of stratification by type of respondent. [*Respondent select*]

3 Obtain feedback from respondents selected by an organisation. The researcher selects the organisation. The organisation selects the respondents in order to provide an appropriate stratification by type of respondent [*Respondent and organisation select*]

4 Approach a large number of randomly selected respondents from organisations already known to the researcher [*Respondent random, organisation select*]

5 Approach a large number of randomly selected respondents irrespective of their organisation [*Respondent and organisation random*]

These different sampling methods all have their advantages and disadvantages.

Table 3.2

Summary of advantages and disadvantages of different possible methods of sampling

Different methods considered	Objectives				Comment
	A	**B**	**C**	**D**	
1. Resp. driven	X	√	X	√	As many advantages as disadvantages
2. Resp. select	X	X	--	√	A limited number of known respondents
3. Resp. & Org. select	√	--	--	√	Both these methods have the advantage that some work is done
4. Resp. random Org. select	√	--	√	--	By the organisation; a trade between cost – v – sample objectivity
5. Resp. & Org. random	√	√	√	X	This method gives the largest potential sample, but is most costly.

√ = good,   -- = OK,   X = poor

From the comments given in table 3.2 above, methods 1 and 2 were dismissed as not good enough. This leaves three methods:

3. Contacting organisations and asking them to ask their staff to feedback information as described in the remainder of this chapter

4. Contacting staff who work in organisations where it is known that they will have a large number of staff, whose experience and knowledge would meaningfully assist the process described in the remainder of this chapter

5. Contacting a large number of staff sourced, for example, from the membership of the IIA and from personal contacts and contacts of contacts. In addition, contacting audit consultants, academics, students, and chartered accountants, either known to the author or by contacts of the author.

In all these options, I propose to obtain the information from a questionnaire that I will draft.

Experience tells us that that the response to 'cold-call' style questionnaires, which is the main constituent of method 5, may be poor. In addition, the proposed methods of contact, e-mail or post, are both time consuming and may be expensive. It is suggested that the high number of potential respondents that this method may generate, makes it potentially most attractive. However, and as previously noted, these three remaining methods are not mutually exclusive.

My chosen route was therefore to both send out the questionnaire initially to randomly selected IIA students and then to known/suggested:

- chartered accountancy companies,
- universities,
- commercial organisations, and
- audit consultants,

and ask them and, as appropriate, their colleagues, staff and/or students, to meet to work through the questionnaire. It is envisaged that this will potentially and efficiently increase the returns with no increase in cost. The information to be obtained is specified below in sections 3.2.1 to 3.2.3 below.

For this stage I propose to obtain answers to my questionnaires by either:

- having a large number of questionnaires returned by e-mail, and holding only a few face-to-face interviews to complete the questionnaires and also expand the information provided by the interviewees to make it more qualitative

or, if as often happens that responses to the e-mail questionnaires is poor, to:

- increase the subsequent number of face to face interviews

3.2.1   Process, stage i

The method of testing these research questions/postulations will be initially by written pilot questionnaire to a small number of known audit, managerial and academic contacts. This will test the comprehensibility, validity and potential effectiveness of the proposed questionnaire.

Following feedback to the pilot, and any required modifications that are made, the final version of the questionnaire will be sent out as described above.

3.2.2 Sample selection, stage i

The population of this sample will be:

- Members of the Institute of Internal Auditors, UK and Ireland – range of up to 500 electronic replies sought and, depending on response to that, between 25 and 3 interviews sought.

- Selected partners, managers and auditors responsible for both internal and external auditing in major external audit companies – range of up to 50 electronic replies and then, depending on response, between 10 and 3 interviews sought

- Technical HQ and audit managers in the CCAB and IIA institutes Ireland – range of, say, 3 interviews sought

- Academics/students – range of, say, 3 interviews sought.

3.2.3 Variables, stage i

The questionnaire will ask the individual sampled to consider the three proposed definitions of behavioural auditing (3.1, 3.2 and 3.3) given above. It will then invite them to define their understanding of behavioural auditing and then measure points i to vii below against each of the three (or four) definitions. In each case, the results are to be measured against a 5-point Lickert scale.

i. Existing understanding of what behavioural auditing is by individuals sampled.

ii. Frequency of use of behavioural auditing by individuals sampled.

iii. Use of behavioural auditing in proportion to other types of auditing by individuals.

iv. Practical advantages of behavioural auditing in their work.

v. Practical disadvantages of behavioural auditing in their work.

vi. The individual's subjective opinion of what they think their customers, managers and subordinates (would) think about behavioural auditing, quantified against a Lickert exampled scale of: Practicality; Usefulness; Effectiveness.

vii. Training received in behavioural auditing, again measured and against an exampled scale of each of: Quantity, Quality, Usefulness.

The results should enable the proposal of a definition of behavioural auditing and an indication of its usefulness to audit practitioners.

Feedback of those results will then be provided in order that mutual benefit by both practitioners and students/academics will be obtained.

3.3 Methodology for testing – Research questions 3 and 4

Gathering and interpreting available information using behavioural auditing techniques

3.3.1 Process, stage ii

The method of testing RQs 3 and 4 will be as per 3.2 above, ie initially by written questionnaire and then by selected one-to-one interview or a meeting(s) which will be carried out contemporaneously with 3.2 above.

3.3.2 Sample selection, stage ii

The population will be identical to that for 3.2 above, ie practitioners and academics/students. (To avoid repetition below, I have described both Practitioners and academics/students as "auditors", and I apologise in advance for labelling academics with this simplified epithet.)

3.3.3 Variables, stage ii

Each person sampled will be asked to comment in complete confidence on the following questions:

- At the initial or scoping interview with a potential auditee, what causes the auditor significantly to alter the potential depth of the audit work you would otherwise expect to be carried out? (Although primarily a quantitative analysis, a brief qualitative explanation of these answers will also be sought.)

- What was the practical impact of the initial interview in terms of subsequent sample size of the work carried out by the auditor, as measured by the variation from the appropriate statistically-calculated sample size?

- How many fraud interviews have you undertaken/do you normally undertake per annum?

- How many interviews have you undertaken that were subsequently re-classified as the first (initial) interview of a person subsequently suspected of fraud?

The results should lead to quantification of the use of one of the practical uses of behavioural auditing – the gathering and interpreting of information about potential auditees. It will also lead to quantification and better understanding and use of body language, which is one of the soft skills used by (behavioural) auditors in the gathering and interpreting of information about potential auditees.

Feedback of those results will then be provided in order that mutual benefit to both practitioners and students/academics will be obtained.

3.4 Methodology for testing –Research question 5

At the time of considering this element of my research (in 2007), there were no courses for auditors offering either behavioural auditing training or body language training listed by the:

- Institute of Internal Auditors - UK and Ireland, or
- Institute of Internal Auditors – Inc, or
- CCAB institutes, or
- Top 4 UK Chartered Accountancy companies.

Occasional seminars, such as the Detection of Deception run on behalf of Price WaterhouseCoopers for the 2006 annual meeting of the American Accounting Association were noted, as well as courses reported by interviewees which were hosted by ex MI5-type civil servants on fraud detection.

This is an area of potential opportunity and is reflected in the detailed feedback from the interviews reported in chapters 4, 5 and 6, as well as the results given in paragraph 6.6.

3.5 Methodology for testing – Research question 6

Auditors that are trained in behavioural auditing and body language can more effectively identify those auditees who provide incomplete or dishonest information.

The objective of this stage of testing was to determine whether knowledge of body language can assist an interviewer to determine whether the interviewee is being 'economical with the truth', or not, in answers to the interviewer's (ie auditor's) questions. The degree of 'economy' identified will be, potentially, a significant contributory factor when the auditor determined the sample size of work to be carried out by the audit team in the auditee's area. In other words, if an auditor trained in interpreting body language is certain that an auditee is trying to mislead in their answers to the auditor's questions, then they will adjust the potential audit time upwards and accordingly.

Unlike research methodologies proposed previously in this paper, the assessment process is far more inherently subjective – it will tend to include qualitative as well as quantitative analysis. Considerable care was therefore taken to examine the best form of research strategy. In Brynan, Bell (2003: 61,62), the merits of Experimental, Cross-sectional, Longitudinal, Case Study and Comparative research designs are compared. Experimental and longitudinal approaches were not pursued for this stage as neither easily fitted the need to examine the current way auditors used or could use body language in their day-day auditing work. However, and for the following reasons, a case study-based approach appeared to be appropriate as:

i   Auditors are used to going into a new situation and being asked to examine the business/people/organisational scenario they find in order to assess what audit work is required

ii   The final stage of the professional examinations for auditing and accounting bodies consist of a case study

iii   "Case study research studies the detailed and intensive analysis of a single case" (Brynan, Bell 2003: 54), whether that is a real or an imaginary scenario.

iv   I have had experience in setting case studies and thus this method was one that I felt comfortable with.

Especially bearing in mind point ii above, presenting a case study or studies about an auditee who is being 'economical with the truth', and then asking auditors to give their opinion about how effective, efficient, and, especially, honest the auditee appeared to be a is possible way forward.

However, and given previous work that I have done on setting professional examinations, I was concerned that the information obtained from such a process would depend considerably on:

- the quality of the case study; the questions it poses must be specific enough to obtain clear, unambiguous and quantifiable answers from those taking part. To do this, it would be very important to avoid questions that are ambiguous, long, double-barrelled generalistic and/or negative.

- the practicality of the case study; the questions it poses must enable the auditor to clearly identify body language that quantifies and illustrates different degrees of potential 'economy with the truth'.

Again, in Brynan, Bell (2003: 168, 169) I noted the use of vignette or scenario questions. These are "*mainly closed questions that are used in connection with the examination of people's normative standard. The technique comprises presenting respondents with one or more scenarios and then asking them how they would respond when confronted with the circumstances of that scenario*". This approach is within my professional experience. It has the added potential bonus that it is regularly used as a commercial business training technique (for example, by Video Arts Ltd.) that may be appropriate to develop for auditors in the future.

Finch (1986: 105-114) describes the use of the vignette technique in survey research as "*short stories about hypothetical characters in specified circumstances to whose situation the interviewee is invited to respond*". This is precisely what appeared to be appropriate.

Finch's note examples various ways that this technique can be used, for example, "*Fay Lomax Cook (1979) used eight vignettes per interview and followed them with a fixed set*

of five questions about whether the interviewee was sympathetic to the situation described, asking for a simple yes/no/don't know response to each". The author also discusses whether this technique is more appropriate with open or close-ended questions and cites the more common style of vignette that is followed by fixed-choice responses plus an open-ended question. The author then proceeds to identify pitfalls concerned with the vignette (or Scenario) technique, specifically how the responses are to be interpreted, and then usefully observes some practicalities that have helped her, specifically:

> *"By constructing a series of vignettes which systematically vary the age, gender, race, occupation, degree of need, and so on, of the characters, in such a way as to enable the researcher to identify which elements triggers a particular response. The obvious disadvantage of this approach is that the number of elements which can be systematically varied must necessarily be small."*

This research also points to the need to pilot and then fine-tune the vignettes or scenarios prior to aggressive use.

It is therefore proposed to use this method of research for stage iii of this study as described below. Finally, the OED defines a "vignette" as "a short character sketch". "Scenario" comes from the Latin "scene". I have therefore chosen scenario as opposed to vignette as a more easily accessible/understandable term to describe what I want to do.

3.5.1   Process, stage iii

The method of testing RQ6 is:

- Three or four separate but identically set up workshops designed and led by myself and featuring one actor who plays the role of an auditor, and, off camera, another actor asking the questions as an auditee. Different scenarios will be presented to the population who attend the workshop. These will both inform and train the attendees about the body language that might be used by fraudsters.
- Written questionnaires and oral feedbacks by the attendees during and immediately after each of the workshops.

3.5.2   Sample selection, stage iii

Subject to availability, invitations will be sent to a sample of those practitioners, academics and students, who took part in the questionnaire (3.2 and 3.3) above, and/or students currently studying audit to degree or further degree level. The target is to present the scenarios to approximately 50 auditors and student auditors who are both inexperienced and experienced auditors. Each attendee will be asked to provide appropriate demographic data.

Subject to availability of auditees, and, if possible, it would be preferable to have a bias to, say, internal auditors in workshop 1, students/ academics/institute staff in workshop 2, and external auditors/consultants in workshop 3.

3.5.3   Variables – 1st session, 1st workshop, stage iii

To present five virtually identical 5-minute (maximum) scenarios to attendees.

Two actors; actor 'A', the 'finance manager' and actor 'B', the 'auditor', will present the scenario. Actor 'A' is answering questions posed by actor 'B'.   The questions display that the auditor does not suspect a fraud, and the oral answers in themselves give no indication that a fraud might exist.

The actors will use the same words, and the same intonation of those words, from one scenario to the next but actor 'A' will display different levels of fraud; **N**on-existent, **S**ome or **L**ots.

The attendees are told that they are there to debate and improve interview techniques and, as part of this process, session 1 will ask them to watch two actors and make notes on what they see and hear. They are asked to give a Lickert type score of what they thought of the auditor or the finance manager against each of the following:

Table 3.3
Assessment of questions and answers

Test	Interviewer	Interviewee
Experience displayed	as an auditor	as a finance manager
How much common sense is displayed	in the questions posed	in the answers provided
Number of questions not asked that	should be asked	the manager expected to be asked
Awareness of the	auditor to the auditee's answers	auditee of the auditor's questions
Flexibility of the	questions given and the nature of the answers received.	answers given and the nature of the questions received.

Table 3.4
Classifications for qualitative assessments

Scenario	Actual words Used (By actor A)	Intonation of words (By actor A)	Facial movements (By actor A)	Body movements (By actor A)
1	N	N	N	N
2	N	**S**	N	N
3	N	**S**	**M**	N
4	N	**S**	N	**M**
5	N	**S**	**L**	**L**
Levels of fraud; **N**on-existent, very **Small** (ie: on 2 words only) **M**ore or **L**ots.				

This whole process will be repeated for Scenario 2, then Scenario 3, then Scenario 4 then Scenario 5.

After each of these scenarios, the attendees will be progressively asked to specify in greater detail the traits that the interviewee was displaying, and their interpretation of those traits.

After Scenarios 1 to 5 have been completed, I will explain what the process was.

After each scenario and its written feedback is handed in, I will also run a brief open debate to discuss:

- What are the most indicative forms of body language?
- What lessons can be learnt from that scenario?
- What body language, if any, can the auditor use to attain open / truthful responses from the auditee (eg, mirroring)?

3.5.4 Variables – 2nd session, 1st workshop, stage iii

Objectives are to:

- Analyse what attendees learnt about body language as a measure of how effective, efficient or honest and auditee is.
- Explain to attendees how observation of body language can be used to maximise their effectiveness as an auditor during the interview process – not just as a fraud auditor, but using the full range of skills required by a behavioural auditor.
- Measure their use of the application of body language skills.
- Obtain qualitative feedback about body language, its use, and training they have had or believe they need in body language skills.

3.6 Summary and conclusion

This chapter identifies the practical methodology which will test my proposals and propositions to identify a would-be definition of behavioural auditing and then to quantify its potential benefits.

It identifies the need to use a potential mixture of techniques – electronic surveys, one-to-one interviews and feedback of the viewing of recorded scenarios – to obtain feedback about my proposals and propositions, all of which will be tested by obtaining the views of those proposals and propositions from a mixture of internal auditors, external auditors,

audit consultants, student auditors and auditors working within the academic world. The required population sizes have been proposed.

This work identifies that the best way forward would probably be to contact a large number of professional auditors sourced, for example, from the membership of the IIA, as well as from personal contacts and from other auditors recommended by my contacts.

This work rejects the methods of, for example, placing an article in a professional auditing magazine, or only contacting individuals personally known to me.

It also noted that, if required, I could contact organisations and ask them to ask their staff to feedback information as described in the remainder of this chapter (and, in practice, this was done to increase the number of external auditors interviewed).

Since starting this research, and at this stage of that research, many academic and auditing colleagues commented that not only will more clarity about behavioural auditing be useful, but especially that they are excited about the potential result of combining auditing, body language and interviewing techniques in order to understand auditees better.

My conclusion is, therefore, that I should progress with testing my research propositions. Chapters 4, 5 and 6 show the results of that testing.

Chapter 4 <u>Behavioural auditing survey - quantitative analysis</u>

4.1 Introduction

Initially, my intention was to analyse the views of auditors about behavioural auditing by seeking answers to an electronic questionnaire. I then intended to support it by a very limited number of qualitative one-to-one interviews.

On 15th December 2006 I sent this survey to 515 internal auditors, external auditors and audit consultants who were randomly chosen members of the Institute of Internal Auditors, UK and Ireland.

The survey posed identical questions to those that I trialled in the pilot survey which was sent to 15 recipients, the only difference being that as a result of the feedback received, the format of presentation of the questions posed in the main survey was crisper than in the pilot. All replies were received electronically. The results were added to those of the pilot survey.

The response rate to the electronic survey was exceedingly poor; including the pilot, a total of 33 replies was received.

Because of the small number of "quantitative replies", I considerably increased the number of qualitative interviews. That was increased to 31 individuals and, again, these individuals were selected from internal auditors, external auditors or audit consultants, though many had experience of two or of all three of those disciplines. The interviews, which were all recorded, lasted for up to 35 minutes.

I did not interview anyone who had replied to the electronic survey individually.

As my selection of interviewees for the qualitative survey was subjective, I took care to ensure a good spread of interviewee ages, employment sector and professional backgrounds.

4.2 Sample selected and interviews carried out

Of the 33 replies that I received from the electronic questionnaire:

- 21 were received from auditors who had experience only of internal audit,
- 1 was received from an auditor who had experience only of audit consultancy,
- 1 was received from an auditor who had experience of both internal and consultancy audit,
- 7 were received from auditors who had experience of both internal and external audit, and
- 3 were obtained from auditors who had experience of all three types of audit.

Of the 31 interviews that I conducted:

- 12 were with auditors who had experience only of internal audit
- 3 were with auditors who had experience only of audit consultancy
- 5 were with auditors who had experience only of external audit
- 4 were with auditors who had experience of both internal and consultancy audit
- 1 was with an auditor who had experience of both internal and external audit
- 4 were with auditors who had experience of both consultancy and external audit, and
- 2 were with auditors who had experience of all three audit disciplines.

In the detailed statistical analysis that I carried out on this information received (see appendix 2), I combined the results obtained from the interviews and the electronic feedback, thus:

- 33 - internal audit experience
- 4 - audit consultancy experience
- 5 - external audit experience
- 5 - internal and consultancy audit experience
- 8 - internal and external audit experience
- 4 - consultancy and external audit experience, and
- 5 - auditors with experience of all three audit disciplines.

In summary, of the 63 questionnaires completed, the range of audit experience was:

- Internal – 51 (56%); Consultancy – 18 (20%); External – 22 (24%).

4.3　Structure and index of the comparison of survey results in this chapter

As the interviews were personalised, I took more time to explore the areas that could not be fully examined in the electronic survey. The electronic survey asked nine questions (1 to 9); in the interviews I increased this to fifteen questions (1-15).

I have mapped and linked comparative electronic and interview question numbers against each other, and I have also broken the questions down into three groupings:

- the "What is behavioural auditing " questions.
- the "Practical use of behavioural auditing – body language and fraud identification" questions.
- the "Background and general" questions.

The result, which is given immediately below, forms an index to this chapter.

Structure and index to chapter 4

Electronic questions	**Interview questions**	**See para**

4.4 **What are the elements of behavioural auditing?**

In questions 1 and 2 of the electronic questionnaire I asked auditors to give their opinion on what were the key element or elements of behavioural auditing, and to rate them on a scale ranging from 1 to 5: strongly disagree is a (1) and strongly agree is a (5).

The eleven elements that I gave for consideration were:

1.1   Audit nose ("whites of eye test")

1.2   Information/decisions

1.3   Judging people

1.4   Management

1.5   Motivation

1.6   Auditing motivations

1.7   Relationship vis a vis accounting

1.8   Relationship vis a vis information

1.9   Reporting

1.10   Organisation's social dimension

1.11   Understanding people

These eleven elements are taken from paragraph 2.2.1 and summarised in figures 2.3 and 2.4.

My questionnaire asked the auditors to rate them from 1 to 5, and also to rank the elements (1st – 11th). The results, which are sorted into ranked elements, are:

<div align="center">**Table 4.1**</div>

Electronic questionnaire feedback – ranked importance of the elements of behavioural auditing.		
		Average Opinion (1-5)
1.11 Understanding people	1st	(4.2)
1.4 Management	2nd	(3.9)
1.8 Relationship vis a vis information	3rd	(4.0)
1.5 Motivation	4th	(3.6)
1.3 Judging people	5th	(3.4)
1.1 Audit nose	6th	(3.7)
1.10 Organisation's social dimension	7th	(3.3)
1.2 Information/decisions	8th	(3.8)
1.7 Relationship vis a vis accounting	9th	(3.5)
1.6 Auditing motivations	10th	(3.4)
1.9 Reporting	11th	(3.5)

During the interviews, I asked the auditors to tell me, in order, those elements that they considered most important. Adding these results to those from table 4.1, I found:

<div align="center">**Table 4.2**</div>

Electronic and interview questionnaire feedback – ranked importance of the elements of behavioural auditing		
	Interviews	**Electronic**
1.11 **Understanding people**	1st	1st
1.1 **Audit nose**	2nd	6th
1.5 **Motivation**	3rd	4th
1.8 **Relationship vis a vis information**	4th	3rd
1.6 **Organisation's social dimension**	5th	7th
1.10 **Auditing motivations**	6th	10th
1.3 **Judging people**	7th	5th
1.4 **Management**	8th	2nd
1.2 **Information/decisions**	9th	8th
1.7 **Relationship vis a vis accounting**	10th	9th
1.9 **Reporting**	11th	11th

All these figures were also sub-analysed by the experience of the auditor - internal, consultancy or external audit, or combinations of those three disciplines - and the results are statistically analysed in detail in Appendix 2

From these findings, I came to the following conclusions:

4.4.1   Elements of behavioural auditing

The elements of behavioural auditing indicate that behavioural auditing is about *Understanding people*, *Motivation* and *Relations/information.* This applies to all three disciplines within the profession.

4.4.2   Key elements of behavioural auditing

Two potential elements were especially considered, that of A*udit nose* and of *Judging people.*

In the interviews, there was much subjective debate about *Audit nose*. Those that said they felt they understood what Audit nose is said that it was a key part of behavioural auditing. There was also a debate about *Judging people*, but interviewees said that they felt it to be "too subjective".

4.4.3   Elements that do not particularly relate to behavioural auditing

The elements of behavioural auditing indicate that behavioural auditing, and this applies to all three disciplines within the profession, is not about *Information decisions, Relationship vis a vis accounting,* or *Reporting.*

4.4.4   Analysis of elements of behavioural auditing

The figures for the electronic analysis of what the elements of behavioural auditing are split by experience were too low to gain statistical confidence from them. With one exception, the results from the interviews do not show any variation between the opinion of what the elements of behavioural auditing are, and I therefore conclude that all the elements of behavioural auditing are not experience-sensitive.

The one exception to this is that of "Reporting" [1.9]. It is considered by external auditors to be an element of behavioural auditing; this, perhaps, reflects the importance of external audit's formal reporting role. The answer is not, therefore, unexpected, it and supports the interviewing/analysis process that I carried out.

4.5   Have you had previous experience of behavioural auditing?

I did not pose this question in the electronic questionnaire, as, by chance, the pilot questionnaire which was a precursor, indicated that all the pilot respondents had heard of or had used behavioural auditing before. In the subjective feedback from the interviewees, a small number of internal auditors said it was new to them. This question was therefore posed as question 1 in the interviews.

Of those who admitted they had not heard of behavioural auditing before, three were internal auditors, four were external/consultant auditors and one had worked in all the professions. This feedback is expanded in chapter 5.

4.6   What is the definition of behavioural auditing?

In chapter 3, I concluded that there was no universally agreed definition of behavioural auditing and I therefore suggested three possible definitions (see p.62) with the objective of getting auditors to think about these definitions as a starting point; to develop them; modify them; create a totally new definition; explain the contents of what any definition should cover; etc. My three suggested definitions of behavioural auditing were that behavioural auditing is:

The human behaviour of staff, the quality of staff and their work. (Definition 3.1, see p 29 & 62)

The human behaviour of staff, the quality of staff and the work they undertake in order to meet the demands of the employer. Only appropriately trained staff carry it out, seeks to provide assurance to an employer that it is making the most effective use of its staff. (Definition 3.2, see pages 30 & 62)

The human behaviour of staff, the quality of staff and the work they undertake in order to meet the demands of the employer. It also examines whether it is possible to provide assurance that the employer provides the right processes to enable its staff to be as effective as possible. Only experienced auditors who have had appropriate training in assessing and dealing with human issues undertake it. (Definition 3.3, see pages 31 & 62)

Analysis of the results of question 3 of the electronic survey is given in appendix 2.4. In summary, and, defining 5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly disagree, then the average scores for the three suggested definitions were:

- 3.1 - average score of 3.6
- 3.2 - average score of 3.6
- 3.3 - average score of 3.9

Thus the electronic survey respondents preferred definition 3.3 but the results were not conclusive.

Analysis of the results of questions 4 and 5 of the interviews is given in appendices 2.4 and 2.5. Although not all those who were interviewed expressed a numeric interest, a tremendous amount of discussion was generated, and this is considered in detail in chapter 5. Of the 18 interviewees whose views included specific comments about 3.1, 3.2 and 3.3, those that preferred each definition were:

3.1	-	5 interviewees
3.2	-	5 interviewees
3.3	-	8 interviewees

The results from the electronic and interview based surveys agree with each other, namely that definition 3.3 is preferred, with 3.1 and 3.2 equal second.

I found that most interviewees could not provide a definition of behavioural auditing. Those definitions that were proffered were mainly in the form of comments, and these are discussed fully in chapter 5. However, I have presented some of those below. They have been summarised in the form of a definition, and they are grouped by the professional experience of the interviewee. The purpose of presenting a selection of these "suggested definitions" is to illustrate why I found no common perception about what behavioural auditing is, either by auditors within one discipline (either internal or external or consultancy auditing), or across these three disciplines.

Internal audit

- *"The analysis of behaviours through the audit process, to better understand and deliver a good audit".*

- *"To understand the way that people behave in order to be able to predict what they might do...It's as much an impact on them implementing a control or not as a process instruction is".*

- *"The review and analysis of the way in which people and processes work together, or not, to achieve, or not achieve, an organisation's objectives."*

- *"Understanding the people that you are auditing, and to be able to make your product match the individuals".*

Consultant Audit

- *"It ....encapsulates knowledge of people through experience. It has to be an ability to interpret your professional approach to auditing by applying it to your knowledge of the human condition".*

- *"It's the audit of relationships within an organisation, more than anything; the relationships and how things get done".*

External Audit

- *"The reactions I get from staff as I'm doing my work, both asking my questions and the attitude you get when you are in a firm doing my work".*

Internal/consultant audit

- *"The .... interaction between audit and the rest of the organisation and the individual auditor, and the individual in a particular department that is being audited".*

- *"Behavioural auditing is the term used to define the concept of recognising and reacting to auditee behaviour within the planning, conduct and reporting of audit work".*

- *"Behavioural auditing is also concerned with staff behaviour and therefore considers the efficiency and effectiveness of individuals in the operation of the system of internal control to manage risk to the achievement of an organisation's objectives. Behavioural auditing is not therefore a separate discipline but an integral part of internal auditing as a whole".*

- *"Behavioural auditing is the application of behavioural analysis in the audit context. Therefore it is the analysis of risk and control from the perspective of why and how do people take risk / respond to risk".*

- *"Behavioural auditing analyses the behaviours demonstrated by individual staff or staff groups and comparing this against the 'preferred behaviours' expected by the organisation or a predetermined benchmark. Differences from the expected norm provide the starting point for further investigation".*

- *"Behavioural auditing is a psychology issue and is related to the examination of how people behave in different situations. This goes beyond system based issues and tries to look at what really motivates / drives people".*

- *"Behavioural auditing is the intuitive identification of potential problems or issues through the subtle observation of behaviour in others or changes in auditee demeanour. In order to be effective it requires skills developed over time"*

Consultant/External Audit

- *"It is adding to your audit assurance (or not as the case may be), and that added experience is by virtue of the interactions you have with staff, but primarily for us, from the clients, and the clients' staff".*

Internal/Consultant/External Audit

- *"It's .... about behaviour of staff, quality of staff and their work, its stakeholders.... Experience and training people".*

Based on the analysis presented above, I conclude that:

- No common definitions of behavioural auditing were offered; indeed I submit that the very variety of suggested definitions proves the need to achieve a common agreed definition.

- A word count indicated that, in one third of all of the suggested definitions, one or more of the words "People", "Staff", "Behaviour" or "Organisation" was given as important to a future suggested definition of behavioural auditing.

- In addition to the above, it was noted that interviewees who worked in a company which had a telephone contact centre carried out audits of the behaviour of the contact centre staff. For example, the interviewees checked to see if call centre staff displayed behaviour that matched the message they were required to give. A specific example was if they were smiling when speaking on the phone to their customers.

These interviewees gave two definitions of behavioural auditing, one as above, the other the audit of the behaviour of staff with certain duties, and it is therefore concluded that consideration must be given to expanding any definition of behavioural auditing to encompass the audit of staff whose behavioural attitude is critical to the effectiveness of a company. This, too, is considered further in chapter 5.

4.7   Behavioural auditing and body language

I posed four questions to auditees to get a better understanding of what they felt about body language. I asked interviewees if they used the interpretation of body language in their work (question 10), what elements of body language that they paid attention to (question 11), whether the scope of an audit was altered as a result of their application of body language (question 12), and the amount and type of training they had received in understanding and interpreting body language (question 14). Question 14 was also posed on the electronic survey, as question 8b, but the electronic response rate to this question was negligible.

4.7.1   Results of feedback about body language

The detailed results to questions 10 and 11 are given in appendix 2.6. In summary:

Table 4.3

Do you assess an auditee's body language?

	Yes	*Unsure*	*No*
Internal audit experience	12	5	2
Consultancy audit experience	8	4	0
External audit experience	8	4	2
Total	**28**	**13**	**2**

Table 4.4

What elements do you consider when using body language?

	Eyes	*Arms*	*Face*	*Hands*	*Legs*	*Stance*	*2 or more elements*
Internal audit experience	11	2	2	0	1	3	3
Consultancy audit experience	5	0	3	0	0	0	1
External audit experience	4	0	1	1	0	0	2
Total	**20**	**2**	**6**	**1**	**1**	**3**	**6**

The analysis of the feedback revealed that:

- Of the 28 interviewees who expressed an opinion (with 43 combinations of audit experience between them), two said that they did not use body language, and seven said positively that they interpreted the body language of their auditees. Thus 7% of interviewees said that they did not use body language, and 25% said that they positively used it.

- The key element in body language observed by an auditor was an auditee's eyes. Poor eye contact, especially, caused suspicion.

- Only four interviewees (with six combinations of audit experience between them) said that it was important that two or more elements of body language should be considered if meaningful information about the auditee was to be sought. This indicates that more training in body language is required.

- I also noted that of the two interviewees who said that they used no element of behavioural auditing whatsoever, one recognised that he had no real knowledge of or training in behavioural auditing; the other interviewee thought that behavioural auditing was nonsense.

- In addition, and in Question 12, I gave the example of an auditor who met a line manager at the initiation of a planned audit in that manager's area or department of responsibility. I asked if the auditor would consider altering the previously planned scope of the subsequent audit in that area because of the impression gained of the line manager's body language by the auditor at that meeting. Detailed results are given in appendix 2.7, and these are summarised below.

Table 4.5

Has the scope of your planned audit altered?

	Yes	*Unsure*	*No*
Internal audit experience	6	9	2
Consultancy audit experience	3	2	1
External audit experience	4	1	2
Total	**13**	**12**	**5**

The results identified in this table are from the small number of interviewees who answered this question. Although these results imply that the scope would be altered if an initial interview with an auditee caused suspicion in the mind of the auditor, the details given by the interviewees are individualist, and are therefore considered more fully in chapter 5. Most interviewees said they would not alter the scope of the planned audit having considered the body language of the initial auditee.

However, I noted that auditors would alter the <u>way</u> they carried out the audit to focus on a slightly different set of audit questions to explore their concerns.

4.7.2 Training in the use of the assessment of an auditee's body language.

In Question 14 (to the interviewees) and question 8b (electronic questionnaire), I assessed the amount and type of training auditors had received in understanding and interpreting body language. Detailed results are given in appendix 2.8, and are summarised below.

Table 4.6

Have you had training in body language?

	Yes	*Some*	*No*
Internal audit experience	3	12	10
Consultancy audit experience	2	3	8
External audit experience	4	6	6
Total	**5**	**21**	**24**

This response implies that only 11% of interviewees had positively received training in the interpretation of body language, some had had a little, for example, as part of other management and interviewing skills courses, and 42% had no training at all

In addition, and from both feedback from the interviewees and an examination of the subjects of courses provided for auditors, I noted that there were no specific courses on "Body Language for Auditors" or similar.   This implies that there is scope for the provision and sale of auditor-oriented courses on the interpretation of body language.

4.8   Behavioural auditing and fraud identification

I asked interviewees whether the use of behavioural auditing had led them to suspect and subsequently identify fraud, question 13. These questions were also put in the electronic questionnaire (questions 7 and 8a) but, probably, because a written, as opposed to a yes/no answer was sought, the number of electronic replies was minimal.

The results are given in appendix 2.9 and are summarised below.

Table 4.7

Body language and the identification of fraud				
	Suspected fraud as a result of BA?		**If 'Yes' was fraud then found?**	
	No	*Yes*	*Yes*	*No*
Internal audit experience only	1	6	3	3
Consultancy audit experience only	0	1	1	0
External audit experience only	1	0	0	0
Internal and consultancy audit experience	0	2	3	1
Internal and external audit experience	0	1	1	0
Total	**2**	**10**	**8**	**4**

Twelve interviewees gave a specific answer to this question. Of those, ten said that as a result of the application of either "behavioural auditing", "using one's instincts", "using audit nose", etc, eight frauds were identified. In itself, I consider that this statistic indicates that there is a practical use in the auditing profession for the teaching and application of behavioural auditing.

Many of the interviewees said that, in their organisation, it was specifically outside the role of an auditor to be involved with fraud, actual or potential, and that their company had a dedicated fraud investigatory team.

I also noted that of the interviewees, 27% had a Celtic background - Irish, Scottish or Welsh. 87% of these interviewees said they used: "behavioural auditing", "one's instincts", "audit nose", etc, as a day-to-day part of their audit work. They all expressed surprise that they were being asked if they used "behavioural / instinctive / audit-nose" skills as they all took it for granted that it was part of their day-to-day audit tool-kit.

4.9 Other: Background and general

4.9.1 General findings

In this section I noted general findings, specifically, about how the perceptions of behavioural auditing vary between the different audit disciplines, and the respondents' usage of behavioural auditing.

I asked the interviewees, question 6, how the perceptions of behavioural auditing vary between the different types of auditor (or audit 'disciplines'): internal, consultancy and external. The answers identified that there were no common views held by one element of the auditing profession on the other two elements of the profession. This also applied to interviewees who had worked in two or three of the different professional elements. The answers given ranged from the "no difference", between the three professional elements, to totally wide differences of perception - quite often with a practitioner of one element thought that their work was better than the work of the other two. Specific answers by selected interviewees are given below by way of examples, and these are considered fully in chapter 5.

<u>Views of internal auditors</u>

"There's a greater turnaround of external auditors (than internal auditors).....so.... external auditors don't build the same trust as internal auditors".

"Internal auditors have the ... ability to sit down, talk to people, understand their body language, unlike external or consultant auditors."

"Internal auditors are a function of management so we have a different perspective on things."

"I think that the……….. prescriptive element [of external audit] will take out some of the human element [of auditing]".

<u>Views of consultant auditors</u>

"Behavioural auditing techniques help because [although] you can determine fairly quickly what the organisation is about from notes, reports, etc ... the audit nose can quickly tell you what it is really about."

<u>Views of external auditors</u>

"Internal auditing is more about the system than the end product."

"Consultant auditors are more relevant than internal auditors who are going to take a snap-shot in time."

"I'm not aware how internal auditors get their experience ...we have a different approach as we have Companies Acts and legislation to follow. We have a responsibility to not only the company but also to third parties."

"Understanding people ... is more important as an external auditor as you don't have the same time to build a relationship - so you have to understand people, get them on your side, and recognise their behaviours"

4.9.2 Answers to general questions

This section summarises the results of three of the background questions posed in the electronic survey about behavioural auditing: How often do you use it? (q4), What are the advantages (q5) and disadvantages (q6) of using it?, as well as one of the background questions put to the interviewees: Do you use it? (q7). Details of these results are given in appendices 2.10 to 2.12.

In summary, I found, on average, that the respondents considered the advantages of carrying out behavioural auditing (44.4% say agree or strongly agree) are greater than the disadvantages (13.1% say disagree or strongly disagree).

However, I did note that there is a large balance of respondents (42.5%) who are neutral. I also found that respondents identified the greatest benefit that behavioural auditing provides is that it makes the audit work more efficient, with the least benefit in making it more business-like.

Table 4.8

Further analyses of electronic feedback on the disadvantages of behavioural auditing.

Electronic question 6 - Disadvantages of BA?	**Number of replies**		
	Agree	**Neutral**	**Disagree**
1) Not really come across it before	11	10	11
2) The benefits are not quantifiable	17	7	8
3) It doesn't fit with a normal audit style (of work)	7	8	17
4) There is little understanding about it	16	6	10
5) You have had no training in its use			
6) It is pseudo-scientific waffle	2	10	20
7) Bosses/auditees would not accept it	13	8	11
Significant variations are highlighted			

From this feedback I note that the more significant disadvantages of behavioural auditing is that the benefits may not be quantifiable, recipients may not accept it, and there is little understanding of, or training in, it. It therefore follows that training in its use is considered advantageous.

4.10   Summary and conclusion

4.10.1 The "What is behavioural auditing" questions

Behavioural auditing is about Understanding People, Motivation and Relationship/ Information. It is also about Audit Nose, but the term 'Audit Nose' had to be defined. It may or may not include Judging People. Behavioural auditing is not about Information Decisions, Relationships vis a vis Accounting, or Reporting.

There is no common definition of behavioural auditing, nor one that could be agreed by the interviewees. Any potential definition should include the words People and/or Staff and/or Behaviour and/or Organisation. In addition, behavioural auditing can also mean the auditing of staff behaviour when the behaviour of those staff is key to their work, for example, in a call centre.

I found that behavioural auditing is not a specialism in its own right; it is one of the techniques in an auditor's tool box of techniques.

4.10.2 The "Practical use of body language" questions

7% of those interviewed said they did not use body language as part of behavioural auditing and 25% said they positively used it. For those auditors that used the assessment of an auditee's body language to assist their work, they considered that the key element was the observation of the auditee's eyes. Poor eye contact caused suspicion.

It is noted that only four interviewees said that it was important that two or more elements of body language should be considered. This indicates that auditors who use the interpretation of body language as a tool require more training in body language. Indeed, 89% of interviewees had not positively received training in the interpretation of body language.

Of those auditors whose interpretation of body language caused them to suspect that the auditee was guilty of fraud, a subsequent investigation proved that, in a high percentage of cases, their suspicions were correct.

4.10.3 The "Background and general" questions

44% of interviewees said that, on balance, there were advantages in carrying out behavioural auditing, 43% were neutral, and 13% said there were disadvantages. The greatest benefit that behavioural auditing provides is that it makes the audit more efficient; the least benefit is that it makes the audit less business-like. However, in order to counter-act these perceived disadvantages of behavioural auditing, more training is considered advantageous.

4.10.4 Overall conclusion

The overall quantitatively-based conclusion is that behavioural auditing can be defined and that its use, including the assessment of an auditee's body language, is potentially beneficial, but that training is required. Chapter 5 assesses the qualitative feedback received from the interviewees, and uses that qualitative input to build on the quantitative results from this chapter.

Chapter 5   <u>Behavioural auditing survey - qualitative analysis</u>

5.1   Introduction.

In order to understand what behavioural auditing really is, I researched a large number of textbooks and other printed work to find if there were one or more definitions of behavioural auditing. It quickly became apparent that no universal definition existed, but that behavioural auditing was all to do with either the theoretical soft skills of auditing, or with those soft skills used in practice.

This lack of definition applied both to research and textbooks which, typically, concentrated on external auditing or internal auditing, but not audit work by audit consultants.

In order to propose a single and definitive definition of behavioural auditing, I considered four sources of information in detail:

- I itemised all the elements of behavioural auditing provided by textbooks and then sought opinions from auditors as to whether they considered these elements to accord with their understanding of behavioural auditing, see paragraph 5.2

- I 'set the ball rolling' by postulating three possible definitions of behavioural auditing and obtaining feedback on those possible definitions from auditors, see paragraph 5.3

- I asked for definitions from auditors, see paragraph 5.4

- I then asked if behavioural auditing is a standalone and generally applicable audit technique, see paragraph 5.5.

This process was undertaken by both electronic (quantitative) and interview (qualitative) surveys. Surveys were sent not only to internal and external auditors but also to audit consultants. I then carried out a data analysis on the result - see chapter 4 - and this led me to initial conclusions about "What is behavioural auditing" – see paragraph 4.10.

I then combined the results from the data analysis together with the detailed consideration of the elements, the suggested definitions, the proffered definitions, and the feedback about standalone and/or technique. From these I have been able to recommend a definitive definition of behavioural auditing, see paragraph 5.6.

Further, I argue that the interpretation of body language can be used by an auditor to observe staff behaviours and changes of behaviour. Certainly, audit text books suggest that auditors should observe an auditee's body language as part of their audit work, but these text books do not usually say why, and if they say how, there is minimal detail.

I argue that the realms of body language and behavioural auditing intersect. As body language is a 'soft audit skill' it is both convenient and appropriate to examine body language as part of the scope of behavioural auditing.

In paragraph 5.7, I look at what knowledge and skills of body language were possessed by the auditors I interviewed, and at what specific training in body language they had received, if any. I also examined if a planned audit was altered by input received by the interpretation of body language.

In paragraph 5.8, I examine if the input received by the interpretation of body language caused an interviewee potentially to identify fraud.

The results from the data analysis in chapter 4, which are summarised in the "practical use" conclusions in paragraph 4.10, are also used in paragraphs 5.7 and 5.8.

Finally, I have briefly summarised the whole chapter and its key conclusion in paragraph 5.9.

5.2   What are the elements of behavioural auditing?

In chapter 2, I identified eleven potential elements of behavioural auditing;

1.1   Audit nose
1.2   Information/decisions
1.3   Judging people
1.4   Management
1.5   Motivation
1.6   Auditing motivations
1.7   Relationship vis a vis accounting
1.8   Relationship vis a vis information
1.9   Reporting
1.10   Organisation's social dimension
1.11   Understanding people

For further details, please see paragraph 2.2.1, and Table 2.3, page 27.

In Chapter 4 (and summarised in paragraph 4.10) the quantitative analysis concluded that:

- Behavioural auditing is about *Understanding People, Motivation* and *Relationship/ Information*. It is also about *Audit Nose*, but the term 'Audit Nose' had to be defined. It may or may not include *Judging People*. Conversely, behavioural auditing is not about *Information Decisions, Relationships vis a vis Accounting,* or *Reporting*.

- There were no opinions expressed about behavioural auditing being about an organisation's social dimension or the management of a company

- Behavioural auditing can also mean the auditing of staff behaviour when those staff work, for example, in a call centre, and finally,

- Behavioural auditing is not a specialism in its own right – it is one of the techniques in an auditor's tool box of techniques.

These conclusions are shared by all the disciplines of the audit profession (chapter 4, paragraph 4.4.4).

5.2.1 A key element of behavioural auditing is understanding people

None of the interviewees said that understanding people was irrelevant to an audit and many of the interviewees emphasised that this skill was essential. For example, they said that:

- *"**Understanding** people is important – making sure they are working efficiently and smartly."*

- *"I think in order to conduct an audit, being able to **understand** people and how they behave, their motivations, is absolutely key to being able to get the best out of that relationship with them. Being able to see their side of the storey, building that rapport and that relationship with people, with the auditees, is absolutely essential for an effective audit. Though I must admit that I still don't see that as behavioural auditing, to me it's **understanding** behaviour. I do struggle with this whole behavioural auditing concept".*

- *"**The style you have to approach somebody can make them respond much, much better – so for that for me, **understanding** people, is really important".*

- *"I think motivation is a big thing with behavioural auditing, and about **understanding** ..... I would say that **understanding** people is a huge thing in behavioural auditing".*

- *"The one for me [is] **understanding** people. The **understanding** the behaviour of people ... etc. I think that goes to the fact that there is a human element of any control that always operates. And for me it's about that **understanding** – so it's not just about the technical control that's in place, it's about the people that operate that and they're all human beings, so it's the inter-reactions. So out of everything perhaps, that for me was probably the closest to it [Behavioural auditing (BA)]".*

- *"I suppose the one that's closest to my own way of thinking is **understanding** people. Behavioural auditing has got one of those connotations, which is 'are you auditing people's behaviour as well'. Well, no. I think that in order to provide assurance of risk you need to be able to understand or predict what someone may do in a given situation. And in order to **understand** what they might do in a given situation you need to understand them as an individual in the context of their job, in the context of the particular organisation's sector and economic environment in which they operate. So, I guess that **understanding** people is the closest that I get".*

From this feedback, I conclude that an auditor may chose to ignore the factual analysis that he/she will carry out on the results of fact-finding. The auditor will have felt that it is relevant and/or valuable to go behind that analysis to gain more knowledge of why certain processes are carried out. To do this, the auditor may consider that the best approach is to understand better what an auditee does – *"to see their side of the story"*, and to understand why they do it - *"the human element of control always operates"*. Because the process of getting understanding cannot necessarily be quantified, the interviewees were classifying

understanding as a requisite "soft skill" for their work, and thus, for them, *understanding people* was synonymous with behavioural auditing.

Given this feedback, a key element of behavioural auditing is certainly the process of understanding people.

5.2.2 Key elements of behavioural auditing and motivation and relationship vis a vis information.

The interviewees gave little comment as to why these potential elements were part of behavioural auditing but the interviewees certainly considered Motivation and Relationships/Information to be elements of behavioural auditing. The following were noted:

- *The audit **of motivations** – what is their [the auditee's] underlying **motivations** in preparing their accounts".*

- *"**Motivation** can be an interesting area but it can also be a millstone. I've seen lots of aspects of this one. If you can figure out what an organisation's **motivation** and what an individual's **motivation** [is], all well and good, but sometimes you can overdo it and you can almost invent **motivational** reasons why people are doing something when it's got nothing to do with things. If you can identify what the **motivations** are for driving something, I think that it's a good skill to have".*

- *"I think **motivation** is something that I quite like to pursue – I think that's important in any environment, especially a team environment. Reporting I think is important as long as it's meaningful, accurate and usable – I think that the reporting side is key, however that's translated".*

- *"The way I've ranked it the things I've put in are audit nose – I think face to face you get a real reaction from people as opposed to over the phone. **Motivation** is another one I picked out in terms of development of strategies to influence behaviours – so what actually drives that behaviour".*

- *"I think in order to conduct an audit, being able to understand people and how they behave, their **motivations,** is absolutely key to being able to get the best out of that relationship with them".*

- *"I thought that Audit Nose and **Relationships/Information** were the first areas that came to mind."*

- *"... the other one [element] that I picked out was around **relationships and information.** Again, concerned with human behaviour and relationships with design and construction – around **information** systems. Again, **information** systems is an interesting one in that in most organisations, the informal ones [ie, **Relationship and Information**] are the ones that work better".*

For me, and unlike the interviewee's replies concerning *understanding,* these responses indicate a divergence which, in this case, is about the importance of considering an auditee's motivation and also relationships.

External auditor interviewees believed that they should understand whether the auditee wanted, for example, the company accounts to show a large profit (ie, company doing well) or a poor profit (ie, minimising potential tax payable by the company). This view was also reflected by an internal auditor who placed emphasis on achieving company goals.

A further view was that if staff are *motivated*, then they will work more effectively.

A further view again is that if auditors can understand what *motivates* an auditee, and the *information/relationship systems* which that auditee works within, then they will be able to carry out their audit more efficiently.

Given this feedback, an element of behavioural auditing is certainly the process of *understanding people's motivations* and the structure (ie, *relationships and information)* in which they work.

5.2.3   Auditor's nose

Before commencing this research, one of my precepts was that behavioural auditing was all about the auditor's nose. This was a term that, as a practising auditor, I used frequently. However, it would appear that not only have many auditors not heard of that term, but also there is no agreed definition of what it means. I consider it to do with being able to sense, whether intuitively or subconsciously, and possibly based on many years of auditing experience, if an auditee is being economical with the truth. Googling the phrase 'a policeman's nose' also gives different suggestions, eg: 'This is an intuitive ability by some policemen to detect malice or other emotion in individuals within a group of suspects'. Feedback on the audit nose was mixed.

Those interviewees that did not consider audit nose to be relevant said that:

- *"I have had one or two courses on BA, and I do know things such as motivation, reporting (obviously), decisions. I haven't come across **audit nose**."*

- *"You gain [knowledge of BA] more from experience ....the pure **audit nose** side of it is not that relevant"*

However, other interviewees commented that:

- *"I think that the **audit nose** – the whites of the eyes – is the key [element of BA]".*

- *"For me [BA is] the **audit nose** and judging people".*

- *"I particularly like the **audit nose**, and the 'whites of the eyes' test is worth hundreds of words in the audit programme".*

- *"[BA is a] wee bit of all [the elements] you listed, but it's almost **audit nose**. This one that best describes it, because it takes on board more than just the information that is presented to you [by auditees]"*

- *"I love the phrase **audit nose**. I think that that is something that comes along with experience –that you can't find in textbooks.... I always tell people to follow their **audit nose.**"*

- *"Personally, and from doing auditing for a year, [BA is] this **audit nose**.... you generally react to the way the auditee behaves".*

- *"I think that [an **audit nose**] is developed over time as an auditor. I mean, who knows whether you have a nose – I think it's something that I've felt I have - over time and with confidence with things coming to fruition".*

I have always considered audit nose to be an essential part of the audit process; if auditors do not apply their knowledge and intuition in an audit situation, they could well miss significant audit findings, or not appreciate the significance of their findings. Through experience, I instinctively believe that good auditors use their auditor's nose. From those interviews I therefore infer that audit nose is little other than jargon or euphemism for behavioural auditing.

5.2.4 Behavioural auditing and information/decisions, relationships vis a vis accounting and reporting

Information/Decisions, Relationships vis a vis Accounting and *Reporting* were identified in the data analysis, paragraph. 4.4.3, as elements that are certainly not to be considered elements of behavioural auditing, but the interviewees gave little comment as to why they excluded them. Therefore, these elements are probably not to be included as part of a definitive definition of behavioural auditing.

5.2.5 Judging people

This is a potentially controversial element of behavioural auditing for the reasons that were given by the interviewees. Two clear camps emerged: those that considered judging people an essential element of behavioural auditing, and those that held the opposite view.

The interviewees who considered judging people to be an element of behavioural auditing said:

- *"For me it's the audit nose and **judging people**. I find very much that when I'm working one to one with people, with auditees, I am looking behind what they are saying all the time in relation to both the way they're inter-reacting with me physically and also just in terms of tone and content and language in relation to their words. So I very much have a question always in the back of my mind and it's not being cynical or being a sceptic, but I say to myself 'Do I really believe this person in terms of where I'm going, in terms of the conversation'. And as I say, it's not being negative, it's just a warning bell in terms of my own head. So that's the type of direction I go in".*

- *"So I think **judging people** in the sense that the way they best react to your style. I don't mean **judging** them as in making a conclusion. The style you have to approach somebody can make them respond much, much better – so for that for me, understanding people, is really important".*

- *"I think **judging people** is something that one does when one's auditing inevitably. It's not something that's built significantly into the audit – it's the written audit work that we do".*

Those that were against the element of judging people said:

- *"I think we are into more tricky ground ... as ...we are paid to come up with opinions and **judgements** and we have this difficult line about **judging** and forming an opinions on environments and processes, not on individuals. So whilst there is an element of 'I know from my experience that...', there are certain people [that I've] seen in my audit career where I know a particular individual and I know that*

*everything I find will be rubbish because that individual has no concept of control. There is an element of **judging** and knowing that person. .... It is a bit about behavioural side.... Whilst I think that there is an element of **judging,** and there is definitely opinions, it's very difficult when it comes to the personal [aspect] for assessment and blatantly putting something in reports".*

- *"**Judging** people seems one [an element] which doesn't necessarily seem that positive to me – making judgements is essential but **judging people** (understanding how they function, yes, perhaps) doesn't stack up".*

- *"**Judging** people which by its very nature I think that's by its very nature just something that as an auditor we should not be doing."*

- *"**Judging** people has a lot to do with it but I'm not sure that it should, if that makes sense. The **judging** of people can be too quick.".*

I would argue that judging people is something one does automatically. Indeed, a partner of a chartered accountancy company who I interviewed said that it is his legal duty to put his judgement or opinions of the audit into the final company report. The question is whether to allow judgement of an individual to be brought into the audit process, or whether to swap any, perhaps inevitable, judgmental views of an auditor with well researched, statistically undertaken, substantive testing. My experience is that, in practice, if time is limited, judgement is often/inevitably used by the auditor to select his sample size and sample work-area as best he can. (See also paragraph 2.4.1, page 49).

Some interviewees have said that judgement is so fundamental to all audits that it should not be considered a part or sub-set of behavioural auditing.

Personally, I consider that all auditors use judgement in assessing the auditees they meet; that judgement will indicate to them if that auditor is efficient and/or effective at their work or not, and whether they feel they need to examine the work that that auditee carries out more closely. As such, it must be an aid to solid audit analysis.

Judgement also implies some form of legal 'guilty' or 'not guilty'. A magistrate observes a defendant as soon as they come into court, and then listens very hard to, and examines all the evidence produced by, both the prosecution and defence advocates. The magistrate then judges on the basis of beyond reasonable doubt (criminal) or on the balance of probabilities (civil). I argue that if the auditor judges guilty, then unlike a magistrate, if the judgement materially affects the subsequent audit, the auditor has a duty to examine

further the books/processes to see if a problem exists or not. Magistrates are given training and much practice in this process of applying their judgement – I argue that auditors should have the same.

However, from the feedback that I obtained, I observe that:

- judging people may or may not be an element of behavioural auditing, though as it is a soft skill it is often assumed to be an element
- it may or may not be a good thing
- it should or should not be used.

And from this I conclude that it unwise to include the words 'Judging people' as part of a definite definition of behavioural auditing.

5.3   What is a possible definition of behavioural auditing?

The objective of this section is to identify if a specific definition or definitions of behavioural auditing exists. In order to do this:

- I 'set the ball rolling' by postulating three possible definitions of behavioural auditing (as initially proposed in chapter 2, paragraph 2.2.1, propositions A, B and C):

  - (Definition 3.1) *The human behaviour of staff, the quality of staff and their work.*

  - (Definition 3.2) *The human behaviour of staff, the quality of staff and the work they undertake in order to meet the demands of the employer. Only appropriately trained staff carry it out, seeks to provide assurance to an employer that it is making the most effective use of its staff.*

  - (Definition 3.3) *The human behaviour of staff, the quality of staff and the work they undertake in order to meet the demands of the employer. It also examines whether it is possible to provide assurance that the employer provides the right processes to enable its staff to be as effective as possible. Only experienced auditors who have had appropriate training in assessing and dealing with human issues undertake it.*

- I obtained feedback on those possible definitions from the interviewees
- I asked the interviewees to propose their definitions
- I noted conclusions from chapter 4:

- Definition 3.3 was the most popular

- No common definitions of behavioural auditing were offered – which also indicated the need for a common definition to be adopted/accepted

- Feedback indicated that any recommended definition should include the words *People* and/or *Staff* and/or *Behaviour* and/or *Organisation*

- Behavioural auditing can also mean the auditing of staff behaviour when those staff work, for example, in a call centre

- Behavioural auditing is not a specialism in its own right – it is one of the techniques in an auditor's tool box of techniques.

5.3.1 Definition 3.1

The reasons interviewees appeared to like the suggested definition 3.1 include:

- *"I would veer towards the 3.1, the less rather than more".*

- *"I would pretty well do it as 3.1, just being brief".*

- *"Probably 3.1 does [but]…3.3 is quite a good all-encompassing thing".*

- *"Probably the first one, 3.1. The main driver for that is that it's not too prescriptive. Reading through 3.2 and 3.3 they are a bit too narrow really. 3.1 adds for me a little more scope for flexibility. I'm not sure that behavioral auditing is something that you could put in a box".*

- *"I don't think it's 3.2, I don't think it's 3.3, I only think it's 3.1 because it's vaguer".*

I conclude that suggested definition 3.1 was preferred was because it was brief and/or non-prescriptive.

5.3.2 Definition 3.2

The reasons interviewees appeared to prefer the suggested definition 3.2 include:

- *"I'm not sure about meeting the demands of the employer given in 3.2. Obviously you have to do that, but I think the way that that is expressed makes it sound as if the auditor's only doing behavioural auditing when they are meeting the demands of the employer. So it may need some reference to 'stakeholders', I think, as a substitute for 'employer'".*

- *"The one that appealed most was 3.2. The reason behind that is that I like that it seeks to provide assurance to an employer that it's making the most effective use of its staff. I didn't like 3.3 in respect of it continued on making sure that this is the right processes to enable its staff to be as effective as*

possible, because, from my experience, staff change round quite regularly and one couldn't then go about changing the process each time".

I conclude that the reasons that 3.2 appeared to have been preferred were because it involves the employer. However, this was noticeably challenged by external auditor interviewees who, although they liked 3.2, identified that it was not the employer but their stakeholders who were key, and though that, if I adopted 3.2, then this definition would need to change to encompass that point.

5.3.3   Definition 3.1 and 3.2

The reasons interviewees appeared to prefer the first two suggested definitions, but not the third, include:

- *"I would agree actually with all of them because they are expanding from one to the next. I think from the basic level I think that 3.1 is the key one really… but when you go to 3.2, it's the way the employer treats their staff and whether they're giving them the right training and that side of it.*
  Looking from a full organisation rather than an individual member of staff, looking at the overall picture. So I would agree with both 3.1 and 3.2.

  I wouldn't necessarily entirely agree with 3.3 because I'm sure that there are other people who can easily assess the situation – I don't believe that it's purely auditors who can…….. However, we are in a position to do it, and a lot of other people – a manager works within an environment and wouldn't necessarily think of the behavioural auditing side of things when assessing their team; what's possibly working and what isn't – whereas auditors come in with a fresh perspective on it and therefore being able to look at it in a totally different light, that's probably what gives you an advantage. Both the independence and a fresh perspective".

- *"I wouldn't agree with the last one 3.3, because although it might help to have appropriate training to deal with human issues, I think that you could have the best trained person in the world but you might not be able to beat someone else's intuition".*

- *"The closest I felt was 3.2. The reason why was that 3.3 I felt mentioned only experienced auditors who have appropriate training should undertake. And I felt that was too limiting. And 3.1 I felt was too short".*

Although various interviewees liked both 3.1 and 3.2 for the reasons given above, I felt that these views were an expression of dislike against 3.3. This was because 3.3 was too long and it suggested that training/experience is important.

I do accept that 3.3 is long – any suggested definition of 67 words is a mouthful. A concise definition would be better!

However, I disagree with the concept that training and/or experience is not required to carry out the elements of the process referred to in the textbooks as behavioural auditing. It is obvious from the data analysis that many people are unsure of what behavioural auditing may encompass. From a comparison of research of what 'body language for auditors' encompasses (see also chapter 2, paragraph 2.4.2, propositions P and Q), and what interviewees thought it encompassed (see chapter 4), that more training is needed. The challenge will be to find an acceptable form of words in a definitive recommended definition.

5.3.4   Definition 3.3

The reasons interviewees appeared to prefer the suggested definition 3.3 is that they include certain phrases:

'Training provided to the auditor. The experience of the auditor'

- *"I think I quite like 3.3 as being something I can relate to. The employer providing the right processes to enable the right tools and processes – training, etc, keeping your team up-to-date".*

- *"Yes, I think 3.3. I think it's right to say that only experienced auditors with appropriate training can be relied upon to do it with any great effect – I think there are techniques that behavioural auditing [uses]".*

- *"I would go for the third one [3.3] because I like the final sentence because it recognises the need to build on experience".*

- *"I suppose that 3.3 comes closest for me – 'only experienced auditors who have had appropriate training in assessing and dealing with human issues'. I would imagine, and I haven't gone through this process myself, but if you undertake your internal audit examinations and you are trained to be a professional auditor, there has to be a large help-need of behavioural analysis, understanding how people work together and knowing how to direct".*

- *"The way you do your audits through your own behaviours as much as anyone else's. I've not gone through that process so for me 3.3 would probably be more befitting than any others".*

- *[I prefer] "3.3 as it talks about the experienced auditors ..... and only that people that do that and are experienced in those types of conversations   ..... can pick up those types of signals. Because we take some things for granted, don't we, because of our life experiences, and we're used to dealing with the people and the problems that might signal that there's something peculiar, whereas some people might not be used to that. Picking up the signals.*
This is [also] all about professional scepticism – it's almost questioning, not just taking it at face value. And that terms of behavioural auditing because every time you're questioning, and you're not taking it as read – you're having this scepticism".

These views contradict those given by interviewees who preferred definitions 3.1 and/or 3.2 as they strongly suggest that building on experience is important. Certainly, in my opinion, when I first started audit work soon after university, I depended on the likes of ICQs and textbook references to be able to ask the correct questions of auditees. I had no audit nose, and if an auditee was not telling me the truth, I only suspected this through thorough testing. For me, the effective use of soft audit skills and the application of behavioural auditing only came through experience. I do argue that the use of audit nose does not reduce the need to carry out thorough testing, but it is an aid in the selection of those areas where testing may prove fruitful.

'Human behaviour of staff'

- *"I do not have a specific definition. I would say that, certainly the first line of 3.3 - the human behaviour of staff, and the quality of those staff, but their ability to communicate with others and not just in written or oral means".*

- *"If you want it [a definition] in very basic form I would say 3.1. But with 3.3 it gives more of a definitive in the fact that the employer should be fully aware of how its staff behaves and should make the best of it".*

- *"If any, it would be the third, 3.3. It explains a bit more in detail as to what it means when it says the human behaviour of staff, but it goes on to give that assurance that the employer provides [the right processes], but it also goes on to make the point that you can only deal with human issues if you have actually been trained, and that anyone who tries to look at the human behaviour of staff is not going to produce much if they haven't had any training in how you deal with the human behaviour of staff".*

This feedback notes that for some interviewees, behavioural auditing includes an understanding of the human behaviour of staff. Although I included the word 'human' in this suggested definition, on reflection, it is tautological, and can be shortened to the 'behaviour of staff', which, for me, is one of the essences of behavioural auditing.

'This definition 'feels right''

- *"3.3 to me would be my closest understanding, and it certainly fits, in my mind, the example I gave of what I understand of behavioural auditing where you were going to go and audit people's behaviour to see if that was meeting the demands of their work. I think that call centre example works very well in that respect, because that…. in the audit of perhaps anything in the service concept where you expect people to behave in a certain way that may not be how they would behave all the time, so you expect your customer representatives or your salesmen to approach clients in a certain way. A classic example is mystery-shopping exercises where you're particularly looking at behaviour. So I would say that 3.3 would fit my understanding of what I would think of behavioural auditing best".*

When I drafted 3.3, it felt right to me. But given all the feedback, and time to re-consider that suggested definition, I can do better.

5.3.5 A definition other than 3.1, 3.2 or 3.3

The reasons interviewees appeared to like none of my suggested definitions were lengthy!
I have grouped then into four categories and have commented at the end of each of these
four sub-groups:

'The quality of the actual wording'

- *"Should these definitions each start with ... 'It is the analysis of ...'? I think it has validity as a scientific approach as long as you don't see it as a pure science – it's as much as an art as it is a science. It doesn't mean it can't be not scored exactly, but at least analysed. It can't be quantified but you can analyse it, you can look at things and think that you can do it better next time. If you can do, that it's not hard to picture it as a drawing that you can draw better next time, it's the way that you behaved in an interview that you can improve upon. Therefore it might be an art but it's certainly something that you can measure".*

I accept this point – a definition does need to include a verb. Must do better!

5.3.6   Other considerations

'Areas that also need to be included'

- **Risk.** *"The only thing I would say that in any definition, there's no mention of the word risk. And as an auditor I live and breathe risk. So, I mean, when you say that auditing meets the demand of their employer, yes, in order to meet the demands of their employer by providing assurance of the management of risk I think is something that the definition could be expanded to include. I mean it's explicit in it but nevertheless it could be a little more explicit".*

- **A combination.** *"It's a combination actually. Some of it will be how confident they are in answering your question, sometimes being overconfident, Some of it's physical reactions – certainly note that as an external auditor, a lot of people are very scared of you. Whether that's because they've done something wrong or its reputation... they feel that every transaction they have done is being looked into. So I think it's just a combination. It's experience more than anything else".*

- **Reaction or Interaction**

  - *"It is the interaction between audit and the rest of the organisation and the individual auditor, and the individual in a particular department that is being audited, so that interaction is crucial for the success, both from the point of view of audit, and also from the point of view of the recipient that of they're going to get the best out of it as well. So for it to be a successful, you have to have the marrying of minds which the interaction brings about. I'm always slightly doubtful about using terms like 'the human behaviour'" .*

  - *"It probably wouldn't be too far away from 3.1 in terms that I do believe it is about the human behaviour, staff, but also I might put in something about the inter-reaction of auditors as well. Need to be open to the fact that there are human elements to any control framework. Nothing too prescriptive".*

- *"It [behavioural auditing] is adding to your audit assurance (or not as the case may be), and that added experience is by virtue of the interactions you have with staff, but primarily for us, from the clients, and the client's staff".*

- *"To me it's probably the reactions I get from staff as I'm doing my work, both asking my questions and the attitude you get when you are in a firm doing my work".*

- **Understanding the people** *that you're auditing, and to be able to make your product match the individuals ...".*

- **People, process and controls.** *"People and processes. And on that you've obviously got the control and looking at the objectives and their controls. It's looking at the way people achieve or don't achieve their work to meet the objectives".*

- **Intuition.** *"There is an element of intuition. I think it's something that good auditors are born [with], you can train reasonable auditors, but it's a bit like leaders of men great leaders – Alexander the Great – just was. You can take some idiots and you'll never make them a good leader. So there's an element there that to some degree you're born to it, you have the skills, and so for me, those skills are about leadership, and some are about intuition. Because that's [ie, intuition] a great part of leadership".*

I certainly accept the first five bullets: *Risk, Combination, Re/Inter-action, Understanding and People/Process/Controls* though I would perhaps avoid risk as it is a generic for all types of audit. All these should be considered for inclusion into a suggested definition, but the difficulty is to avoid expanding an otherwise concise definition which could make it so long that it is unworkable.

I very much support the application of *intuition* and it is something that, as an auditor, I use considerably. I think this may also be classified as observation of behaviour and interpretation of the same, and this reflects the need to gain experience of soft auditing, as noted above.

'Problems with these suggested definitions per se'

- *"3.1, I think, is too narrow. Because you can have high quality staff that don't deliver. 3.2 it's talking about only appropriately trained staff that carry it out, I don't like that constraint. I'm not saying that people shouldn't be appropriately trained, but I think that there could be an awful lot hung on that label".*

- *"I think 3.1 is more of what we do in every audit, the human dimensions, 3.2 depends on whether you are talking about behavioural auditing as a separate specialisation when my prime tool is the behavioural bit…….…and if you are talking purely about the behavioural but then you're talking about 3.3. I think the bit 3.2 is part of any audit……………You would only expect properly trained people as anything that's commenting about personal, sensitive dimensions about people then you must have the skills to do that……………… Making the effective use of its staff would apply to any audit".*

- *"I find it's interesting that behavioural auditing talks about human behaviours of staff. I suppose that I would have interpreted behavioural auditing as the interaction of staff and clients. And therefore that's what it's about in the staff being able to detect signals from clients and therefore use those towards the*

work that they are doing. Here it talks a lot about meeting the demands from their employer [3.2 and 3.3], which doesn't seem to fit with what we were talking about".

- *"3.1 is just a bit vague. [In 3.3] I'm not sure how much experience and appropriate training you have to have necessarily, in any of your auditing. I think that is bordering onto the bounds of psychology. And maybe you need to have a psychology background to understand it".*

These comments help give further pointers to how a definitive definition of behavioural auditing can be drafted.

'A problem with behavioural auditing per se'

- *"I don't understand any of it .... because auditing is a process. None of these suggested definitions seems to me have any process. They have an element of the subject of the audit, Human Behaviour, so they maybe .., but I don't see what we are auditing.*

  Look at 3.1 That is not auditing. There is nothing auditing about that - that is not a definition. What behavioural auditing might be is the review, the independent review of human behaviour and staff, etc, with reference to some frame of reference.

  Ultimately, everything we audit is as result of some human behaviour. In that context, that concept of behaviour is too woolly and vague and imprecise.

  At one level I can say that everything that I do is as a result of human behaviour because if you break down audit to the two classical things which is:
- *having a system of risk management and control, a process, and is it a well designed process, and*
- *is there compliance with that process.*

  The first one is about quality of human behaviour in designing the process, and the second one is about the human behaviour of complying with that process. So I always do behavioural auditing if defined as such.

  In a very clinical sense, all of those could be definitions of behavioural auditing. Whether or not that is a type of behavioural auditing is questionable. For me, it's a means to an end. In itself you need to understand people, in order to understand what they do and how they might react in a given situation. So you can predict action and maybe then guide an action. But to provide an assurance that an organisation is managing the behaviour of its staff in some way is, I think, a means without an end.

  From the auditor's perspective (what is behavioural auditing?) or the auditee's perspective? Different people have different expectations to come out of this.

  For me, behavioural auditing would be providing honest assurance, and not allowing that assurance to be coloured in any way by unnecessary emotions that can sometimes get in the way of the audit process, either because the people that you are dealing with you don't get on with them or you find that they're awkward to deal with in some way, and as a result of the audit process you actually come out with assurance that is factual, very straightforward, and you have used the behaviours in the process to make sure that you have found your way round those obstacles.

  My initial thought would be to try to understand why we do what we do. So it would be looking at the motivations behind things. That would then give the example of fraudulent behaviour so looking at why people make mistakes if there is a clear process, is it a mistake or is it an irregular activity that they do. That's because of some behavioural trait that they've got".

This point is noted. However, I disagree and, given the feedback quantified in chapter 4, it is clear that a large number of auditors use behavioural auditing.

5.4 Interviewee definitions of behavioural auditing

The feedback from interviewees given in paragraph 5.3 resulted from my suggested definitions. It produced extensive comments on the elements of what a definition should be or should include.

However, although all the auditors who received the electronic questionnaire or who took part in the interviews were asked for their definition of behavioural auditing, only eight specific definitions were provided. A further four contacts of one of the interviewees were also asked, or perhaps instructed, to provide definitions. The reason given by the non-replying interviewees was that 'it is too difficult to define', or 'I'll have to think about that', but with no outcome.

The twelve suggested definitions are given below. After each definition I have added a word count. The average is 27 words, compared to the 12, 48 and 67 words of 3.1, 3.2 and 3.3 respectively. This, again, implies that any definition should certainly be more concise than 3.3.

- *'Using / having an understanding of human behaviour to assist you in the formation of judgements in the auditing that you do'. [21 words]*

- *'The auditing of behaviour or the behaviours that are required'. [10 words]*

- *'An ability to interpret your professional approach to auditing by applying it to your knowledge of the human condition'. [19 words]*

- *'The review and analysis of the way in which people and processes work together, or not, to achieve, or not achieve, an organisation's objectives'. [24 words]*

- *'Behavioural auditing is the term used to define the concept of recognising and reacting to auditee behaviour within the planning, conduct and reporting of audit work'. [26 words]*

- *'Behavioural auditing is also be concerned with staff behaviour and therefore considers the efficiency and effectiveness of individuals in the operation of the system of internal control to manage risk to the achievement of an organisations objectives. Behavioural auditing is not therefore a separate discipline but an integral part of internal auditing as a whole'. [55 words]*

- *'The analysis of behaviours though the audit process, to better understand and deliver a good audit'. [16 words]*

- *'Behavioural auditing is the application of behavioural analysis in the audit context. It is the analysis of risk and control from the perspective of why and how do people take risk / respond to risk'. [34 words]*

- *'Behavioural auditing analyses the behaviours demonstrated by individual staff or staff groups and comparing this against the 'preferred behaviours' expected by the organisation or a predetermined benchmark. Differences from the expected norm provide the starting point for further investigation'. [39 words]*

- *'Behavioural auditing is a psychology issue and is related to the examination of how people behave in different situations. This goes beyond system based issues and tries to look at what really motivates / drives people'. [36 words]*

- *'The audit of relationships within an organisation'. [7 words]*

- *'Behavioural auditing is the intuitive identification of potential problems or issues through the subtle observation of behaviour in others or changes in auditee demeanour. In order to be effective it requires skills developed over time'. [35 words]*

These definitions illustrate the range of understanding about behavioural auditing but do not hone in on any one type of definition or even the components to be given in a definition. I therefore make no comment on these, other than that I prefer the last one as it considers intuition as a factor.

5.5 Is behavioural auditing a stand-alone, generally applicable audit technique?

This section asks: Is behavioural auditing a specialism in its own right, or, is it one of the techniques in an auditor's tool box of techniques, and, is behavioural audit applicable to all types of audits. The interviewees replied:

- *"I think it's one of the tools in the armoury. I think that from an external audit perspective you would need some other form of evidence, but certainly it would be part of that evidence".*

- *"To be honest, I don't think behavioural auditing is a separate discipline, so it will be factored into every single review that we do".*

- *"For me it's one of the techniques. Certainly it's not something that I would do as a stand-alone piece of work. For me it's part of the tool kit that you use on any audit. And any audit involves relationships with people within the organisation – so for me it forms part of that".*

- *"I think it's another tool for the auditor to use – something that the auditee isn't aware of. Because the very nature of the auditee being aware that that's being looked at would then alter their behaviour"*

- *"I think it's part of the auditor's skill set. You might choose in a certain scenarios or difficult situations to say that I want people particularly with the stronger behavioural audit skills".*

- *"For me it's farcical to think of it as a stand-alone technique, because that would mean neglecting all the other techniques which are even more required and are part of an auditor's armoury. So I think it's a tool in the tool-box but it's a thread running through everything thing that you do. It colours what you do. So you might be using aggressive techniques but you're still using behavioural auditing. So it underlies and underpins everything that you do".*

All the interviewees concluded that behavioural auditing was not a specialism or a technique in its own right but was just one of the tools in an auditor's tool box or armoury.

- *"I would say every audit. It may not form part of the audit programme that I tick off, but I would probably do it in every audit".*

- *"I probably use it in every audit. I think it's almost unavoidable because you do it – it's natural instinct, and I think that if you were to try to curtail it, it would be obvious that you were trying to do something that wasn't natural to you. So I would say that it's all the time, probably, primarily, if you had to focus on an area – primarily in areas where you would be looking more at investigative type work, because you're looking for the other signals".*

- *"Well as I say it would be generally throughout all the time – you're always looking for the other signals, the other clues. But that would be the primary focus because that's one where you sometimes you just need the human interaction really. To be able to tell whether it's truth or lies, or somewhere in between, or indeed whether there are some other questions that you need asking".*

- *"I'm sure you do that subconsciously".*

- *"You're still ultimately dealing with people and assessing them when you're talking to them, particularly with IT audit because a lot of auditors don't like to audit IT areas - they'll audit around the box not the actual box itself. So as people in the IT world often talk in very technical language, you sometimes have to rely on those judgements – do I think this person is telling me the truth or are they trying to blind me".*

- *"Probably yes. I think to different extents in different areas. I'm not sure that IT auditing necessarily has the same impact [benefits of behavioural auditing]. Maybe that's my background prejudice. Certainly financial auditing would have quite a big potential impact".*

- *"I don't think the subject matter is necessarily relevant. I think it boils down to people in the end. Who you have to deal with. The way you interact with them".*

- *"I don't think there's any differentiation. I think I would use it when I was interviewing anybody".*

- *"Oh yes, particularly in an HR audit. I think that's because we tend not to do our HR audits with an HR – we do them at the coal face [ie, the line departments]. And also, using behavioural auditing helps to break down barriers if you are not using HR specialists on the audit with you".*

- *"Yes. You do for HR people certainly. Probably when dealing with medical staff also".*

All the interviewees also concluded that behavioural auditing is applicable to all types of audit, but could be especially useful in areas where soft skills are important, for example, in the audit of an HR department.

I also compared the replies by the interviewees who said it was either applicable to all audits or a technique in its own right. The results, which are included for completeness, were:

Applicable to all types of audit?	**Technique in its own right?**
Internal Audit	
"The elements of Behavioural Auditing are required all the time" *"Not really"* *"Used when interviewing anyone"* *[We] "all should be better at Behavioural Auditing"* *"Yes, especially when dealing with medical people"*	*"It's farcical to think of it as a stand-alone technique ... It's a tool on the toolbox".* *"I don't think it's a separate discipline".* *[It's] "one of the techniques"* *[It's] "part of an auditor's tool kit"*
Audit Consultant	
"Yes, in all [audits], but subconsciously".	
External Audit	
"In every audit" *"No"* *"Never"* *"Yes, my work is a mixture (of BA and standard audits]. I think there's more scope in the internal audit side".*	*[It's] "one of the tools of the armoury"*
Combination of audit disciplines	
"Every" *"Yes, particularly in HR audits"* *"Yes - to break down barriers"* *"Yes - it is more relevant now[adays]"* *[I would] "consider it if there was additional risk identified"* *"Probably, yes"*	*"Yes, part of the whole" [set of techniques].* *"Another tool"*

5.6 Recommended definition of behavioural auditing

From the wide variety of all the views expressed by the textbooks (which list the elements of what behavioural auditing consists), the interviewees (who provided comments on my three suggested definitions of behavioural auditing), and the variety of different definitions

of behavioural auditing provided, it is inevitable that there will not be universal agreement on a 'correct definition'.

I have always maintained that much of the audit work I have personally carried out is behavioural auditing, without having defined what that is precisely. Therefore, I also bring my experience into the process of defining behavioural auditing. From all of the above, I have honed in on six facets of the arguments. They are:

- Brief is better.

- There are two types of behavioural auditing:
  - A specific audit of the behaviour of those staff who carry out a specific role in which their behaviour is critical to the function of their organisation, and

  - A general tool in an auditor's tool box to assist in forming an audit view of the effectiveness of the auditee, and thus that auditee's contribution to his/her organisation.

- It is necessary to have both experience and training in how to carry out behavioural auditing, but a definition of the subject should not include a statement on how to do behavioural auditing. Including such a statement is not, per se, a definition, and detracts from any such definition.

- All disciplines of the profession use behavioural auditing. I noted feedback from a partner of a chartered accountancy company who said that his observation on auditee behaviour was very material to his subsequent audit work. I noted feedback from internal auditors who looked at me blankly as if to say 'what's new', and then went on to say that any good auditor uses his intuition and audit nose to identify problems – *"that's the difference between an average and a good auditor"*.

- Behavioural auditing is about an auditor getting 'soft' feedback about an auditee.

- Of all the definitions postulated, the one that would have best described my personal and historical analysis of what I thought behavioural auditing was, said that *"Behavioural auditing is the intuitive identification of potential problems ..... over time."*

I therefore postulate and recommend the following definition of behavioural auditing.

Behavioural auditing is:

- *The identification of issues which impact on an organisation's effectiveness by the observation of staff behaviour, and/or*

  - *The audit of a department in which the behavioural attitudes of staff in that department are critical to customer perception of their organisation.*

(40 words)

It is usually undertaken by appropriately trained, experienced auditors.

5.7 The practical use of questions relating to behavioural auditing

This section looked at the application of body language. This can be used by auditors, and is used by some to help understand the auditee better. Thus, I argue, it can be used to identify issues that may impact on an organisation's effectiveness.

I also argue that the realms of body language and behavioural auditing intersect. As body language is a 'soft audit skill' it is both very convenient and appropriate to examine body language as part of the scope of behavioural auditing.

In this research I have looked at the practical use of applied body language by auditors as a tool to help them identify issues which impact on an organisation's effectiveness by the observation of staff behaviour and/or changes of behaviour.

The data analysis in chapter 4 identified five conclusions that were relevant to this discussion – see paragraph 4.7.1.

- 7% of those interviewed said they did not use body language as part of behavioural auditing; 25% said they positively used it.

- The key element in body language observed by an auditor was the auditee's eyes. Poor eye contact caused suspicion.

- Only four interviewees said that it was important that two or more elements of body language should be considered. This indicates that auditors who use the interpretation of body language as a tool require more training in it.

- Most interviewees said they would not alter the scope of the planned audit having considered the auditee's body language at an initial meeting with them.

- 89% of interviewees had not positively received training in the interpretation of body language

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5.7.1 The interpretation of body language by auditors and which elements of body language are considered important

The overall perception that I formed about the interviewee's understanding of body language gave me cause for concern. I expected – indeed hoped – that interviewees would reflect my research into the application of components of body language, namely that there is no one key feature on which an auditor should depend when observing an auditor that they interviewed. Rather, the differing elements such as stance, eye contact, upper face movement, lower face movement, hand and arms, etc, should all be considered as a whole. See also chapter 2, tables 2.5, 2.6 and 2.7.

I argue that it is unsafe for any person to form an opinion of interviewees by concentrating on any one element of their body language. For example, poor eye contact between an auditor and an auditee does not necessarily mean that the auditee has something to hide, it may just mean that auditee is shy. Similarly, if an auditee folds his/her arms during an

interview, then he/she may be being defensive because of something to hide, or it just may be that that body position is more comfortable.

In addition, I noted that no-one who I interviewed mentioned that, unless the interviewee is well practised (or trained) in 'not giving themselves away', questions that require them to give a false answer will also cause them to make minuscule but nevertheless involuntary and observable eye movements (especially table 2.7).

'Simple / simplistic perception'

Most of the people I interviewed honed in on one body language trait, for example:

- *"Probably the **eyes**".*

- *"I suppose it must be something. I am thinking of one person who was brash, overconfident. [gave examples of how this person was brash]. He **did not make direct eye contact**. And being brash **and no eye contact** didn't go together……. He was almost aggressive in his brashness".*

- *"I would say the **eyes**. Because I've found a lot of directors don't make **eye contact**".*

- *"I don't know – just the nature of the response, and the way that the response was delivered. Well, you know, body language – if they're not going to look you **in the eye** when talking about something, then you're going to think are they actually telling the truth?"*

- *"Yes it would, but it may be that you were shy, were uncomfortable with the situation……I've read answers as well which identifies the characteristics when not telling the truth, **not making eye contact, etc**".*

- *"I would say really the **eye contact,** probably. People that we have make a lot of eye contact, but if they suddenly make eye contact which is different from their normal way then that would just make me ... aware".*

- *It's a combination of everything. And indeed it's how people interact with you; whether they can <u>look you straight in the eye</u>, and it's even down to how their voice may change and words they might use. So it's all of those things combined".*

This is the danger of a 'little learning' in which auditors, and others, have heard that, if a person does not look you in the eyes, then they may not be telling you the truth. As previously said, eye contact is just one factor; the auditee may just be shy.

'Vague answers'

Many interviewees gave rather vague answers, and continued to be vague when I asked more probing questions, for example:

- *"Probably the face because if you can't have eye contact with somebody .... It's probably eye contact that is the key thing..., yes the eyes for me are a key thing. The hands as well. But that's picked up purely from experience rather than any particular coaching, or anything".*

- *"It's mostly their initial reaction. Nobody likes being audited. But it's how they act at the initial meeting which will indicate how that audit's going to go, and that's where you make your decisions as to how you need to interact with them".*

- *"I can't say that there is one, but you do get a sense from somebody in terms of their physical stance with you in terms of whether they are engaged with you positively or negatively. I suppose in terms of a traffic light system – I hope that's in green and what appears to me to be comfortable ..... but I will get 'nervous' if I think that it's off to a bad start. And then my radar will be going off".*

- *"The only thing that I think is that sometimes that as an external auditor most people we audit are used to being audited, but in an internal audit environment, we can audit people that have never been audited before. And they've got this perception in their minds that it will be negative. So sometimes people are nervous anyway. They might do all those things …….. you look at that a bit, and also judge if they are experienced or perhaps quite junior..... so I wouldn't take that as an indicator to increase my audit work there. Sometimes I'm more concerned ………about the more senior person – if they were like that I would think that's a bit strange….".*

- *"I suppose the most common is when you ask a question and you immediately get the sort of uncomfortable shift in the seat that makes you think that he didn't like the question – what are you going to get as the answer? I suppose, looking away, diversion of eyes, looking down, or looking up when he's thinking what to say next. All those things suggest to me that the person's not comfortable".*

My overall concern is that the interviewees wanted to say the right thing to me, but either did not have a good enough basis of practical application of body language, or enough training in its use.

'Combination of traits'

There were a minority of interviewees who did indicate that it was important to consider a combination of observed traits:

- *"I think to be honest, posture gives a lot, but a **combination of two or more tells** me more. So if you had a very sort of engaged eye contact with open body language I would be more attuned to believe in that person – a person that was freely giving information and didn't appear to have anything to hide. Whereas an open posture but with a non-direct eye contact would give me conflicting messages and tone of voice as well. If two or more coincide then that's a positive sign, if they conflict it tends to make you more suspicious than you would normally be".*

  *"The tells can vary according to the individual. So people will typically move their legs up and down. And I see a number of videos where you can be as calm as you like above table level, but underneath the foot is vibrating. And a number of people do this. There are tells such as biting the end of a pencil, looking away, the tip of your nose going white is a sure sign of a lie, colouring up, poor eye contact, but there are a **number of tells** really and they vary to the individual. The trouble with making it a science is if you write it down, some idiot will think that it's the [absolute] truth and just go with that. And it only comes about through age and experience You cannot teach this".*

- *"I think it changes at the stage of the process. I think at the initial stage when you are going in you're looking for a general contact and you're trying to pick up as much as you can from the **whole** body language. I think then as you've got audit findings and you come back ……. As you come in you are concentrating on the eyes, because it's the first window and it's so clear. The eyes and then the face, and then the shifting in the seat".*

- *"Well my understanding of the way body language works is **that all of these factors are taken into consideration**. And if you put too much reliance on one particular factor, you can get false readings because someone may have a tic in their eye, a cough, whatever, so you've got to bring in everything".*

- *"I think there could be a **mixture of things**……………The things that would alert you would be the defensive attitude Sometimes that is not wanting to actually spend some time with you, either not giving you the information you want or trying to overload you, or coming back aggressively ……….. Some of it is about the language and the attitude. Some of it can be body language…I wouldn't go just on body language because sometimes crossing the arms could be defensive, or they could just be shy. You can't judge just on that. It's the full picture. It's a number of different things, it's the whole package".*

- *"Yes, I think there's an element of doing that implicitly if you can read body language anyway, I've done a study of Desmond Morris and have picked up some tips from body language. I think there is a lot to be said for Body Language – it doesn't give you the whole picture, its just another tool.*

  There are tells or tics that you can notice about people, particularly if you've audited them before, but certainly crossing their arms, leaning backwards, crossing their legs, are signs of defensiveness and leaning forward is more a sign of being engaged. If you actually gather that [information] then you can use it to your advantage. If you've got someone who's not interested, is defensive, then you can bring them in, or adopt a gentler strategy. If you have someone who's leaning forward, then you can just let them talk.

  I think I do it [ie, use body language as a tool].. I do it all the time. I think that all good auditors do it. Quantifying not in terms of 1 to 10 ,….. but you could actually make positive judgements whether someone is actually telling the truth and I think you have to all the time. I've been in interviews with suspects who are actually fraudsters and as part of it they're actually telling you something … for example, if they tell you that they were going to return the goods they have taken … and you have all these things and the way the quantification comes in is how true is that? They may have genuinely intended to return the television, or whatever, but over time they were too embarrassed to or perhaps they never intended to. So they're not telling the truth by saying that they intended to if they've had it for two years now. However, they may have intended to return it at the start. There's an element of motivation and morality".

These results were summarised in paragraph 4.4 and table 4.1. The detailed interviewee comments re-enforce conclusions from chapter 4, p91, namely that:

- The key element in body language observed by an auditor was an auditee's eyes. Poor eye contact, especially, caused suspicion.

- Only four interviewees (with six types of audit experience between them) said that it was important that two or more elements of body language should be considered if meaningful information about the auditee was to be sought. This indicates that more training in body language is required.

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'Use of Neuro Linguistic Programming (NLP)'

One interviewee makes use of NLP:

- *"The willingness to engage [is the most important element that an interviewee must show]. Somebody who's willing to look at you. To talk to you, to not cover their mouth. So there are a lot of people with mannerisms which, if you read too much in it with the whole body language thing, you can say 'total fraudster', but, I think you have to set some of them to one side. The whole thing about the eyes actually looking to the left, looking to the right [ie, NLP] it's all about making something up as opposed to recalling it from memory. That was taught to me, and whenever I'm in doubt, it's something that I focus in on".*

NLP has not been considered in this research, but its application to audit interviews could well be a fruitful subject for further work. I would argue that for auditors to use NLP effectively, they must study the subject in depth, but not until after they have received appropriate training in more basic body language. This is has been noted in Chapter 7 as an area for future research.

'Cultural Considerations'

Finally, there were only two interviewees who identified that body language varies because of an individual's native country/culture. They said that:

- *"They [the French] are much more open with their body language. They tend to use their hands a lot more in my experience, but their management style generally is very different. My impression is that there seems to be a lot more act now and determine why later..... A lot of meetings are around a table – so can't really see their feet. They're very big with their hands. Fumbling, scratching their head a lot, nervous. Concern if they won't make eye contact at all".*

- *"In Asia, they tend to agree with everything even though they are dead against it, so there definitely are cultural things".*

- *"No. I don't think that is valid [to guess people's body language whose culture you do not know]. I think that if you are auditing in a different country you have to be aware of the differences, and if I was working in the Ukraine, then I would keep a completely open viewpoint until I amassed a body of knowledge".*

This research has excluded the examination of the body language of non-native British people, but it is important to note that when explaining, studying or training auditors to consider body language as an audit tool, it must be remembered that body language varies between cultures. In this multi-ethnic world, this area demands further consideration, and is recommended as a subject for future research, see chapter7.

To conclude: auditors are in danger of 'a little learning' where body language is concerned. If this results in false accusations or unnecessary extra audit work, it is worse than useless. However, if the interpretation of body language, albeit in an amateur way, makes audits more effective or has the potential to do so, then it is a worthwhile tool as part of behavioural auditing in general, and one that can/should be developed.

Potential development is through training and or experience. This, together with two possible direct benefits, is discussed immediately below.

'Training received in body language'

I asked interviewees what specific training they had had in body language. Their replies identified that little training had been received and the recognition by the interviewees that a little knowledge is a dangerous thing. Some interviewees stated that training was more important than experience, others the opposite. I have grouped the feedback about how much body language the interviewees had had into four:

(1) The 'none' group, which applied to the majority of interviewees, and for which I make no comment.

- *"No. None whatever. Not that I can think of".*

- *"No" [Answer received by many interviewees]*

- *"I have to say none. That's because I have only a very rudimentary understanding of body language. I don't really know enough about it. So what I do is try to form an overall opinion…………*

(2) The 'some' group.

- *"It's through experience and reading of books on the subject. But the thing is if you have an auditee, they will typically spend the whole of the interview sitting back with their arms crossed. The time when they change their posture is the time when they are changing their viewpoint and that viewpoint may be more warmly embracing what you are saying or it might be that you have to look for the tells".*

- *"Purely from TV I'm aware that there are certain things that do mean .... examples given. But I've not had any formal training".*

- *"Yes – I'd like to think so. My knowledge of body language is fairly limited – I've read a couple of books which have included sections about body language - assertiveness, looking at people, who's in charge of a particular area, that sort of thing. So, I would use it in trying to determine if someone's hiding something, If they're quite open and comfortable with the processes they're doing and the work they're doing, if they have an open door policy and are quiet proactive in providing the information. On the other hand, some people are quite keen to whisk you through the door as quickly as possible".*

- *"Depends what you mean by training. [I've] Done interviewing techniques and all that type of stuff. But the training that I would say I've had is experience. Years of experience. I think that auditing is one of those unique jobs where you spend a lot of time talking to people. And therefore you spend a lot of time looking at people, listening to them, watching their body language, falling out with them, arguing with them, being threatened by them. Over the years. And you do build up expertise. Whether or not it makes you an expert or not is for someone else to say".*

- *"Some of us [External Auditors] have had certain soft skills courses – not necessarily body language but certain people's mannerisms, thought processes. Interview courses".*

Those that said they had training could not refer to any specific body-language courses. My overall finding was that what training had been received was haphazard and not to any quantifiable standard.

(3) The 'I think it would be useful' group, and on which, again, no comment.

- *"I wouldn't rule it out. The only concern I have about it I suppose is that you straight away, as soon as somebody has some sort of body language, that you then increase our audit sample. Some people [auditees] can be quieter can't they?".*

- *"I think that anything that you do in terms of training in the softer skills area is always useful, but isn't really a substitute for the appropriate technical qualifications and training that you undertake. I think that they [Softer-skills courses] are useful additions".*

- *"I think [body language / behavioural auditing is] instinctive, but it can always be improved. And the training would improve it".*

And (4), perhaps inevitably, one interviewee was against any training.

- *"I think that training would hinder you in some ways because you would be too concentrating on what you were doing all the time. I think it's a personal / interpersonal skill; either you've got it or you haven't in some ways. I think you've got to have it to start off with and then you can build on it. I think that if you find it very difficult to communicate with people, you never really understand the way they are ……".*

I think this last quotation is a short-sighted, perhaps arrogant response, as it assumes that some auditors have no inherent communications skills and that, for those, training would be a waste of time.

I have listed below the responses made by those interviewees who itemised what training they had received on body language, and I noted, in bold, the courses that they attended.

- *"Well I did when I was studying and I've been on training sessions with the **IIA** that covered sort of interpersonal skills and reading of other people and how you do this that and the other, but nothing specific about behavioural auditing and what you should be aware of, etc, etc". [General discussion about qualifications – the interviewee left school at 16 and then trained and obtained the MIIA exams when working as an auditor. Received MIIA in 1998/9.]*

- *"Yes, it was part of the syllabus of the **IIA exams**".*

- *"Some training, yes. Probably though ... I received training from probably an ex **MI5 person** who specialised in interviewing people, and interviewing witnesses, and indeed criminals, and when they were training us on the PACE they also included some Behavioural and Listening together, to show how you could use that to your advantage, certainly in the interview situation".*

- *"Yes. Long, long ago when I was working at the **Department of the Environment**, the very first introduction to management training talked about body language. At my next employer, in the mid nineties, we were exposed to some training .... he was extremely good ……… he was the one that made me think that the words used are only 10% of the message, you get about 20% in the tone, and the rest of it in the body language".*

- *" I've been on courses that have included training in body language [**at university** which included if] the candidate is showing signs of anxiety, scratching or touching their face, this sort of thing".*

- *"I think you have to go through training. And then experience will then build your knowledge. Initially you need training in how to do it - police and various other agencies".*

- *"We have done a program within this [**Chartered Accountancy**] firm, though I've escaped it twice ...and it's involved with the way people interact, both internally and dealing with clients".*

I have been involved in detail with the IIA's MIIA examinations for many years, and I also have a good knowledge of their training programmes. I do not believe that they provide any substantive training in body language whatever. I do note those interviewees that had been trained by specialist people, eg: an ex MI5 officer, were, not unsurprisingly, those that showed the most understanding of body language. I do suspect that there is much scope for training to be provided by this calibre of trainer. These results are also supported by my initial proposition J, see chapter 2, paragraph 2.2.5.

To conclude: auditors have received little training in body language. With the exception of courses provided by formal fraud investigators, those courses highlighted by interviewees as providing body language training usually provide very superficial training.

Courses mentioned by external auditors were often linked with potentially understanding the needs of clients. I would suggest that these courses are not to improve audit skills specifically, but are more to highlight the potential needs of their clients, and thus a business opportunity for themselves.

The inevitable conclusion is that if and as auditors are encouraged to use body language, there is a market opportunity to develop and properly provide detailed courses to train auditors about the skills and techniques of the practical use of body language to their work.

5.7.2 Was the potential scope and/or depth of planned audits altered by input received by the interpretation of body language?

I posed the following scenario to the interviewees:

- *If, during an initial discussion with a line manager about a proposed audit, the auditor had concern about what he and/or his team would find because of their interpretation of the auditee's body language, would the scope of the subsequent audit be altered?*

Interviewees displayed three choices of reaction: 'No, I would not alter the amount of work', or 'Maybe I would alter the amount of work' or 'Yes, I would alter the amount of work'. Each is considered in turn below and they are grouped progressively from the no change to the maximum change of audit-plan/scope/work.

The 'No' interviewees said that:

- *"I don't know whether we would. It would depend on the nature of the work we were undertaking but if you were forming an audit conclusion on that particular process, you need a certain testing strategy – and you would need to do that – and I think it would be certainly a dangerous avenue to go down to say that my testing strategy is going to rely on my view which you can't really measure or quantify. Because, if you were asked to say, why didn't you do all your audit testing [and you say] 'Well the chap was a good chap, so I didn't think I needed to', or, why did you do a lot more work than normally*

deemed necessary ... 'Well, he gave me a bad feeling, didn't like the cut of his jib' ....I just don't think cuts any ice."

- *"Not the <u>volume</u> of work I don't think. I don't think I would go on first impressions at all – I think I'd have to have some back-up proof. So I think from the initial meeting not a lot would come from that except whether or not I thought we were going to get co-operation or not. I think that would be the main thing to come from that initial meeting. I think other than that your sort of perception of how much work you would need to do would then come from other discussions with the rest of the members of the team or looking at documentation, whatever. But I think it would be a mistake to try and base the work that you do on something if you judged it just by your initial assessment of somebody. As you know, initial assessments may be totally wrong".*

These two replies hint that it would be dangerous to move away from the pre-set audit plan. I find this attitude alarming as it rates mechanisation over professional assessment.

- *"Our work is based on statistical sample sizes. I don't think that I would subscribe to the view that an assessment of someone's (or my view of somebody's) behaviour would necessarily impact on the amount of audit work I feel that I would need to do to gain the appropriate evidence in terms of audit conclusions. I think by understanding of behaviour you can perhaps get the information that you require perhaps much more easily, but I don't think that it would de-scope or de-restrict the amount of testing that you would do".*

For me, this answer rates statistical sampling as the key factor. Again, I find this attitude alarming as it continues to rate mechanisation over professional assessment.

- *"I think that there is an agreed amount of days initially, usually for a review, and so the only way is to justify why you are spending more time and so I would build something extra in more formally if it was very obvious or if somebody was being obstructive. But usually, the behavioural side of it, I don't think you normally would".*

- *"They always want more days!".*

- *"I think one might – in theory it sounds as if one certainly should. I think if one got to meet an individual and was worried about the integrity that he had, then I guess the first question is whether one would take on the audit in the first place.... But…..you may not have that luxury, and certainly there have been instances where one has been concerned about clients and done extra work – there is an element of that. I think that the behavioural aspects are often supported by other things as well which - for example, turnover of staff, perhaps difficulties in subsidiaries – where you see other things that may not necessarily impact on the audit, but will impact on the attitudes and judgements of management".*

- *"No. Probably because I have to plan out the number of days initially………….. I would then go with that in the first instance, but it would only be as a walk through. If I felt that the information that I was being given in the first place wasn't coming to fruition then I would think that I would have to delve deeper into this and consider interviewing other people to get their perceptions".*

- *"Not initially, no. But having said that would make my terms of reference as wide as possible. Sometimes people are cagey at the start of an audit – perhaps because they had a bad experience of audit before, so you give them the benefit of the doubt. If during the course of the audit they're being obstructive, then I might alter the subsequent scope".*

These five answers raise the issue of audit time and, thus, budgetary constraints. As such, I would suggest that a modification in the audit plan might be able to meet the concerns of the auditor without exceeding time constraints.

The 'Maybe' interviewees said that:

- *"No, I wouldn't alter the scope though I would perhaps do a little more work than otherwise. I would extend the sample size".*

- *"Probably not, no. Because you have to have firm facts. ……. We might suggest to our audit staff that they might like to spend more time looking at certain areas, so we perhaps do bias the structure of the work, but documenting that will probably not be the thing to do".*

- *"I think there's always a potential. I think as auditors we are - by nature we are suspicious characters. So I do think that if somebody's steering you away from something or not giving you the full picture you might not necessarily want to change the scope but you might want to deal with it a bit deeper".*

These three answers accept that an increase in audit work may be justified – they cautiously say a little more work should, perhaps, be carried out. I argue that if, pragmatically, more audit work is required, it should definitely be carried out.

Two further 'maybe' interviewee responses were:

- *"I think it would depend on what I was looking at. Because using a risk based approach, and if it [the potential problem] is at the lower risk end, we would limit the amount of time we would spend. If it was in an area where there is potential to get critical significant issues, we would definitely look at the scope of that, try and understand where the person is coming from, probe a bit more and we may try and spend some more time on that".*

- *"I wouldn't say I alter the scope (though actually I would) ………… I do look in detail at certain sections of the audit file which I consider risky because of the type of work or what they are trying to achieve, so the answer to that must be a yes – I do tailor the programme….. I have the ability to set an overall materiality level. I then can tailor (that level) down if I consider this may be a risky area, for example, if I have not had sufficient answers in the past …… I would reduce it down".*

I considered that these two answers are appropriately pragmatic – if there are problems, will those potential problems be of a (potential) risk to the company, and if so how significant is that risk? In addition:

- *"I wouldn't necessarily at that stage adjust the length of time that I was going to spend on the audit, but if I had very strong suspicions that I was being fed a load of ……, I would certainly be adjusting the way that I was going to go about it".*

- *"We would come about it in different ways. So we would try to start to establish other routes to confirm whatever the issues is. What I generally find is that you would come across something that is on one of those other routes that will allow you to go back, and not necessarily undermine the individual but just explore further x, or y, or z".*

- *"It can happen in certain areas, yes. So ....Probably not the size, but the focus. Time is a bit tight and we are committed to the scope of the audit, so we might do is alter our focus on one aspect of the scope. If I had a [major] concern I would go back to the audit committee, and ask for [more time] to expand".*

- *"I think 'more' is the wrong word - you may change the focus of your audit work, but in theory the reason you would be doing the audit was because you were trying to fill in a particular piece of the assurance puzzle, and therefore you would do it regardless of the sort of information that you were getting back. But it might mean that you would have to approach the continued work in a different way because you weren't getting a satisfactory outcome".*

These final four 'maybe' answers are again pragmatic; let's alter the focus; let's do the audit in a different way.

For completeness, I have also noted these three interesting but hard-to-categorise responses.

- *"Again, that's all about developing a rapport with your customers. I like to involve them in determining the scope…….. But I always have to have that audit nose again – do I think I'm being given a limited scope because there's some area that they don't want me to look at. So it's back down to that judgement again…………I tend to use a standard open-ended scope. If I have a real issue, and we can't agree the scope, I have to go to the Chairman of the Audit Committee, the MD, whoever". [Interviewee was an audit consultant]*

- *"Sometimes. It also may depend on their aspirations. If they have a small business but their aspirations are that it's now going to be a big business and with a big turnover – so I think it's the way that it's going rather than where it is".*

- *"I would be uncomfortable leaving that audit with that doubt in my mind in the first place. I think it probably would, actually. Though I've never had that experience here [in this company] that a person has concealed information or withheld information or has been economical with information, it just hasn't happened in my experience".*

The 'Yes' answers. I have split the answers from the 'yes, let's increase the potential audit work', interviewees into two groups: a small increase, or a large increase in audit work. This perhaps reflects the confidence the interviewees had in the usefulness of a body language assessment of the auditee.

Small increase

- *"I would have thought so, yes. If you felt that when meeting with them there was something awry, they weren't maybe on the straight and narrow, then obviously, yes, you would be thinking right, we've got to do enough work to mitigate that risk".*

- *"Yes you would. I think it would help you to determine the scope; not quite sure if it would help you with the statistical sample size or anything that that. But certainly when trying to scope, scope a piece of work or indeed a plan, it would give you a few indicators, certainly during the consultation process, that you could use when drawing up the plan".*

Large increase

- *"Yes. Most definitely so".*

- *"Oh, we do that all the time. We always discuss how the initial meeting went and we work out if we do need more time we do discuss. We do that quite often. It's the best way to do it".*

- *"Yes, because you all know - you have a gut feel – if this is whether you have a client who wants to get things right or not".*

- *"I would say, yes, quite frequently. Certainly before we carry out reviews of Housing Associations we would meet with the Chair of the Board, the Chief Executive, probably the Head of Finance, the Treasurer as well. And certainly during those times when you're trying to scope the piece of work or determine where you should concentrate efforts, you would be conscious of how people are reacting to the comments or questions. I would say, specifically with relation to carrying out the work, when you're interviewing people you would be looking for those clues as well".*

Two interviewees expanded the debate on this question. Their views are also given below as they do reflect issues that are considered at a practical level.

- *"I would like to look at this more closely because there's something here that just doesn't feel right. Things like getting woolly answers [from auditees], not getting concrete answers, not getting complete answers. Things like somebody not knowing what I would expect them to know. If I have limited prima facie confidence in this person. But I don't rely on gut feel, I rely on evidence. Let's see whether there is some evidence there to say whether this person's just a slightly odd individual or whether indeed they have got some limitations to their competence.*
  I don't come to conclusions from physical evidence – I couldn't go to the Chief Executive on that. It would give me concern but it wouldn't give me any physical evidence. Not enough to act or make a recommendation.
  We would use that [statistical sampling] all the time – our judgement to select the sample that we might take, rather than using full blown statistical techniques.
  The decision tree should be - what is the process, what are the procedures, what are they, where are they, etc, and then it should be how are we going to take a sample there. Then it will usually be a small sample based on the auditor's experience and the time he or she has got available.
  Maybe [I would authorise my team to expand the scope]. I haven't got clear, laid down rules. I rely on the experience and intelligence of the auditor".

- *"The easy and obvious answer is to say yes. But I don't think it's as simplistic as that because, and for your assurance proposition to have integrity, you have to say at the outset that in order for me to provide an assurance that's got integrity, completeness, etc, then I would need to know these things about the organisation. In order to know these things, I would have had to do work there, there, there,*

etc. As soon as something comes up that challenges whether or not your picture's right, then you can't just look at that one thing in isolation, you have to look at the rest of the picture as well. Because as soon as it says what you were assuming you needed to know to provide assurance ... So yes is the obvious and easy answer but it's not that simple".

All the findings in this paragraph were common to the three audit disciplines; internal, consultancy and external. Although the different disciplines may have different goals at the end of their work (Internal, an internal report; Consultancy, a report to their 'paymasters' within the company audited; External, an opinion in the accounts), I found this degree of commonality was based on the common role of auditor, namely, to identify problems and inefficiencies within a company.

Overall, I found these results both disappointing and encouraging; disappointing in that they imply that some auditors do not have enough faith in their use of body language techniques to make positive changes at the start of an audit; but encouraging in that some auditors do. It is acknowledged that auditors may be constrained by time and/or budget not to alter their plans, but, for me, this seems a potentially short-sighted course of action. I do note that some of the interviewees altered the slant of work, perhaps giving more emphasis to areas that they feel might have problems as a result of the initial interview with the line manager, and less to others, but this change is not especially due to their scientific interpretation of the auditee's body language.

One further issue may be that to make any significant alterations to proposed audit plans after an initial interview based on *"a hunch that something does not seem correct in that interview"*, may well not be considered an adequate enough reason. Heads of audit, line directors and others may be uncomfortable in accepting such an explanation for a change of plans.

I therefore conclude that the successful application of behavioural auditing techniques, including body language, will identify problems that impact on the organisation's effectiveness, and then that 'success will breed success'. The way forward is to provide better training in body language techniques for auditors and to quantify better the reasons

why an auditor identified a problem; statistical analysis, audit testing, a tip-off, a hunch (ie, audit nose), or a combination of all of these.

5.8   Behavioural auditing and the identification of fraud

Of those auditors whose interpretation of body language caused them to suspect that the auditee was guilty of fraud, a subsequent investigation proved that, in a high percentage of cases, their suspicions were correct (paragraph 4.8.1 and table 4.7). Perhaps bizarrely, perhaps otherwise, a high proportion of those interviewees who used behavioural auditing / body language potentially to identify fraud, were from a Celtic background. This statistical 'Celtic finding' is noted without further comment. It may be an area for future research.

Extracts from the feedback that I received are given below. They illustrate that some interviewees do find fraud through their application of behavioural auditing techniques, as well as doubts voiced by others.

- *"Not that I can think of".*

- *"No. Certainly not fraud. Though it has identified some poor practices or weaker controls than we were led to believe. More about the framework in an organisation that can lead to fraud if something is a bit lax".*

- *"There've been instances where you get an instant dislike of somebody based on their body language. They have seemed perhaps quite cagey – their arms crossed, leaning away, nervous appearance – looking around – furtive. In terms of identification of fraud, there has been an instance where I was querying a particular happening and I just wondered if it had been an error, and the person's body language led me to believe that perhaps it wasn't straightforward and things weren't as they should have been. I subsequently handed it over to our fraud team".*

- *"Well you can tell a lot from their body language obviously. I used to be a fraud investigator, so we learnt to use body language as an indicator……I think its about how people react to you initially, is the first give-away almost, because its their reaction to you when you come in. You can usually tell whether or not they're thinking, "Oh God, it's a bloody auditor", or "Ah, great, we're going to have a great interaction, here " or whatever. And I think it then moves on from there. And I think you can tell when people don't really want to engage with you. People then don't look directly at you but looking slightly at you and also out the window. And when people aren't being totally truthful with you they'll try and do something with their hands, usually".*

- *"Yes [my instincts did cause me to make further, fraud-type, investigations, but] No! [no fraud]. The majority of instances where that has been the case has been in more a case of self-preservation stance. They haven't done anything wrong, they just haven't done it properly".*

- *"I think it [behavioural auditing / body language] would be very helpful in that [fraud investigation] kind of arena. Though in our company, audit do not investigate fraud - we have a specialist fraud department. I think clearly that there is very strong evidence to support that skill – it's the type of thing that police use, I'm sure that it's something that people on our fraud teams consider and in terms of things like insurance claims, there's a whole raft of new technology, cognitive questioning techniques, and stuff like that in the insurance industry". Note - we then discussed phone systems that can identify from the timbre of the voice if a person may or may not be answering insurance quotation questions truthfully".*

- *"Yes, there is one [audit] in particular. A current example was cited".* Details of fraud withheld here because of confidentiality.

- *"Yes – it just didn't feel right. [Audit Nose]".* Examples of a confidential nature given about this particular situation.

- *"I've done several of those [when] I thought a person was being shifty and I was not happy and spent an inordinate amount of time proving that there was nothing wrong. One person I was thinking of was on medication, so he did not blink and he just gave a wide-eyed fixed stare, and he gave me his message and I wasn't believing it.*
  Having said that, I interviewed a person and when I touched onto overtime, the person I was interviewing just froze. That person was not on the sample for overtime, but because of her reaction, I included her in the sample. [we then discussed the supporting controls not run correctly by management to highlight and correct this before the problems arose.] But definitely in this case the body language of the interviewee changed".

- *"It was both [statistical analysis and behavioural audit / body language]. It was instinct which was corroborated by the hard evidence. If we feel that instinctively something is wrong at a branch, when we come back [to HQ] we do further investigation which proved that there was further irregularities".*

- *In answer to my question: In your opinion, is there a direct correlation between your instinct and the person who was subsequently found to be fraudulent?..*
  "Yes. Three times. Actually, four. There was one that I knew that there was something. I did not know whether it was a fraud or an irregularity, and we still haven't got it locked down as to which. We don't yet know whether it was deliberate or incompetence. But they knew as soon as we started to talk to them, that they needed to hide something".

There was one dissenting voice ….

- *"I've often felt that people are being economical with the truth, but it's as much objective information as body language. For example, the thing that's peddled around that 70% of communication is body language. That's bunkum. If you trace it back to its origins it goes back to the first part of the 20th century and it's unsubstantiated. But it's like one of these things which is taken as a self-evident truth when it is completely not so".*

The overall conclusion here, however, is that there was too small a sample size of auditors whose role included fraud identification, or who had found fraud(s), to validate adequately these findings. As this line of my research is supportive of, but not critical to, the main issues of what behavioural auditing is, I therefore propose to conduct further, longer-term research to see if one can use behavioural auditing as a tool to help identify fraud.

5.9 Summary and Conclusion

My summary and conclusion, which encompass those from chapter 4, are given below.

5.9.1   The use and proposed definition of behavioural auditing

There is misunderstanding about what behavioural auditing is and some scepticism about whether it applies subjective judgement-making to the traditional, totally factually-based, audit process. This is countered by statements from experienced auditors who expressed surprise that I was enquiring about the use of their intuition; they believed that any good auditor uses his intuition and audit nose to identify problems, and *"that's the difference between an average and a good auditor"*.

These misunderstandings can best be overcome by providing training which is based on a clear, good definition of behavioural auditing is. The recommended definition is:

- ***The identification of issues which impact on an organisation's effectiveness by the observation of staff behaviour, and/or***

- ***The audit of a department in which the behavioural attitudes of staff in that department are critical to customer perception of their organisation.***

5.9.2   The use of body language as a part of behavioural auditing

The interpretation of body language, which is both a science in its own right and a tool to be used by auditors, can help behavioural auditing. However, although the use of body language is recommended in audit textbooks, little effective training is provided for auditors on the use of body language, and there is a danger that they may be tempted to apply half-learnt theory to their practical audit work. There is a need and, indeed, a good potential business opportunity to provide 'Body language for auditors' courses.

5.9.3   Can the interpretation of body language assist in the potential identification of fraud?

Within behavioural auditing, the interpretation of body language is, potentially, a helpful tool in identifying fraud.

Finally, the results of my further research into body language are given in chapter 6.

Chapter 6   <u>Behavioural auditing - analysis of a practical application</u>

6.1   Introduction

One of my key propositions is that auditors who are trained in behavioural auditing can identify those auditees who provide incomplete or dishonest information more effectively. I have already identified that the observation of an auditee's body language is a practical application of behavioural auditing, and, in paragraphs 3.5.1 to 3.5.3, I suggested ways of testing this proposition:

- Three separate but identically set up workshops designed and led by myself and supported by two actors. Different scenarios will be presented to the population who attend the workshop. These will both inform and train the attendees about the body language that might be used by fraudsters. It is proposed to run the workshops at Cass.

- Written questionnaires and oral feedbacks by the attendees during and immediately after each of the workshops.

The aim is to run up to three small workshops. Each will comprise Junior ($<$ 2 years experience), Middle (2 - 5 years experience), and Senior staff ($\geq$ 5 years experience). If possible, to have a bias of, say, internal auditors in workshop 1, students/ academics/institute staff in workshop 2, and external auditors/consultants in workshop 3.

I then proposed to present six virtually identical 5-minute (maximum) scenarios to attendees. Two actors; actor 'A', the 'finance manager' and actor 'B', the 'auditor', will present the scenarios. Actor 'A' is answering questions posed by actor 'B'. The questions display that the auditor does not suspect a fraud, and the oral answers in themselves give no indication that a fraud might exist. The actors will use the same words, and the same intonation of those words, from one scenario to the next but actor 'A' will display different levels of fraud; <u>N</u>on-existent, <u>S</u>ome or <u>L</u>ots.

6.1.1 Script

I wrote a script based on a fraudulent accounts payable manager (APM) who I met as a practising internal audit manager. The script illustrated a long-standing APM who had been doing the job for many years, without being especially supervised or having had effective audit review before. In this fictitious scenario, the APM initially wrote the Accounts Payable computer system some ten years earlier and thus knew that it was easy to create false creditors and to make payments to these 'creditors'. This he did, thus pocketing an extra income of some £10k pa. He was aided by one of his colleagues in the department, who was also his girlfriend (although this relationship was not known by the auditor).

I found that a script that ran for a little over four minutes covered all the points that I wanted to make, and that this could conveniently enable the observers to answer a round number of questions. The final script, which requires exactly twenty answers from the auditee, and is highlighted in grey below for clarity, was:

	Auditor – David Brown (Q)	Interviewee – Gary Smith (A)

Q   Good afternoon Mr Smith. Gary? My name is David Brown and, as I hope your manager has mentioned that we're carrying out an audit of this part of the finance department.

A.1   Yes, he has mentioned it.

Q   Now, I've just a few introductory questions, which I hope won't take us very long. I believe you manage the accounts payable section – is that correct?

A.2   Yes.

Q   So would you please tell me the system for making payments to the company's creditors.

A.3   Well, its very simple really; I get an invoice in the internal post from a line manager who's signed and dated the invoice to say it's ok to pay. Then I look up the creditor's name on the 'EasyPay' computer system, and if the name and the address are correct, I type into the system the amount to pay, the correct allocation code - the manager also writes that on the invoice - and then I press the 'enter' button. The computer give a six digit code - we call it the 'Pay Code', which I then write onto the invoice. Then I put the paid invoice into the 'paid tray'. That's all really.

Q   Do line managers date their requests for you to pay the invoices?

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A.4   Oh yes, always. Well nearly always, you know how it is, some managers just don't follow procedures.

Q   Do you check the line manager's signature to see if it's genuine?

A.5   Yes

Q   Have you ever had any false signatures?

A.6   No

Q   What would you do if you did see, or get, a signature that was false?

A.7   Well I don't get false signatures.

        You see - I know all the managers that sign invoices.

Q   And what happens if you get a duplicate invoice … say a creditor accidentally sends in the same invoice twice?

A.9   Well, then the line manager would spot it and not send in the invoice

Q   (pause)

A.10   And if the manager failed to spot it, when I typed in the same amount again, then EasyPay would immediately send a message for me to check the previous invoice. It gives me the pay date. My staff file the invoices by creditor and date.

Q   Do you get many potential duplicates?

A.11   No. Very few. I make a note of them in the red book - (points to a book) - and then send the duplicate back to the manager.

Q   (pause)

A.12   It's a very good system really.

Q   What happens when you get an invoice from a new creditor?

A.13   I set them up on the computer. And before you ask, my colleague, Barbara Jones [*] makes sure that all the creditors are genuine, real address, everything.

Q   Including VAT number?

A   --------   (Looks uncertain)

Q   Well, that's excellent. Now we both know that some suppliers sometimes charge for the same goods twice. It might be accidental, or knowing that computer

systems such as Easy Pay check these things, a supplier might send a second invoice in for a slightly different amount. What would happen if you got two invoices from the same supplier and for the same items but for different amounts?

A.14 We have done. There was one just a few weeks ago. One of my team spotted it when they filed the new with the old and they brought it to my attention. I can give you all the details if you'd like. I had a look and then called up the line manager. We've tightened our systems even more since then. When we file an invoice we have a look at all the invoices from the same company for the previous three months and follow up anything that seems not quite right.

Q That's excellent ….

A.15 And line managers used to make a note of how much they expected to pay to a company, and if too much is paid then it's now their job to make sure that they can explain why so much.

Q Good. Good. So are there any line areas where you think there might be problems?

A.16 Not really. Some may be better than others. At the end of the day, it's our job to pay what we're told to.

Q Now, is there anything else you can tell me about the computer system that you use. I believe that this system was written in house some years ago.

A.17 [*] Yes.

Q You said that it checked for duplicate payments. Are any further checks that it does in the system that you haven't mentioned yet?

A.18 No, not really.

Q What happens when the system - Easy Pay – fails? Can you make payments by a manual cheques?

A.19 Yes. The checks on that are very tight. Any manual cheque requires a counter signature by my director and he only does this with all the supporting paperwork in front of him

Q Excellent. Well, as I said, this is just a brief introduction. What my colleagues will do now is just have a look at a sample of the invoices paid this year.

A.20 That's all right – the same as last time. It's always ok.

Q Thank you, Gary.

6.1.2   Practicalities - scenarios

I asked Andrew Hill, a friend, to take the role of the auditee, Gary Smith. Andrew is a recently retired principal civil servant and very experienced amateur actor who has the practical work experience to recognise the Smith character and portray him effectively. My wife, who teaches English to foreign company directors and politicians and also directs plays, directed us and also ran the camera and DVD recording equipment. I read the off-camera part of the auditor, David Brown. Thanks are given to Andrew Hill, to my wife, and to the Linguarama Language School in Ditteridge, Bath, for the loan of their equipment and the use of the conference and DVD/recording facilities.

Five scenarios were found to cover the process effectively:

Scenario 1   Gary Smith's body language is as honest as possible.

Scenario 2   Gary Smith varies in two minor ways only; a slight pause during two answers, see [*] in the script above. No other changes from scenario 1. (Copies of the script handed to the students did not include this asterisk)

Scenario 3   Gary Smith's facial language varies – he demonstrates lack of eye contact, increased eye flicker, tension and over-relaxation of the mouth, false smiles, etc. No other changes from scenario 1.

Scenario 4   Gary Smith's body movements change; leg crossing, arm movements, nervous hands, etc. No other changes from scenario 1.

Scenario 5   Gary Smith fully displays his dishonesty; body and facial movements, hesitations, etc.

These scenarios were designed to be run in order, 1 to 5. The changes between each of the scenarios were minor and subtle. It would be interesting to note the reaction of observers if only scenario 5 were presented to them; in itself, would the auditee be viewed as honest without their incrementally-gained knowledge from observing scenarios 1 to 4?

It was also interesting to note how difficult the actor playing Gary Smith found it to change only one type of gesture without altering other gestures at the same time. Actors inevitably act with their whole body; it may well be that considerable training or practice

is required to undo an actor's propensity to act as a whole person. However, experienced fraudsters may have had this practice!

I found that a sixth scenario, as originally planned, would not have added anything new to the process. I also debated whether to not show scenario 2, but kept it as it enabled the observers to get used to the DVD-and-then-feedback process in which I was asking them to participate.

6.1.3   Practicalities – observers

Initially I planned to show the scenarios to a maximum of some 40 Cass students and audit practitioners only. This was not practical because of the timing of the availability of Cass students, and also because few Cass students had prior knowledge of audit work.   In addition, most students, potentially, were internal and not external auditors.   Interviews were therefore extended to four groups of students:

Table 6.1

Sample sizes – feedback on scenarios

AUDITING EXPERIENCE (Years)	*Group No. 1* Birmingham City Uni. students **Audit Day Release**	*Group No. 2* Glamorgan Uni. Students **Forensic accounting**	*Group No. 3* Birmingham City Uni. Students **Audit Block Release**	*Group No. 4* CASS Business Sch. Students **Mgt/audit**	*TOTAL*
nil	12	17	1	17	47
0+ to 2	2	0	9	1	12
2 to 5	0	0	3	0	3
6 to 10	1	0	2	0	3
11 to 15	1	0	0	0	1
16 and more	1	0	0	0	1
TOTAL	17	17*	15	18	67

* Of the 17 Glamorgan students, 8 had a Celtic background.

Initially, and as previously noted, I intended to show these scenarios to students and/or practising auditors. However, the practicalities of being able to show it to a viably large group of practising auditors were immense – not only would it be financially unviable for a group of practising auditors to take at least an hour of their time to participate in a

financially no-reward situation for them or their company, but they would have to commit extra cost and time to come together in a group of at least, say, 10 participants. I therefore went ahead with students only, but I also noted that from various studies, for example, see Remus (1986), Copeland, Francia and Strawser (1973), Bogumil and Franklin (1985) and Ashton and Kramer(1980), that this is a valid approach. However, I note that 30% of those students did have audit experience – see table 6.1.

Ashton and Kramer's paper compared a variety of student –v– 'professionals' for various experiments. These experiments also included the results of an earlier experiment by Ashton 1973 in which he compared the results of a hypothetical payroll examination by independent auditors and then, separately by graduate students. Ashton and Kramar concluded that "the results appeared to be very similar for the two subject groups"; independent auditors and students.

Similarly, Remus's paper found that in his comparison of the performance of experienced business managers against business students, "no significant difference was found between groups, indicating the validity of using master's level business students in simulations of managerial decision making".

This gives comfort to the validity of only using students, whether undergraduate or at masters level. My students were a mixture of undergraduate and master's level students.

6.1.4   Timing and feedback information

The proposal was to run the whole session with the students in 60 minutes. The intended format was: a brief introduction to the students; to then run scenario 1 and immediately obtain written qualitative and quantitative feedback from the students; to then run scenarios 2, then 3, then 4, and then 5, with qualitative and quantitative feedback obtained after each scenario. At the end of this process, a general sweep-up and Q&A discussion was to be held with the students. In practice, this worked very well but students usually requested a longer discussion at the end, so the four presentations each lasted from between 60 minutes and 100 minutes.

The five sets of written feedback were obtained using the forms reproduced on the next five pages. In each, the highlighted areas are where students were requested to complete data. These forms have been re-formatted to a smaller size and with a grey background, to fit into the layout of this thesis.

6.1.5 Layout

In this chapter I analyse the qualitative data results about the effectiveness, efficiency and honesty of an auditee in paragraphs 6.2, 6.3 and 6.4 respectively. In paragraph 6.5, I examine the students' qualitative feedback, and, in paragraph 6.6, I look at feedback after all the scenarios and whether a fraud investigation is now recommended. In paragraph 6.7 I look at general feedback and consider areas for further research, and I finish this chapter with summary and conclusions in paragraph 6.8.

Picture of the auditee, Gary Smith, played by Andrew Hill.
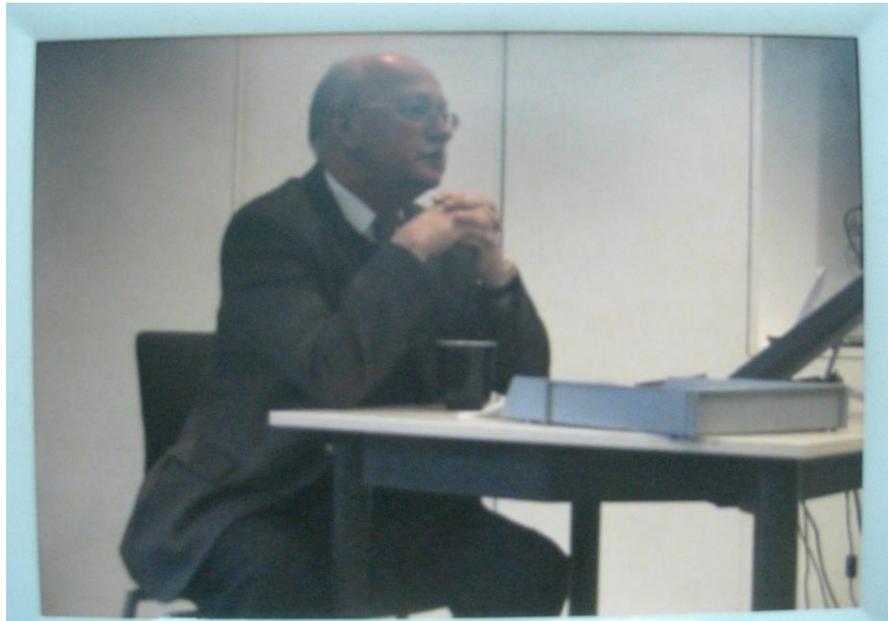
How many years of audit experience have you? Please circle one: None < 2 2-5 6-10 10-15 > 15

Scenario 1

Bearing in mind that, from previous audits, we believe that Gary Smith operates his section effectively, efficiently and honestly, did you see anything in that interview to make you doubt that in any way?

First Impressions only please:	*Please say in each box how many of the answers fit this impression of Gary Smith*		
Your Impression	**Effective**	**Efficient**	**Honest**
Gary Smith is totally			
Gary Smith is probably totally			
I am undecided if Gary Smith is			
Gary Smith is not very			
Gary Smith is definitely not			
TOTAL ANSWERS	**20**	**20**	**20**

Any Comments?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

Monitoring Information   **Scenario 2**   **Name** …………………………….

Bearing in mind that, from previous audits, we believe that Gary Smith operates his section effectively, efficiently and honestly, did you see anything in that interview to make you doubt that in any way?

First Impressions only please: *Please say in each box how many*
                                           of the answers fit this impression
                                           of Gary Smith

Your Impression	**Effective**	**Efficient**	**Honest**
Gary Smith is totally			
Gary Smith is probably totally			
I am undecided if Gary Smith is			
Gary Smith is not very			
Gary Smith is definitely not			
TOTAL ANSWERS	**20**	**20**	**20**

Any Comments?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Monitoring Information   **Scenario 3** **Name** ………………………………….

First Impressions only please: *Please say in each box how many*
of the answers fit this impression
of Gary Smith

Your Impression	**Effective**	**Efficient**	**Honest**
Gary Smith is totally			
Gary Smith is probably			
I am undecided if Gary Smith is			
Gary Smith might not be			
Gary Smith is definitely not			
TOTAL ANSWERS	20	20	20

What facial movements, if any, give you concern about Smith's effectiveness, efficiency and honesty?

<u>On a scale of 3 to 1:</u>
3 = considerable concern
2 = some concern
1 = no concern

	Effectiveness	Efficiency	Honesty
Eye movements:			
- Looking away			
- Poor eye contact with interviewer			
- Frequent blinking			
- Eye twitches			
- Looking up			
- Looking down to left			
- Looking down to right			
Mouth			
- Both sides turning up			
- One side only turning up			
Face muscles			
- Tensing			
- Immovable			

Are there any other observations of Smith's facial language that you'd like to mention?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

Monitoring Information   **Scenario 4** **Name** <mark>………………………………….</mark>

<u>First Impressions</u> only please: *Please say in each box how many*
of the answers fit this impression
of Gary Smith

Your Impression	**Effective**	**Efficient**	**Honest**
Gary Smith is totally			
Gary Smith is probably			
I am undecided if Gary Smith is			
Gary Smith might not be			
Gary Smith is definitely not			
TOTAL ANSWERS	20	20	20

What body movements, if any, give you concern about Gary Smith's effectiveness, efficiency and honesty?

<u>On a scale of 3 to 1:</u>
 3 = considerable concern
 2 = some concern
 1 = no concern

	Effectiveness	Efficiency	Honesty
Leg movements:			
- Crossed at ankle			
- Planted squarely on floor			
- Twitching			
Arm movements			
- Crossed			
- Expansive			
- Twitching			
Body posture			
- Relaxed			
- Tense			
Body muscles			
- Tensing			
- Immovable			

Are there any other observations of Smith's facial body language that you'd like to mention?

<mark>……………………………………………………………………………………………</mark>

<mark>……………………………………………………………………………………………</mark>

<mark>……………………………………………………………………………………………</mark>

Monitoring Information   Scenarios 1-5   Name ……………………………………..

From all the information the auditor originally obtained from his file, Gary Smith is an efficient, effective, honest member of staff. Only a cursory audit is required.

Having seen these five interviews, is that still your impression? *Please circle one* Yes   No

If No, what are your concerns?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Would you consider a full fraud investigation should be carried out on Gary Smith's work? Yes   No

Please only answer these sections if you are an auditor.

Without any further supporting data, would you:

-        ask your Head of Audit for an increase in the audit time allowable in this area? Yes   No

-        carry out your proposed audit work in a different way, for example, concentrating on different areas more than others, and if so, what areas?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

If you were planning your audit department's training, what percentage of that training, if any, do you feel could be justified in providing training on behavioural auditing? ……%

If you were planning your audit department's training, what percentage of that training, if any, do you feel could be justified in providing training on the interpretation of facial and body language? ……%

Any final feedback, please.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

6.2   Findings about effectiveness

6.2.1   Information obtained analysed by scenario and sub-analysed by degree of effectiveness

Figure 6.1 shows students' perception of how effective the auditee was in his day-to-day work as gained by observing scenarios 1 to 4.   The data categorises the perception of effectiveness on a five-point scale from 'Totally Effective' to 'Definitely Not Effective'.
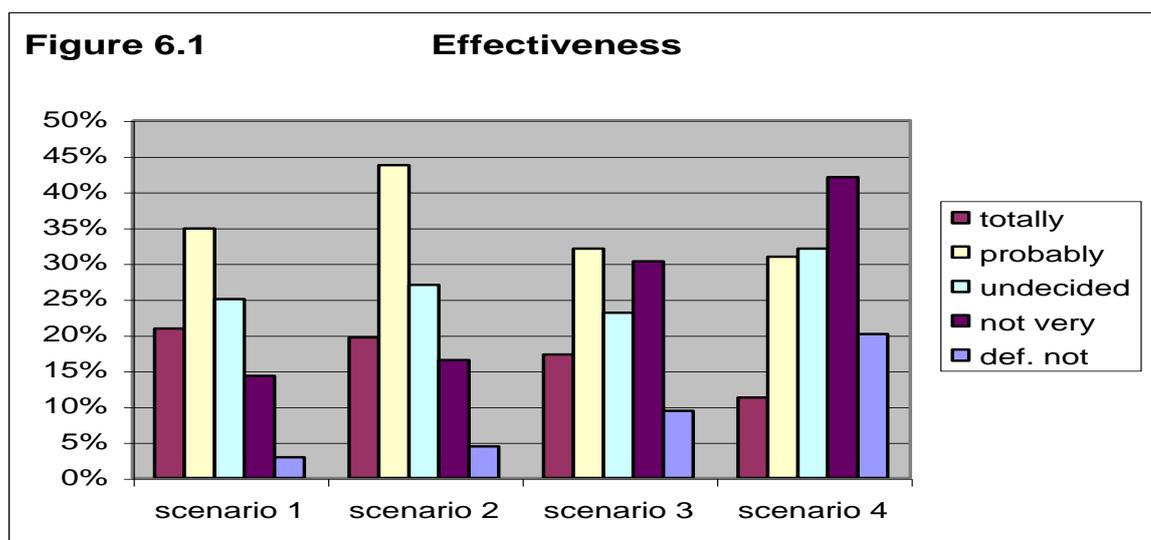
The results show the gradual reduction of the perception that the auditee was 'Totally Effective', from 21% in scenario 1 through to 11% in scenario 4.   Conversely, the auditee is perceived to be 'Totally Non-Effective' by 3% of students in scenario 1, increasing to 20% of students in scenario 5. By student groups the statistics are:

Table 6.2

Effectiveness – by degree of effectiveness - data/results

Scenario	Totally Effective					Neither effective nor ineffective					Definitely not effective				
	Av. Total	% by Student group				Av. Total	% by Student group				Av. Total	% by Student group			
		1	2	3	4		1	2	3	4		1	2	3	4
1	21%	25	15	31	15	25%	18	20	25	28	3%	3	10	3	4
2	20%	21	13	21	2	27%	18	23	27	53	4%	4	1	6	7
3	17%	17	15	23	20	23%	10	21	34	27	9%	5	6	11	4
4	11%	13	10	10	3	32%	15	20	23	33	20%	15	15	14	17

These results clearly illustrate the belief by students that the more they see of the auditee scenario by scenario, the more they consider that his "progressively worsening" body language, and that this progressively shows that the auditee is really less effective than initially thought. As the body language was primarily designed to test the auditee's honesty, it is interesting to note that not only is the honesty but also the effectiveness of the auditee questioned; the initial lack of honesty causes the students to question the auditee's effectiveness.

There are statistical variations between each of the student groups. Proportionally, group 4 students, those studying at Cass, were the most critical. I also wonder whether these particular London-based students were more "streetwise" than their Birmingham-based or Glamorgan-based counterparts. This is an area for further research using a much bigger sample size and also, perhaps, including such data as ethnic background, salary, years of business-based work, etc.

6.2.2   Information obtained analysed by degree of effectiveness and sub-analysed by scenario

Figure 6.2   **Effectiveness**

1 - totally effective, to 5 - totally ineffective
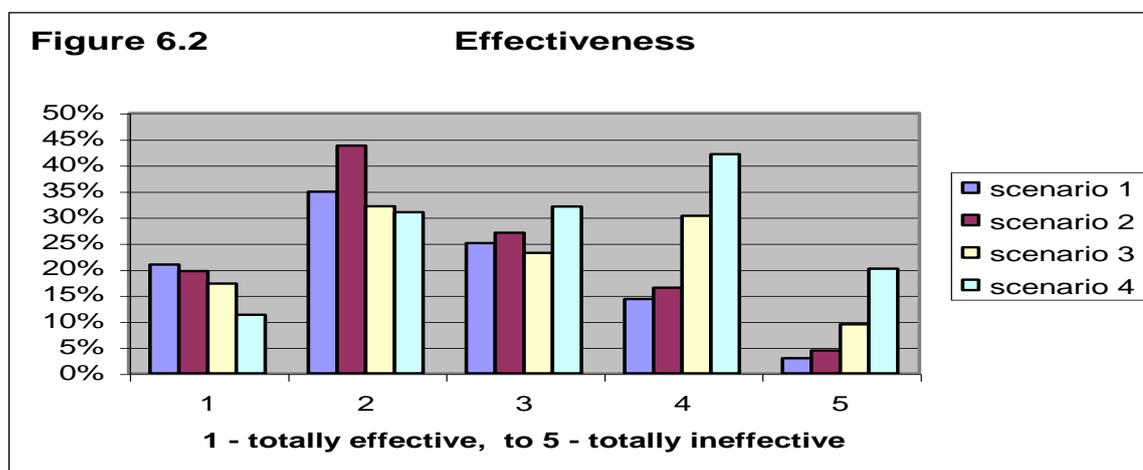
These statistics show that the students tended to avoid either of the 'Effective' or 'Totally Ineffective' options, perhaps erring to the safer choices of (2) 'Probably Effective', (3) 'Undecided', or (4) 'Not Very Effective'. There is a clear swing from (1) 'Effective' to (5), 'Not Effective' as the scenarios are rolled out.

6.2.3   Information obtained analysed by audit experience of students

In my sample, 30% of students have had previous audit experience.

Table 6.3

Effectiveness – by audit experience

Experience (years)	No. in sample	% in sample
nil	47	70
0+ to 2	12	18
2 to 5	3	4½
6 to 10	3	4½
11 to 15	1	1½
16 and more	1	1½
TOTAL	67	100%

Whilst the other findings in this chapter have fully demonstrated the initial propositions, the quality and interest of this "scenario" analysis is such that research will continue and the opportunity will be then taken to enlarge the population of more experienced students and practitioners sampled.

Analysis by experience can most conveniently be demonstrated in the format used in 6.2.2 above, and two of the four scenarios have been chosen to demonstrate this:

Figure 6.3   Effectiveness - experience in years
Scenario 1

Figure 6.4   Effectiveness - experience in years Scenario 4
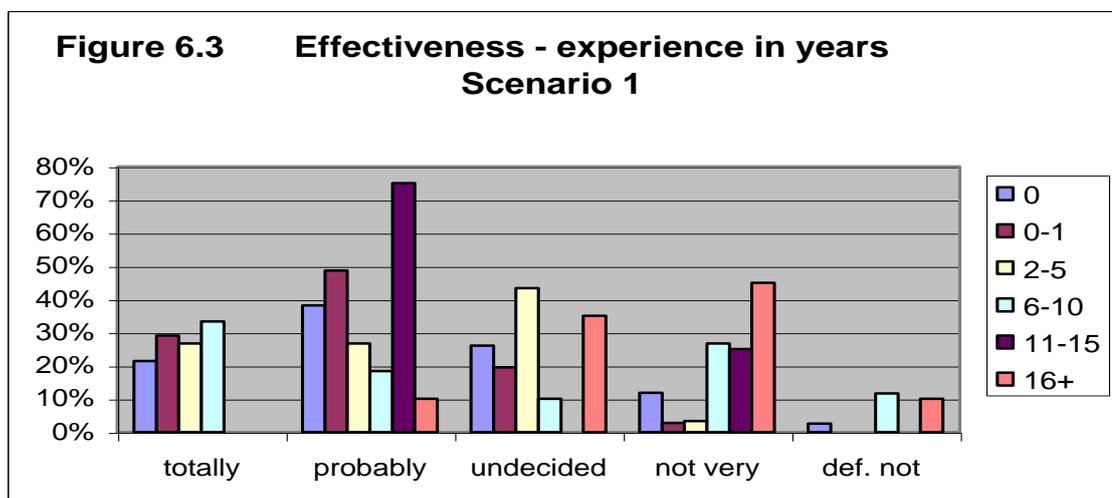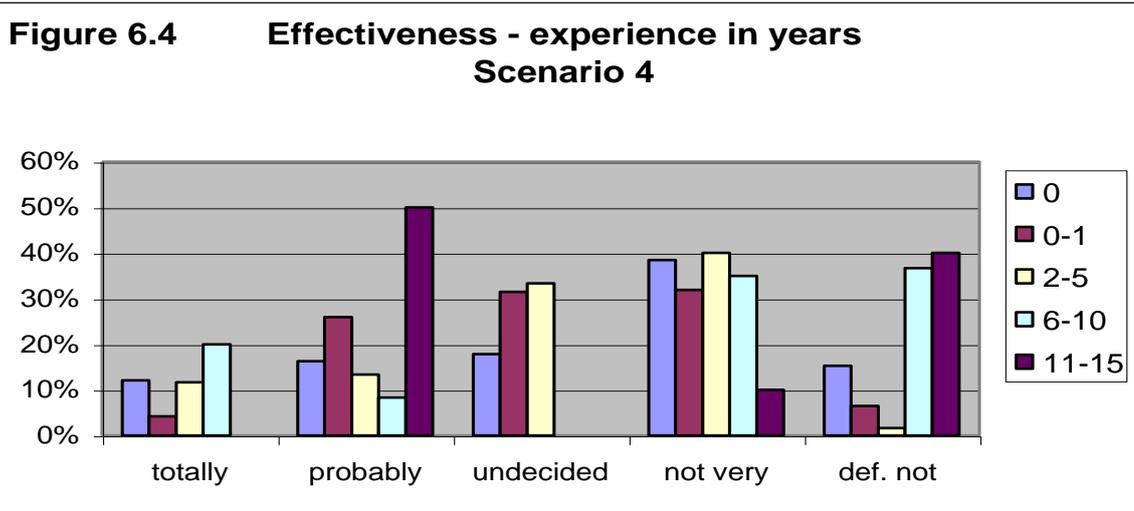
These both illustrate that, perhaps predictably, the more experienced students/ practitioners are more cynical about the effectiveness of the auditee.

6.2.4   Analysis of questions specifically analysing facial and body movements

After scenarios 3 and 4, specific questions were posed about the auditee's facial and body movements. These were:

Scenario 3	On a scale of 3 to 1: 3 = considerable concern 2 = some concern 1 = no concern		
Eye movements:	Effectiveness	Efficiency	Honesty
- Looking away			
- Poor eye contact with interviewer			
- Frequent blinking			
- Eye twitches			
- Looking up			
- Looking down to left			
- Looking down to right			
Mouth			
- Both sides turning up			
- One side only turning up			
Face muscles			
- Tensing			
- Immovable			

Scenario 4		On a scale of 3 to 1: 3 = considerable concern 2 = some concern 1 = no concern		
		Effectiveness	Efficiency	Honesty
Leg movements:				
- Crossed at ankle				
- Planted squarely on floor				
- Twitching				
Arm movements				
- Crossed				
- Expansive				
- Twitching				
Body posture				
- Relaxed				
- Tense				
Body muscles				
- Tensing				
- Immovable				

The results of this feedback are given in the four figures, **6.5, 6.6, 6.7 and 6.8,** below:

Ratio of replies determining effectiveness — eyes 36%, mouth 27%, face 37%

Effectiveness — eyes, mouth, face

Ratio of replies determining effectiveness — legs 29%, arms 36%, body 35%

Effectiveness — legs, arms, body
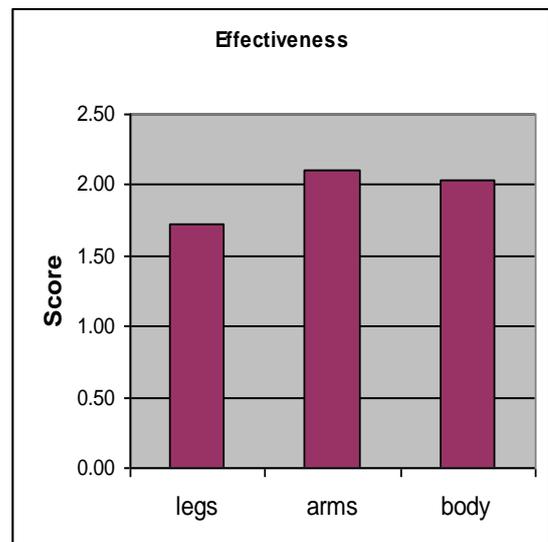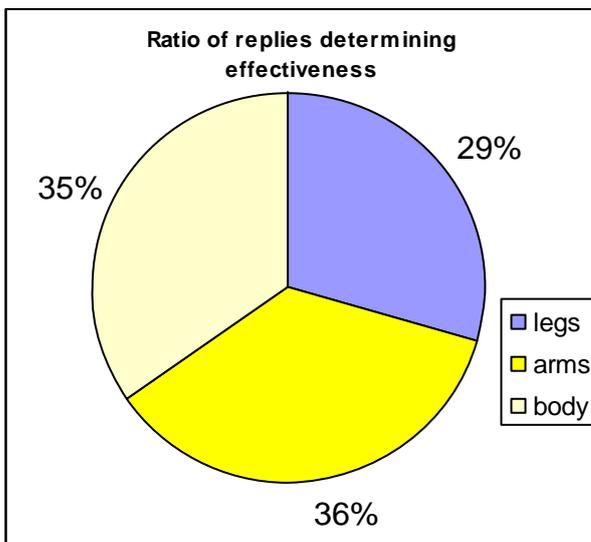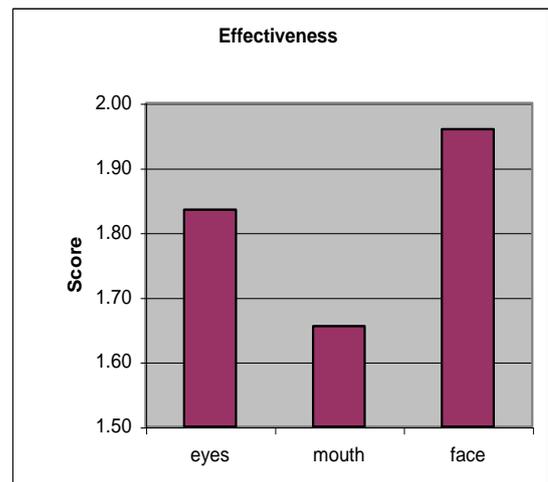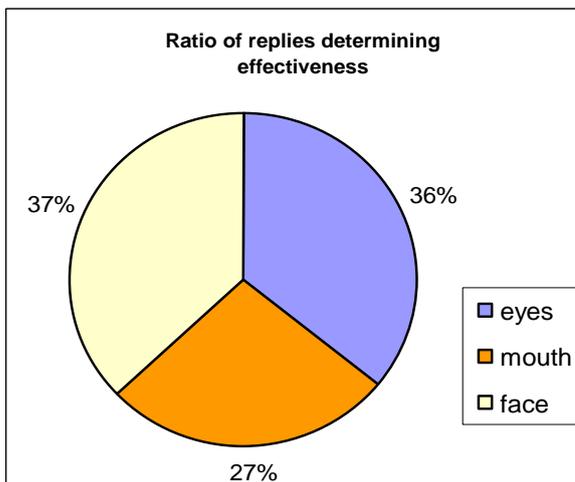
They show that students concentrated on the general facial feedback, yet this quantitative result is in contrast to the qualitative feedback in which students talked more about the eyes than any other specific facial feature. On the DVDs it may just have been that the face was the easiest feature on which to hone in.

Similarly, the results for quantitative feedback on the auditee's body movements were not conclusive.

6.2.5 Effectiveness and audit experience – T. Tests

I analysed the mean and standard deviation between students with audit experience and those with no audit experience, and for each scenario. The results, which are given below in Table 6.4 show that there is no statistical significance between the experienced and the non-experienced student, with the only real change expressed by non-experienced students after scenario 3.

<div align="center">

Table 6.4
Effectiveness. Standard deviation; audit experience – v – no audit experience

</div>

Scenario	Experience	N	Mean	Std. Dev.	Std. error mean
1	None	235	3.8809	4.96598	0.32394
	Some	100	4.0000	5.70486	0.57049
2	None	235	3.8766	5.14301	0.33549
	Some	100	3.7700	5.64050	0.56405
3	None	235	6.9149	5.37416	0.35057
	Some	100	3.8000	5.34784	0.53748
4	None	235	4.0851	6.17145	0.40258
	Some	100	3.7600	5.40878	0.54088

6.3 Findings about efficiency

6.3.1 Information obtained analysed by scenario and sub-analysed by degree of efficiency

The figure below shows students' perception of how efficient the auditee was in his day-to-day work as gained by observing scenarios 1 to 4. The data categorises the perception of efficiency on a five-point scale from 'Totally Efficient' to 'Definitely Not Efficient'.
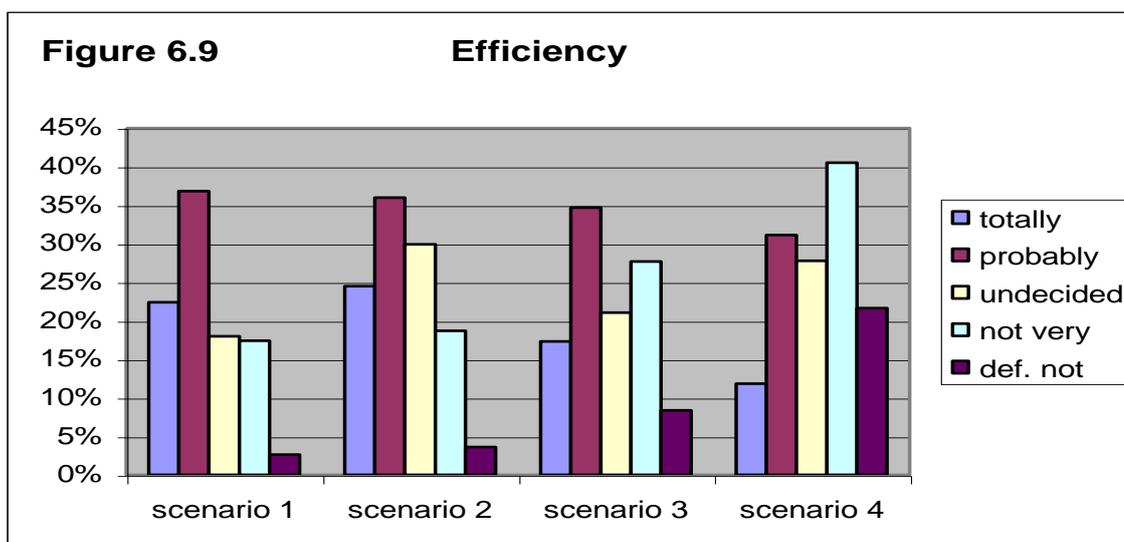
The results show the gradual reduction of the perception that the auditee was 'Totally Efficient', from 22% in scenario 1 through to 12% in scenario 4. Conversely, the auditee is perceived to be 'Totally Inefficient' by 3% of students in scenario 1 increasing to 22% of students in scenario 5. By student groups the statistics are:

Table 6.5

Efficiency – data/results

Scenario	*Totally Efficient*					*Neither efficient nor inefficient*					*Definitely not efficient*				
	Av. Total	*% by Student group*				*Av. Total*	*% by Student group*				*Av. Total*	*% by Student group*			
		1	*2*	*3*	*4*		*1*	*2*	*3*	*4*		*1*	*2*	*3*	*4*
1	*22%*	*24*	*24*	*27*	*15*	*18%*	*13*	*15*	*24*	*21*	*3%*	*6*	*2*	*5*	*15*
2	*24%*	*21*	*22*	*31*	*22*	*30%*	*17*	*32*	*24*	*18*	*4%*	*1*	*1*	*5*	*14*
3	*17%*	*17*	*10*	*24*	*24*	*21%*	*9*	*21*	*29*	*30*	*8%*	*4*	*7*	*10*	*18*
4	*12%*	*15*	*2*	*9*	*8*	*28%*	*15*	*24*	*15*	*18*	*22%*	*0*	*3*	*4*	*15*

Unlike the clear pattern produced by the effectiveness results in 6.2.1, these results are more variable. Those 3% of students who, at an early stage (ie: in scenario 1), found the auditee to be 'Totally Inefficient', had incrementally increased to 22% by Scenario 4. Moreover, with a slight variation in scenario 2, those 22% of students who initially found the auditee 'Totally Efficient', reduced to 12% at the end of scenario 4.

However, Group 4, Cass students, are notably more cynical about the auditee's lack of efficiency. Again, I question whether these particular London-based students were more "streetwise" than their Birmingham-based or Glamorgan-based counterparts. This is an area for further research using a much bigger sample size and also, perhaps, including such data as ethnic background, salary, years of business-based work, etc.

Finally, in each of scenarios 1, 2 and 3 – see table 6.5 - more students said that the auditee was probably 'Efficient' as opposed to 'Totally Efficient'. This is noted; no specific reason is ascribed.

Table 6.6
Efficiency – by audit experience

	Sc1	Sc2	Sc3
Totally efficient	22%	24%	17%
Probably efficient	37%	36%	35%
Undecided	18%	30%	21%
Probably inefficient	17%	19%	28%
Definitely inefficient	6%	4%	8%

6.3.2 Information obtained analysed by degree of efficiency and sub-analysed by scenario.

Figure 6.10 Efficiency
1- totally efficent, to 5 - totally inefficient
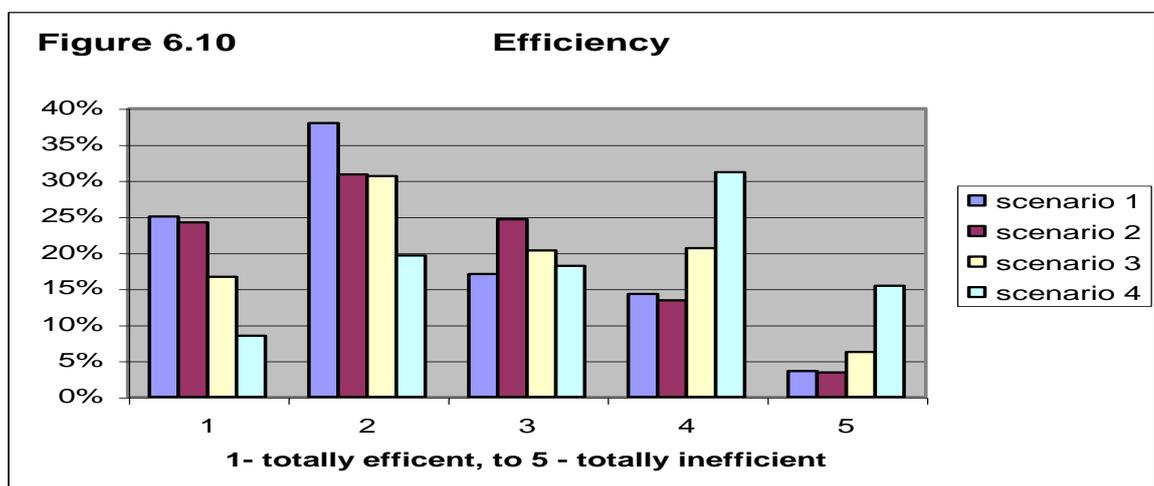
These statistics show a clear swing from (1) 'Efficient' to (4), 'Not Very Efficient' as the scenarios are rolled out. Again, as with the effectiveness statistics, there is a tendency for students to concentrate on the middle three choices they were given, and to avoid the 'Totally Efficient' or 'Totally Inefficient' options.

6.3.3 Information obtained analysed by audit experience of students

In my sample, 30% of students had previous audit experience.

Table 6.7

Summary of table 6.1 – sample sizes

Previous audit Experience	*No. in sample*	% in sample
None	47	70
Some	20	30
TOTAL	67	100%

Whilst the other findings in this chapter have fully demonstrated the initial propositions, the quality and interest of this scenario-analysis is such that I recommend that research should continue and should take the opportunity to enlarge the population of more experienced students and practitioners sampled – see chapter 7.

Analysis by experience can, again, most conveniently be demonstrated in the format used in 6.3.2 above, and two of the four scenarios have been chosen to demonstrate this:

Figure 6.11 Efficiency - experience in years Scenario 1
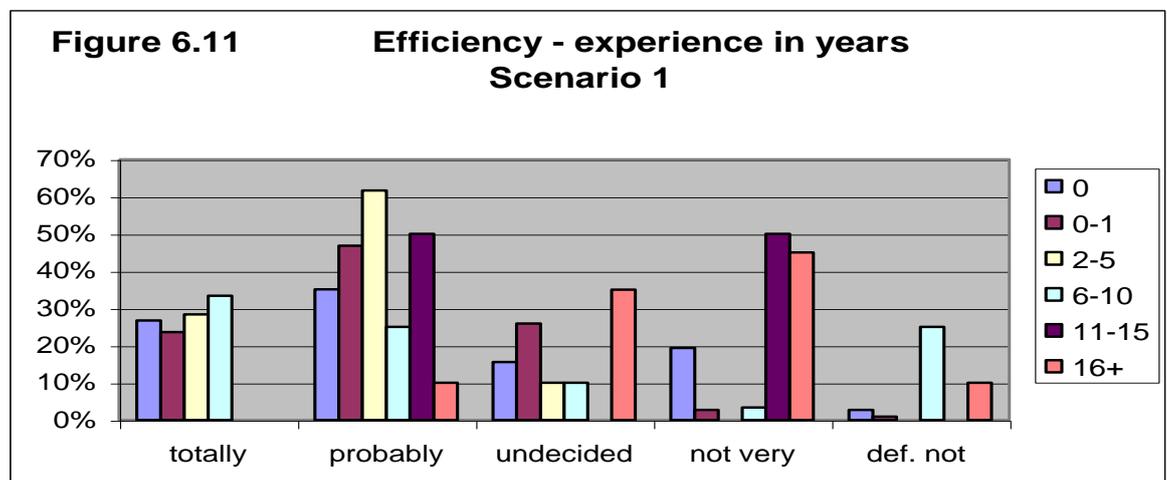
**Figure 6.12   Efficiency - experience in years
Scenario 4**
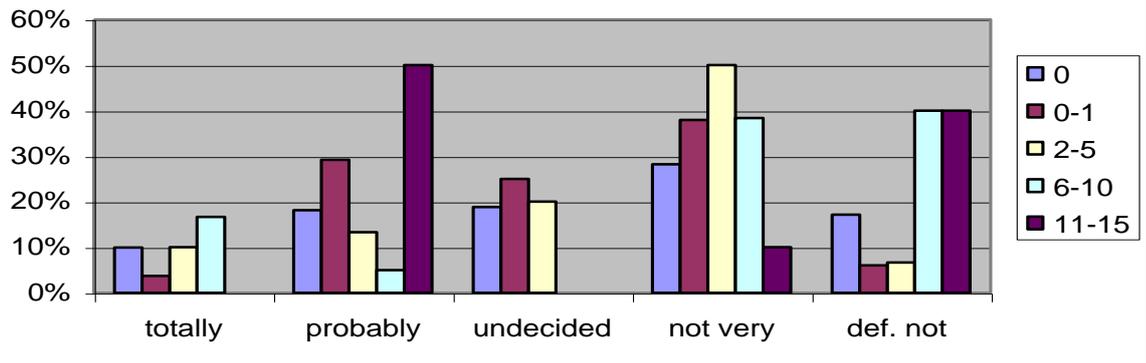
These both illustrate that, as perhaps expected, the more experienced students / practitioners are more cynical about the efficiency of the auditee.

6.3.4   Analysis of questions specifically analysing facial and body movements

After scenarios 3 and 4, specific questions were posed about the auditee's facial and body movements. The questions and their marking scheme are given in 6.2.4 above. The results of this feedback are given in **Figures 6.13 and 6.14, and 6.15 and 6.16** below:
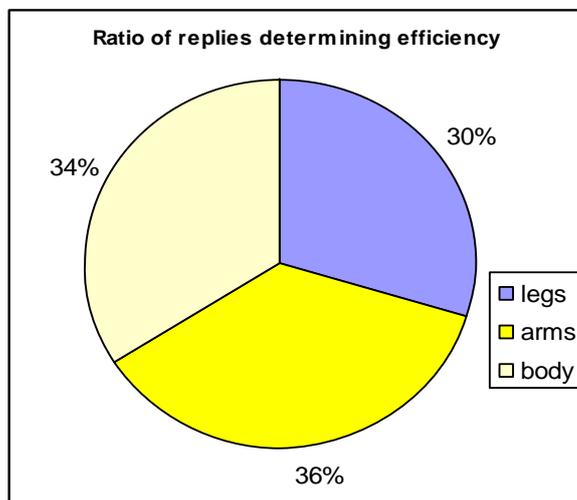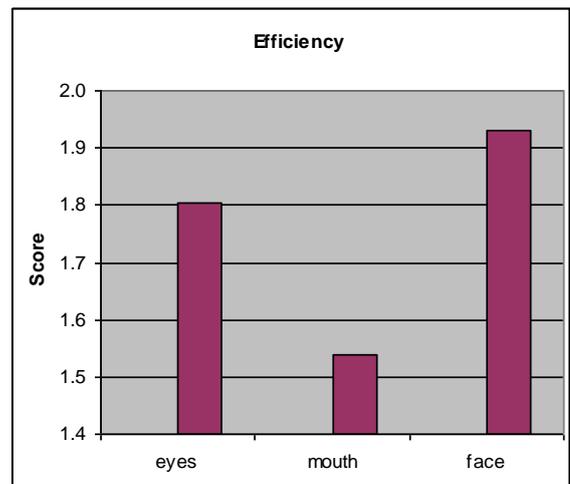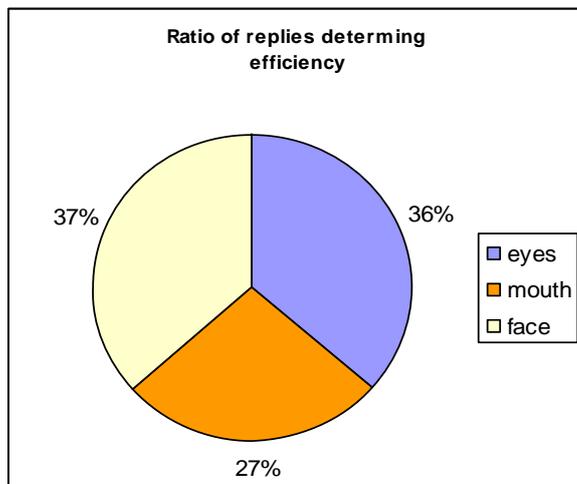
These results show that students honed in on the general facial feedback, yet this quantitative result is in contrast to the qualitative feedback in which students talked more about the eyes than any other specific facial feature. On the DVDs it may just have been that the face was the easiest feature on which to concentrate.

Similarly, the results for quantitative feedback on the auditee's body movements were not conclusive.

6.3.5   Efficiency and audit experience – T. Tests

I analysed the mean and standard deviation between students with audit efficiency and those with no audit experience, and for each scenario. The results, which are given below in Table 6.8 show that there is no statistical significance between the experienced and the non-experienced student, with the only real change expressed by non-experienced students after scenario 3.

Table 6.8
Efficiency. Standard deviation; audit experience – v – no audit experience

Scenario	Experience	N	Mean	Std. Dev.	Std. error mean
1	None	235	3.848	5.34473	0.64865
	Some	100	3.9800	6.07691	0.60769
2	None	235	3.9617	5.35838	0.34954
	Some	100	3.7600	5.78595	0.57859
3	None	235	3.7660	5.0991	0.33268
	Some	100	3.8000	5.45135	0.54513
4	None	235	3.9234	6.42598	0.41918
	Some	100	3.8000	5.19712	0.51971

6.4 Findings about honesty.

The main purposes of this scenario-based research were to obtain feedback from observers about the potential honesty of an individual being questioned by an auditor, and whether such observations could be used to assist auditors in their future work.

6.4.1 Information obtained analysed by scenario and sub-analysed by degree of honesty

Figure 6.17 below shows the students' perception of how honest the auditee was in his day-to-day work as gained by observing scenarios 1 to 4.

Figure 6.17   Honesty
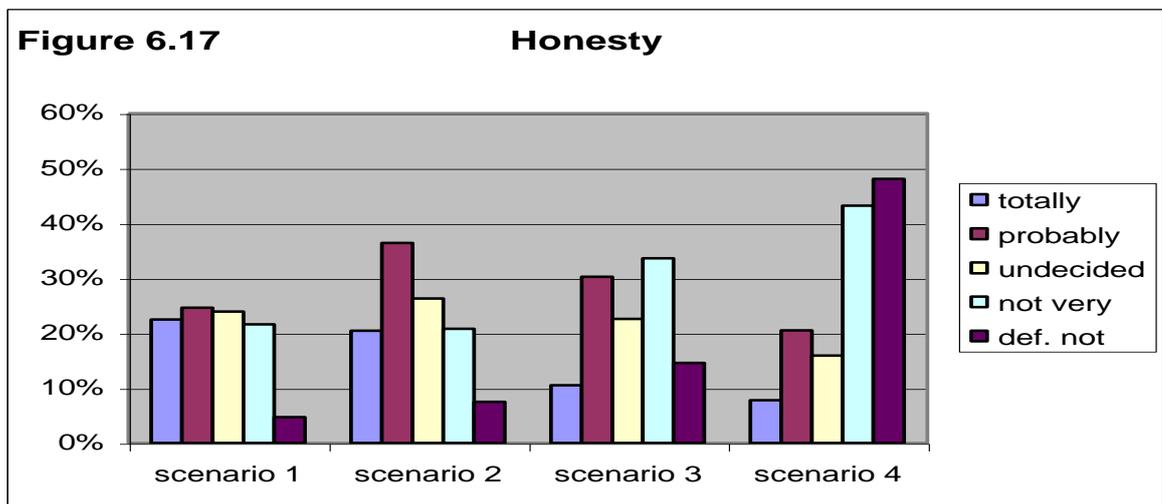
The underlying data figures are also given in table 6.9. The clearest data is at both ends of the degree-of-honesty spectrum; those students who initially considered the auditee to be 'Completely Honest', 22%, progressively reduced to 8% at the end of the fourth scenario. Conversely, the 5% of students who initially though the auditee to be 'Completely Dishonest' had incrementally increased to 48% at the end of scenario 4.

Table 6.9
Honesty – by degree of honesty data/results

Scenario	Group	How honest is the auditee?				
		Totally	**Probably**	**Undecided**	**Not very**	**Definitely Not**
1	Total	22%	25%	24%	22%	5%
	1	23%	37%	15%	20%	2%
	2	12%	23%	39%	15%	6%
	3	47%	22%	19%	7%	5%
	4	11%	16%	22%	5%	5%
2	Total	20%	36%	26%	21%	8%
	1	11%	38%	16%	24%	5%
	2	14%	37%	22%	20%	2%
	3	38%	22%	27%	8%	8%
	4	22%	25%	24%	22%	5%
3	Total	11%	30%	23%	34%	15%
	1	17%	24%	11%	23%	4%
	2	6%	29%	14%	37%	9%
	3	14%	35%	18%	20%	12%
	4	20%	36%	26%	21%	8%
4	Total	8%	21%	16%	43%	48%
	1	12%	18%	7%	28%	33%
	2	2%	8%	6%	26%	49%
	3	7%	27%	16%	23%	28%
	4	7%	17%	9%	29%	37%

The data for all students together clearly demonstrates that when an auditor is asked to observe an auditee critically, they can identify from body language alone when an auditee is dishonest. The actual words were said by the auditee did not vary; thus, on the spoken evidence, the auditee would not have concluded that there was any underlying fraud.

Although body language of itself is not reason enough to determine if further audit work should be carried out in an area to be audited, it is another tool in the armoury that enables an auditor to find problems and thus improve a company's effectiveness and efficiency.

Also, as seen in section 6.2 and 6.3 above, interpretation of an auditee's body language can be used to indicate potential effectiveness and/or efficiency issues.

The statistics for each group of students show considerably wider variation than taken as a total population. In table 6.9, the highest percentage incident per group per scenario and per degree of belief of the auditee's honesty has been highlighted. By scenario 4, all groups agreed that the auditee was totally dishonest. Most groups felt during scenarios 2 and 3, that the auditee was probably honest, but in scenarios 1 and 2, group 3 (Birmingham block release students) thought the auditee to be more honest than the average. The widest variation group-to-group was in scenario 1, which I attribute to the students getting used to what the whole DVD / scenario process was. I mentioned earlier that I considered not running scenario 2 as there was little difference between it and scenario 1. However, this data persuades me that to recommend in future research that scenario 1 should be run as the introduction, and then scenarios 2, 3, 4 and 5 will enable the most meaningful findings to be obtained.

6.4.2 Information obtained analysed by degree of honesty and sub-analysed by scenario
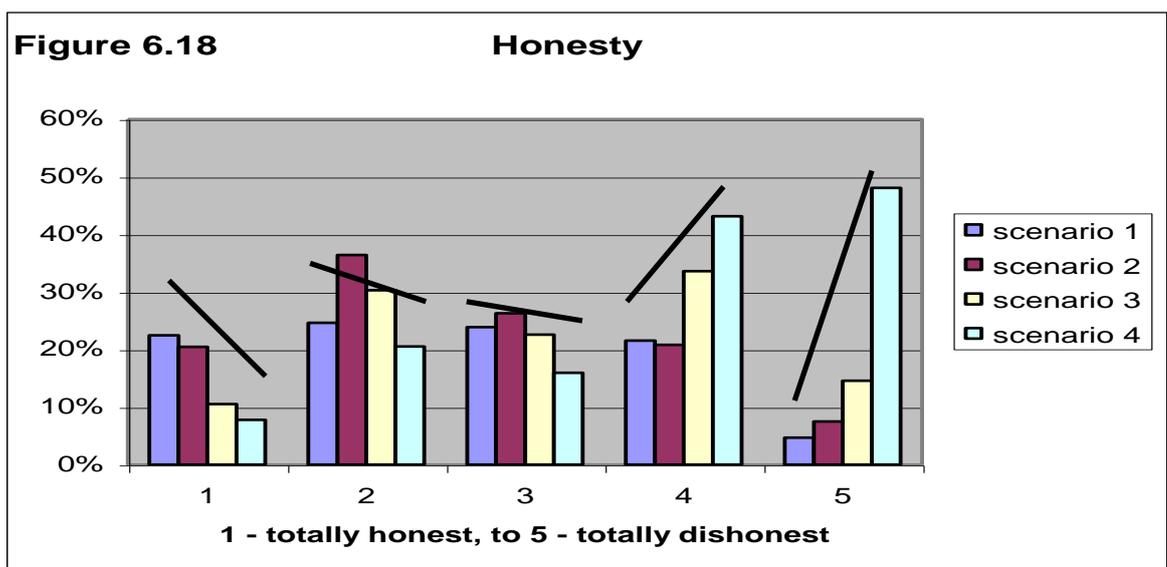
Figure 6.18   Honesty

Figure 6.18 is included for completeness and illustrates the information given in paragraph 6.4.1 grouped by the students' opinion of the auditee's degree-of-honesty. The angle of the top line in each of the four groups shows how the students' average perception changed over successive scenarios.

6.4.3   Information obtained analysed by audit experience of students

As noted in 6.2.3, table 6.3 (which is copied across), 30% of the students had prior audit experience. It is envisaged that body language can and should be taught to students new to audit, and, as such, this percentage is an appropriate sample percentage to identify the advantages of future *teaching* of the interpretation of body language. However, my recommended future research suggests an enlarged population size, and will thus obtain feedback from further experienced auditors.

Table 6.3

Experience (years)	*No. in sample*	% in sample
nil	47	70
0+ to 2	12	18
2 to 5	3	4½
6 to 10	3	4½
11 to 15	1	1½
16 and more	1	1½
TOTAL	67	100%

The analysis of the perception of the auditee's honesty analysed by audit experience given in **Figures 6.19, 6.20, 6.21 and 6.22** below.
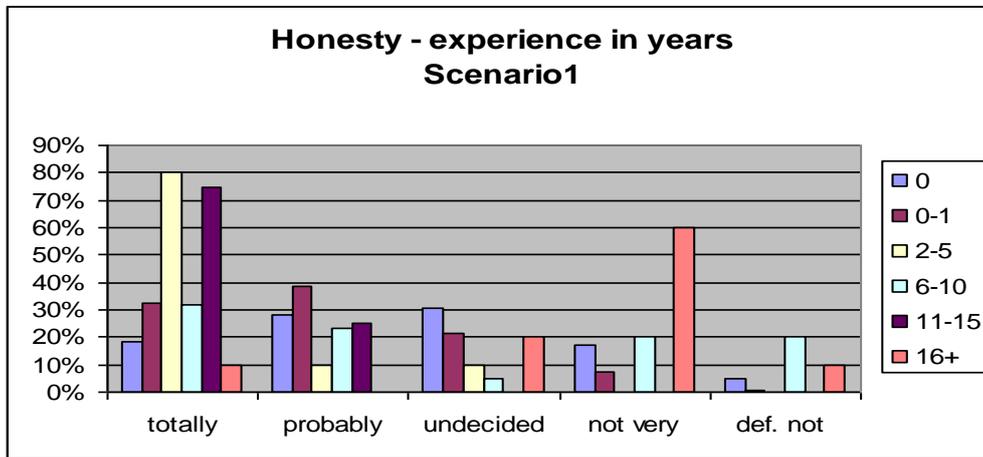
Figure 6.19
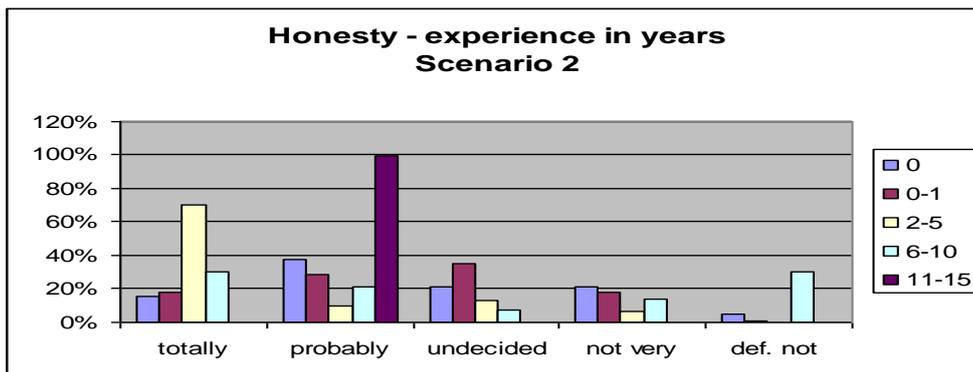
Figure 6.20
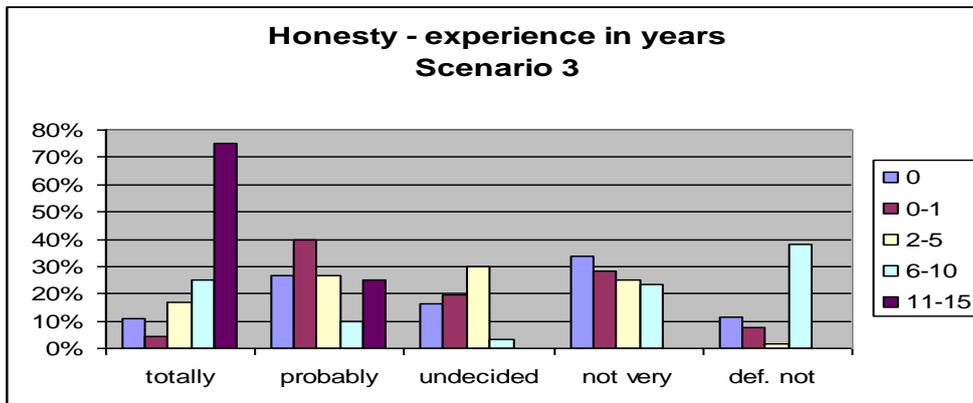
Figure 6.21
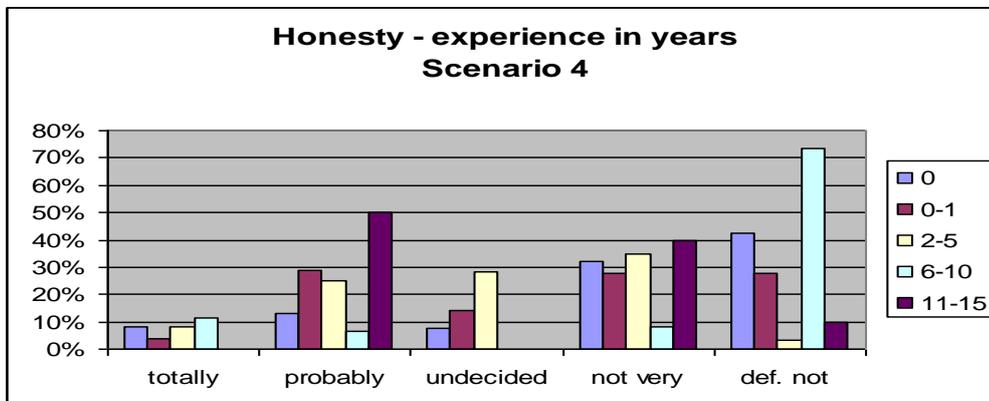
Figure 6.22

Figures 6.19 to 6.22 indicate that, as expected:

- Those students with more audit experience have stronger opinions about the lack of honesty of the auditee than those with less experience, and

- (with one exception, namely the one auditee with 11 to 15 years experience), students with no experience are more 'gullible' than those with.

6.4.4 Analysis of questions specifically analysing facial and body movements

The questions posed to specifically analyse facial and body language are given in paragraph 6.2.4 above. The scores in the diagrams below were obtained from feedback

Figure 6.23   Honesty

Figure 6.24   Honesty
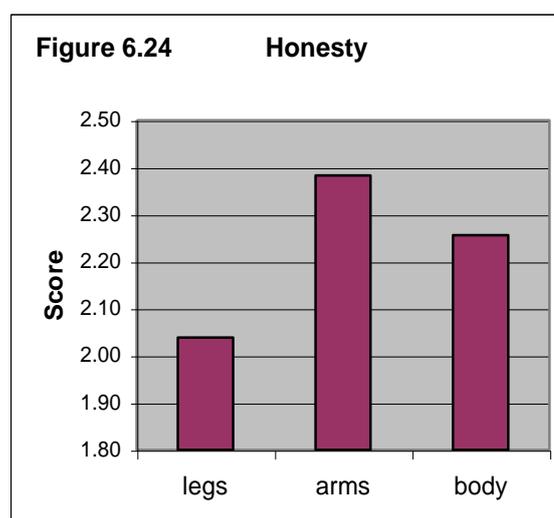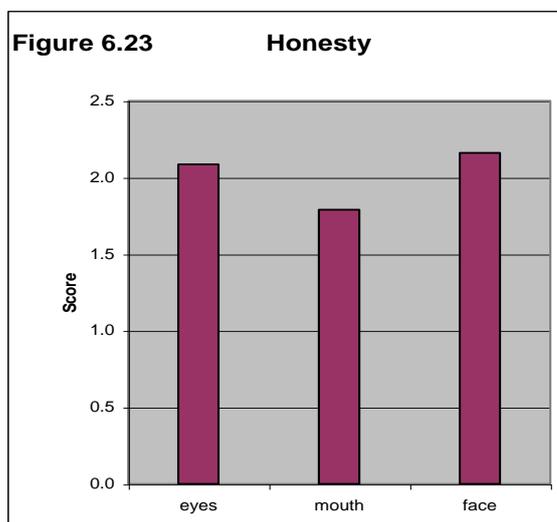
after scenario 3 (facial movements – figure 6.23) and scenario 4 (body movements – figure 6.24). They are the average of the students' scores on a scale of 1 to 3. Students gave a '1' if they had 'No concern' about the meaning of a facial or body movement with regard to the auditee's honesty, a '2' if they had 'Some concern,' or a '3' if they had 'Considerable concern'.

There is little differentiation in the facial results. This was an unexpected result as the feedback given in chapter 5 identified that most auditors considered eye movements the most important of the facial factors indicating an auditee's honesty. It may be that the students could not see the auditee's eyes on the lecture-room screen clearly enough. More research is recommended to see if this unexpected result is because of this, or whether students' perception of what they look for – eye movements and lack of eye contact as an

indicator of dishonesty - is different in practice. A further area recommended for research is the ethnic background of a student and if, in a student's particular background, eye contact is considered less important than in standard Anglo-Saxon culture.

The analysis from the feedback of body movements re-enforces the feedback given in chapter 5, that inappropriate arm movements/gestures/shrugs/etc do provide indication to an auditor that an auditee may not be truthful in an interview.

6.4.5   The Celtic-background question

In paragraph 4.8.1, I noted that auditors who had a Celtic background assumed that their instinct about an auditee should be used to assist their audit work. Group 2 students were from Glamorgan University and of those 17 students, 8 had a Welsh background.

An analysis of their responses marginally shows that, when expressing a neutral or negative opinion about the auditee's honesty, and for scenarios 1, 2 and 3, students with a Welsh background did have more emphatic opinions than those from a non-Welsh background, see table 6.8 below.

Table 6.10

Celtic perception

How Honest? (%)	Scenario 1			Scenario 2			Scenario 3			Scenario 4		
		Celtic?			Celtic?			Celtic?			Celtic?	
	All	No	Yes	All	No	Yes	All	No	Yes	All	No	Yes
Totally	12	13	13	14	14	15	6	11	2	2	3	1
Probably	23	33	14	37	54	22	29	18	41	8	9	7
Undecided	39	35	46	22	16	30	14	11	18	6	8	4
Probably not	15	16	14	20	14	28	37	43	29	36	34	42
Definitely not	6	0	14	2	0	5	9	8	11	49	58	46

Again, I did not expect this result. I am uncertain about what it says or whether I accept it, but in-depth research on the ethnic backgrounds of auditees is now indicated.

6.4.6 Honesty and audit experience – T. Tests

I analysed the mean and standard deviation between students with audit experience and those with no audit experience, for each scenario. The results, which are given below in Table 6.10, show that there is no statistical significance between the experienced and the non-experienced student.

Table 6.11
Honesty. Standard deviation; audit experience – v – no audit experience

Scenario	Experience	N	Mean	Std. Dev.	Std. error mean
1	None	235	3.8426	5.46597	0.35656
	Some	100	4.0000	6.00841	0.60084
2	None	235	3.8894	5.26930	0.34373
	Some	100	3.7800	3.79721	0.57972
3	None	235	3.8894	5.24246	0.34198
	Some	100	3.8000	5.44949	0.54495
4	None	235	4.0383	5.85825	0.38215
	Some	100	3.7800	5.38906	0.53891

6.5   Qualitative results

Paragraph 6.1 described the process of designing, and then showing five scenarios to a population of 67 students. The quantitative results from these scenarios are described in detail in paragraphs 6.2 to 6.4, and qualitative analysis and findings are given below

One specific question was posed at the end of scenarios 1 to 4, and three questions were posed at the end of scenario 5, specifically:

Q1   *"Any comments?"*

Q2   *"Any comments?"*

Q3   *"Are there any other observations of Smith's facial language that you'd like to mention?"*

Q4   *"Are there any other observations of Smith's body language that you'd like to mention?"*

Q5.1   *"If you do not now think that Gary Smith is an efficient, effective, honest member of staff, what are your concerns?"*

Q5.2   *"Would you carry out more audit work in a different way, for example, concentrating on different areas more than others, and if so, what areas?"*

Q5.3   *"Any final feedback please?"*

Not all students answered all the questions – and I have taken a nil reply as a "no comment" or "nothing to add" reply. A full copy of all the replies is given in appendix 3. The number of replies was:

<div align="center">

Table 6.12
Number of qualitative questions answered

</div>

Question	Number of students who answered (spilt by audit exp).		Group			
	< 2 years	**> 2 years**	**1**	**2**	**3**	**4**
1	18	4	3	6	6	7
2	21	3	3	7	7	7
3	15	4	5	5	5	4
4	17	5	4	5	9	4
5.1	52	6	13	14	13	18
5.2	29	7	9	7	11	9
5.3	19	3	7	4	5	6
No questions answered	3	0	1	2	0	0

6.5.1   Analysis of answers given to question 1 (22 students answered)

This question was posed at the end of the first scenario in which the auditee's answers (should have) showed him at his most effective, efficient and honest. In contrast to the earlier quantitative feedback, the answers indicate that the students were starting to have doubts.

'No problems' answers (3 students)

These were given by three students:

- *"I didn't see anything to make me doubt him.*
- *"Seemed confident and competent".*
- *"Seemed quite confident in his answers – seemed honest".*

The 'Tried to look relaxed, but...' and the 'Too co-operative, but…' answers (4 students)

- *"He tries to look relaxed and open, but I doubt it".*
- *"He seems a little too relaxed".*
- *"Too co-operative in the interview – seemed rehearsed".*

The 'Poor attention' answers (2 students)

- *"He pays no attention to the critical questions"*
- *"Does not take the interview very seriously"*

The 'Over-confident' answers (3 students)

- *"He seemed very confident – perhaps too confident".*
- *"Over-confident (towards false signatures)".*

The 'Hiding something' answers (3 students)

- *"His body language seems to lean to hiding something".*
- *"Looks like hiding something – gesture is protecting himself".*
- *"Does seem to be hiding something".*

Feedback from students with two or more years' audit experience (4 students)

- *"[His] hands formed a barrier in front of [his] face on occasion".*
- *"The client [ie; auditee] answered what he perceived the best answer was",*
- *"[He] does not concentrate; pays no serious attention to the critical answers".*
- *"He seems hesitant and needed to defend himself a few times. He seems not to be a credible source of information".*

So all students who had more than two years of audit experience and who answered this question, had early doubts in some form of the auditee.

Summary of this feedback

The overall summary of the qualitative feedback at this early scenario stage, is that a few, rather unsubstantiated, student doubts about the auditee are creeping in. Within their answers, students do not point to anything specific. However, as only 19 out of 67 students actually gave questioning feedback about the auditee at this stage, one could postulate that the other (72%) of students did not have anything really critical to say about the auditee. This figure is in the same order as the quantitative feedback.

6.5.2 Analysis of answers given to question 2 (24 students answered)

This question was posed at the end of the second scenario for which the auditee's answers, theoretically, should have showed him as only very slightly less effective, efficient and honest compared to the end of scenario 1. However, the students having seen the overall scenario scene twice, and thus becoming more used to it, might have been looking more carefully for things to find.

'More confident or competent than Scenario 1' answers (7 students)

- *"Looks more competent than scenario 1".*
- *"Seemed more confident".*
- *"Much more confident".*
- *"Slightly more arrogant".*
- *"More honest… his confidence was perhaps an indicator".*

'Not as confident as Scenario 1 / more uncertain' answers (3 students).

- *"Not as overly confident as Scenario 1",*
- *"Less sure how to respond".*
- *"Reluctant and unsure".*

'Frowning / raising eyebrows' answers (3 students)

- *"He did do a bit of frowning / raising eyebrows which makes me think that maybe he wasn't totally honest".*
- *"Frowning on occasional questions".*
- *"A lot of frowning and making things up as he goes along".*

'Nervous' answers (2 students)

"Seemed to be defensive, nervous at beginning.
"Fairly nervous, I think he was lying when he drank from the cup".

Feedback from students with audit experience

- *"Frowning on occasional questions. Abrupt responses. Slight offence that he is being questioned".*
- *"A lot of frowning. Making things up as he went along".*
- *"Facial expressions reveals some form of tension, probably there is an incongruence between what he is saying and what he knows to be true".*

All students who had more than two years of audit experience, and who answered this question, had doubts in some form of the auditee.

Summary of feedback

The students have not expressed a clear view of their feedback to this scenario other than perhaps a little more disquiet about the auditee's presentation. I note that neither of the two significant variations between scenarios one and two - the pauses when the auditee's girlfriend and the age of the EasyPay system were mentioned - were noticed or commented upon by the students.

6.5.3   Analysis of answers given to question 3 (19 students answered)

This question was posed at the end of the third scenario. In this scenario the auditee varied his facial movements, especially the eyes and the mouth. I would have expected the students definitely to start to question the auditee's honesty after this scenario.

The 'Eye Contact' answers (5 students)

"Very poor eye contact".
"Inconsistent eye contact [and] robotic responses".
"Looks away for certain questions, and <u>nervous</u>".

"Didn't notice eye/mouth movements".
"Better eye contact".

The 'Nervous', or 'Anxious' or 'Tense' answers (4 students)

- *"He has prepared what he ought to say in advance and he seems a little bit nervous".*
- *"Moves only when anxious".*
- *"He seemed quite nervous and concerned".*
- *"He seems very tense and constantly anxious about answering any question. It seems that something is wrong".*

The 'Smiling a lot' answers (2 students)

- *"[He was] smiling a lot?".*
- *"[He] seemed very calm and relaxed. He kept smiling?"*

Feedback from students with audit experience

Feedback from those four students with two or more years' audit experience, and who answered this question, was:

- *"I was looking at the holistic body language. I think he is hiding information, not being totally honest, which raises questions in me regarding why?"*

- *"Inconsistent eye-contact noticeable. Robotic responses. Did not really want to be there".*
- *"Very defensive".*
- *"When he took a drink, it was as if he was trying to cover his face".*

Summary of feedback

The feedback after this session was poor, in that few students noted what the actor was doing with his eyes and his face movements. The lack of clear identification of the eye movements is also reflected in the quantitative feedback given earlier in this chapter. This may well be an area that can only be demonstrated clearly when there is close physical contact between the auditor and the auditee, and thus may be an area of future auditor training that may be better taught in a more theoretical, less practical, manner.

Though only 19 out of the 67 students gave qualitative feedback after this scenario, the oral feedback that I received as part of my Q&A sessions at the end of each presentation, was that, after scenario 3, students knew there was 'something wrong', but they were not sure quite why they knew that. However, the very nature of the exercise means that they were likely to be looking for something.

6.5.4 Analysis of answers given to question 4 (22 students answered)

This question was posed at the end of the fourth scenario. In this scenario the auditee varied his body movements, especially the hands, arms and legs. I would have expected the students to be certain to question the auditee's honesty after this scenario.

General / non-specific concerns

Unlike the previous analyses about facial movements, the feedback from this session indicated a general but often non-specific concern by the students about the auditee's honesty. For example, 13 of the replies said that the auditee was:

- 'Defensive'   (9 students)
- 'Tense'   (5 students)
- 'Nervous'   (2 students)
- 'Anxious'   (2 students)
- 'Not relaxed'   (1 student)
- 'Leaning forward'   (1 student)

Thus, the cumulative message gained from the auditee's body movements was important to the students. Specific examples are:

- *"[He] touches his mouth a lot, **defensive** stance, **tense,** seems relaxed when the interview came to an end, neck / tie ruffling".*
- *"[He was] **tense,** arm folding , slightly **defensive**, tapping fingers, appears to be **nervous** and **anxious**, looking away down left".* In this answer, the possible NLP implication is noted.
- *"Folded arms when asked about false signatures = **defensive.** Then realised his body language and changed it knowingly. Lots of shuffling and covering his mouth while answering. Change of **leaning** (front/back) depending on questions, eg: **leaning forward** when trying to convince about an answer".*

In these answers, only one student gave a general / non-specific answer (ie: "*Nervous"*) without indicating the auditee's specific body movements which caused their general / non-specific concerns.   The conclusion is that students were analytically identifying specific body movements, the sum of which led to their general concerns about the auditee's body language.   Those specific movements mentioned which two or more students cited were: Crossing arms; Touching face with hands; Touching and/or covering mouth; Neck and/or tie touching or ruffling; Fingers or hand strumming or tapping.

The 'Covering or touching the mouth or face' answers (8 students)

"Touching face with hands".
"Touches his mouth a lot".
"He was quite defensive in the way he ... covered his mouth".
"Hand frequently covered his mouth when responding to earlier question – [I] query his honesty".
"[He] was covering his mouth - as if he didn't want interviewer to hear clearly what he was saying".

The 'Crossed arm' answers

These were given by five students and, in all the answers, their interpretation of the arm crossing was that the auditee was defensive.

The 'Fingers or hands strumming or tapping' answers (3 students)

- *"... Tapping fingers – appears to be nervous and anxious".*
- *"He looked agitated and bored as he was strumming his fingers and checking his watch".*
- *"Tapping hands as if to say why am I here?".*

The 'Neck or tie touching or ruffling' answers (2 students)

- *"..some movements like the tie straightening are a bit dodgy".*
- *"Slightly defensive ... Neck/tie ruffling".*

Feedback from students with audit experience

I could see no variation in the answers given by the more experienced students compared to those with little or no audit experience.

Summary of feedback

The key message that I took from this feedback was that an auditee's physical body language, excluding facial language, did give rise to potential audit concern, and that the individual elements of that body language caused a general concern in the students. This was expressed by their feeling that the auditee was being unnecessarily defensive, tense, anxious or nervous. The question then must be whether that concern is or should be translated into further audit work, or dismissed as a typically nervous auditee (as opposed to an auditee who has something to hide).

The students, accordingly, indicated that they wanted more training in the interpretation of body language, and that they would consider altering the amount of the work they subsequently carried out with that auditee, or the way they did that work, in order to try to clarify if their suspicions were material or were groundless.

6.5.5 Analysis of answers to question 5.1 (58 students answered)

This question was the first of three posed after scenario five, and, for each of the three questions, the students were asked to summarise their feelings as a result of having seen all five scenarios. This specific question reminded the student that, from the information the auditor initially had on file, which is that the auditor is an efficient, effective and honest member of staff, 'Having seen all the five interviews what your impression is now?'

The auditee is not honest / the auditee tells lies

Of the 58 students who answered this question, 21 (ie, 36%) said that the auditee had been lying or was just dishonest. There was no change in any of the actual answers given in

any of the scenarios, and no words were spoken to imply, say or prove that the auditee was lying whatever, so this statistic is based purely on body language.

Examples of this are:
- *"On his last interview Gary looked un-honest".*
- *"I am sure that he isn't honest", "Because of …. , he won't be honest".*
- *"Lack of honesty".*
- *"Might be talking lies", etc.*

Students who described their concerns without stating that the auditee was dishonest included:

- The auditee is hiding something – 4 students

- The auditee is nervous or not confident – 16 students

- The auditee's body language changed scenario by scenario – 4 students.

The auditee is not necessarily dishonest (3 students)

- *"[He] seemed scared, like he had something to hide or was trying to be too eager to justify himself. On the other hand if I met him for the first time, I'd wonder if he was very shy".*
- *"[He] varies from one interview to another, for the most part he is very defensive and maybe hiding. But it could also come from fear or him being worried a lot".*
- *"Changes in tone and body language suggest possible hidden issues, needs to be pursued".*

In addition to these three responses there were two students who were not definitive in their replies - my underlining:

- *"Might be talking lies".*
- *"Overall body language … made me wonder and doubt about his honesty …"*

It is noted that both these students had previous audit experience.

Summary of feedback

As only three students expressed any doubt that the auditee was not dishonest, the conclusion from this feedback is that students came to an emotional and perhaps overly black-and-white conclusion.

It would be interesting to:
- show only scenario five to a control group of students to see if they came to the same conclusion after four minutes of observing the auditee, or if it was this extra time -

five scenarios and thus about twenty minutes of observation - that caused them to re-evaluate their initial views. After all, in real life, an auditor does not normally have the luxury of five repeated interviews with one auditee.

- require the students to justify to their audit manager the potential extra audit work that they now feel is required on the understanding that, if that extra work only proved that previous audits were correct - that the auditee was honest - then they would have to pay for the cost of that extra.

- ask how the 36% of auditees who, in this study, said that the auditee was dishonest, will defend themselves when the auditee brings charges of slander against them.

All these points should be considered in future research.

However, the overall feedback, both qualitatively and quantitatively, is that the correct interpretation of body language is a useful audit tool to assist auditors in obtaining information about their auditees. Together with other audit findings, it will enable auditors to identify areas of potential effectiveness, efficiency or honesty shortcomings in their auditees.

6.5.6   Analysis of answers to question 5.2 (36 students answered)

This question was the second of three posed after scenario five. Students were asked to summarise their feelings as a result of having seen all five scenarios. This question asked the student that if, having seen the scenarios, they now planned to concentrate on areas of work that were different to those initially planned, what areas that would be?

This question did not seek to question the now perceived honesty, effectiveness of efficiency of the auditor, but just to give their feedback of areas that were not being well run by the auditor. The background to the scenarios was that:

a), the auditee was in collusion with a member of their staff, so that an independent check which should had been built into the control procedures may not have been effective, and

b), the auditee designed the EasyPay system and thus may well be able to use its defects to his own advantage.

Of the answers given, seven students specifically recommended that the auditor should now consider the computer system, and three students that attention should now be given to the "system of controls". Other answers especially highlighted the need to check the creditors, check the VAT on the invoices, look for false signatures, check the invoices, and improve line management controls, without looking at the larger problems.

The overall message given by the students was that more work than initially planned was indeed definitely required, but the two areas of in-built-designed specific fault - the computer system and the independence of procedures - were not specifically identified.

6.5.7 Analysis of answers to question 5.3 (22 students answered)

This question, like 5.1 and 5.2, asked students to summarise their feelings as a result of having seen all five scenarios. This was the last question; it asked the student to provide any final feedback. Because of the general nature of the question, and perhaps also because of time limitations, only 22 students provided any feedback to this question. The overall feedback said that the process of viewing the videos and the use of body language was most interesting, but that three areas of concern were particular themes that emerged:

Concern about the ability of an auditee to hide his body language

- *"Interesting but difficult [as] someone can hide fault perfectly".*
- *"I think the video might not be efficient enough cos when people get used to it, they become very good at it, so you cannot tell right away*

The need to study this subject more

- *"Having seen these interviews, it is very important to study body language because it can reveal so many things, especially how honest someone is".*
- *"Quite an interesting area – not really too sure of before this. Will consider it more in future audits I conduct. It was interesting to see the same words portrayed and acted in very different manners – giving a completely different opinion of the person and the area".*
- *"Experience after full training is the only way to have an incisive view upon the behaviour of body language of an audited person".*

The need for care in using the interpretation of body language.

- *"The body language plays an important role in deciding if the person is lying. However, we have to be careful in order to understand some kinds of attitudes".*

- *"Interpretation of face can be first impression, but to be on judgement we must check the answer – we can't say "he is a liar" because he is nervous. We must therefore be very careful".*

In addition to these, two students noted that:

- *"Because of cultural differences, it was difficult to interpret some of the actions observed".*

- *"Behaviour is extremely important but at the same time it is extremely important to have hard EVIDENCE".*

Summary of feedback

The areas of caution that students identified were that:

a) training needs to be given to better understand the whole technique of interpreting body language, but that, nevertheless, anyone who is good at hiding their thoughts may be able to conceal those thoughts, even from a (trained) auditor,

b) Care in interpretation is required, especially when cultural differences are present; and

c) There is no substitute for hard factual evidence.

6.6   Feedback after scenario 5 on all the scenarios, and whether a fraud investigation is now required

At this stage, I reminded students that *"From all the information the auditor originally obtained from his file, Gary Smith is an efficient, effective, honest member of staff. Only a cursory audit is required".* I then asked students the following:

- *Having seen these five scenarios, is that still your impression?* Yes   No

- *Would you consider a full fraud investigation should be carried out on Gary Smith's work?* Yes No

- *Without any further supporting data, would you ask your head of audit for an increase in the audit time allowable in this area?* $\boxed{Yes}$ $\boxed{No}$

- *If you were planning your audit department's training, what percentage of that training, if any, do you feel could be justified in providing training on behavioural auditing? ......%*

- *If you were planning your audit department's training, what percentage of that training, if any, do you feel could be justified in providing training on the interpretation of facial and body language? ......%*

The results of this feedback, which are given in table 6.13 below, show that:
- 97% of the students would not just do a cursory audit
- 71% would both carry out a fraud investigation and give more time than originally planned for the audit
- Students would hope to have 33% of their training on behavioural audit and 30% on body language.

These results have been sub-analysed by students' audit experience. They show that students with more than two and up to six years' experience are, perhaps, more "street-wise"; 33% would carry out a fraud investigation compared to 85% with no experience, and none of them would extend the audit time, compared with 93% of those who had no experience. Similarly, the more audit-experienced students would give far less time to behavioural auditing and body language training.

The conclusion is that, at an early stage of their career, students consider there is value and thus a need for training in both behavioural auditing and body language.

Table 6.13

Whether to carry out a fraud investigation or not

	Do not do a cursory audit ?	Carry out a fraud invest. ?	Give more audit Time?	% Training time on: Behav.Aud.	Body Lang
All students					
Change answers	**63**	**42**	**34**		
No change answers	**2**	**17**	**14**		
Neither Y or N	**2**	**8**	**19**		
% seeking change	**97%**	**71%**	**71%**		
Average				**33%**	**30%**

Students with no experience

Change answers	29	23	14		
No change answers	0	4	1		
Neither Y or N	1	3	15		
% seeking change	100%	85%	93%		
Average				32%	41%

Students with <2 years' experience

Change answers	9	2	3		
No change answers	1	7	7		
Neither Y or N	1	2	1		
% seeking change	90%	22%	30%		
Average				14%	13%

Students with 2-5 years' experience

Change answers	2	1	0		
No change answers	1	2	3		
Neither Y or N	0	0	0		
% seeking change	67%	33%	0%		
Average				15%	12%

Students with 6-10 years' experience

Change answers	3	2	2		
No change answers	0	1	0		
Neither Y or N	0	0	1		
% seeking change	100%	67%	100%		
Average				23%	15%

6.7   General feedback from students on the process

The feedback from students on these scenarios and the specific feedback they gave was both excellent and interesting. For example, students appeared to believe that a real auditee was being quizzed by an auditee and that his reactions were genuine. Students also believed that the auditee was, on occasions, trying to provide the answers the auditor wanted to hear, as opposed to genuine or correct answers. In addition, students interpreted the change in facial and body language between the scenarios as a change of the wording of the answers given, which was not, of course, the case.

The above results are derived purely from the quantitative data resulting from the students' feedback on the questions about the answers the auditee gave, and are a summary of the same. A full copy of that quantitative data is given in appendix 3, together with a copy of the five scenarios on DVD at appendix 4.

Feedback from the students, especially in general discussion sessions at the end of each presentation, identified a very clear demand for more training and appreciation of this practical auditing tool. The results from the data provided by the students showed that this is a viable method of teaching (student) auditors about this aspect of behavioural auditing,

The feedback also indicated that further research might be productive, and this and further research topics which were identified in earlier chapters, are discussed in chapter 7.

6.8   Summary and conclusion

For me, these scenarios, and the results of presenting them, have shown how the use of body language can be appreciated by both student and practising auditors as a valuable tool. It helped them to identify weaknesses in individuals and thus potential problems in a company – specifically, an auditee's effectiveness, efficiency and honesty.

Most excitingly, it indicated that an auditor should receive and evaluate all types of input from an auditee – data, written, oral and physical – and then assess all these inputs in order to assist their conclusion-making process about audit findings.

The research did show that the interpretation of body language by auditors is a tool that will help them identify an auditee's possible dishonesty, as well as identifying if an auditee appears to be less efficient and/or effective as expected.

There are two overall conclusions: that more audit training on the interpretation of body language is required, and that further research in this whole area would be, potentially, viable and valuable. Such further research is discussed in chapter 7.

Chapter 7   Overall summary, conclusion and areas for future research

7.1   Overall summary

This is an area of research that has long interested me. It started with the realisation that a company might not offer me a job for no other reason than that I had a beard - in the 1970's beards were seen by some companies as an indicator of dishonesty. This led me to question whether the look of a person's face could accurately tell an observer – for example, an auditor – anything valid about them. By extension, I then questioned potential assumptions that an auditor might make as a result of their observations of a person's facial or body language, or, in general, their behaviour. Thus, my interest in behavioural auditing and body language was born.

As Chief Examiner for the IIA (UK and Ireland), I examined the course material that our students were recommended to read, and found only superficial reference both to behavioural auditing, and to the use of the interpretation of body language by an auditor. As a result, I then examined various textbooks to understand these topics better, but found a paucity of information about both.

In addition, as a practising internal auditor, I was put under considerable pressure to reduce costs. I found myself telling my teams to "use their instincts", or "to use their audit nose", when interviewing auditees, in order to help them, as auditors, decide how to work more efficiently (ie, whether more or less work was required in a particular area that we planned to audit). Inevitably, and perfectly reasonably, I was challenged about my assumption that this aspect of what I thought was behavioural auditing could be a practical, justifiable, audit tool.

This research therefore started with an examination of the textbooks to find an answer to my initial question – "What is behavioural auditing?" This search found sound references to the behavioural aspects of auditing, but little to define precisely what behavioural auditing actually is. It did, however, suggest the potential elements of behavioural auditing

I therefore questioned a wide sample of auditors from all three audit disciplines - internal, external and consultancy - both by the use of electronic questionnaires and by face to face interviews. I preset the target population for both the electronic and the face-to-face input, but increased the latter to offset the poor numerical response to the former. I asked this combined focus group what they considered behavioural auditing to be, while assisting them by explaining the elements that textbooks identify as part of behavioural auditing. At this stage, I also took the opportunity to ask their opinions about the use of the interpretation of body language by auditors, and, indeed, whether either or both techniques could assist in the potential identification of fraud.

The resulting information provided me with a considerable amount of data, both quantitative and, especially, qualitative, which enabled me to formulate and recommend a definition of behavioural auditing.

This led to consideration of whether practising or, especially, student auditors would be able to identify an auditee's honesty by observing scenarios in which an auditee answered an auditor's questions. The research revealed that students could indeed identify from an auditee's body language how honest, as well as how efficient and effective, the auditor in the scenarios appeared to be. It also strongly identified the need for training in the interpretation of body language to be provided to auditors.

In summary, I found that:

- Auditors do not have a clear understanding either of what behavioural auditing is, or of its advantages and disadvantages.

- There is no common or agreed definition of behavioural auditing, nor one that could be agreed by the interviewees; I argue therefore that a definition needs to be established.

- 44% of interviewees said there were advantages in carrying out behavioural auditing, 43% were neutral, and 13% said there were disadvantages. The interviewees identified that the greatest benefit that behavioural auditing provides is that it makes the audit

more efficient; the least benefit is that it makes the audit less business-like. However, interviewees also identified that in order to counteract these perceived disadvantages of behavioural auditing, more training is required.

- There is scepticism about whether behavioural auditing applies subjective judgement-making to the traditional, totally factually-based, audit process. This is countered by statements from experienced auditors who expressed surprise that I was enquiring about the use of their intuition; they believed that any good auditor uses his intuition and audit nose to identify problems, and "*that's the difference between an average and a good auditor*".

- 7% of those interviewed said they did not use the interpretation of body language as part of behavioural auditing, and 25% said they positively used it. For those auditors that used the assessment of an auditee's body language to assist their work, they considered that the key element was the observation of the auditee's eyes; poor eye contact caused suspicion. However, few interviewees said that it was important that two or more elements of body language should be considered together. This indicates that auditors who use the interpretation of body language as a tool require more training in body language. Indeed, 89% of interviewees had not positively received training in the interpretation of body language.

Although further research on body language for auditors is obviously desirable, at this stage I have clearly demonstrated that a better knowledge of this subject would improve the potential efficiency and effectiveness of an auditor's work.

7.2   Overall conclusion

Behavioural auditing is understanding people, motivation, relationship/information and the 'audit nose'. It is not about information decisions, relationships vis a vis accounting, or reporting. In addition, behavioural auditing can also be about the auditing of staff behaviour when the behaviour of those staff is key to their work, for example, in a call

centre. Behavioural auditing is not a specialism in its own right; it is one of the techniques in an auditor's tool box of techniques.

Behavioural auditing can and should be defined clearly, especially as its use, including the assessment of an auditee's body language, is beneficial. My recommended definition is:

- ***The identification of issues which impact on an organisation's effectiveness by the observation of staff behaviour, and/or***

- ***The audit of a department in which the behavioural attitudes of staff in that department are critical to customer perception of their organisation.***

All auditors should receive and evaluate all types of input from an auditee - data, written, oral and physical - and then assess all these inputs in order to assist their conclusion-making process about audit findings. The interpretation of body language, which is a part of behavioural auditing, enables an interpretation of an auditee's physical display of information. The understanding of body language, which is, of course, a science in its own right, is a technique that can advantageously be used by auditors.

A better understanding of behavioural auditing and body language will be measurably helpful to an appropriately trained auditor, especially so if carried out in the scoping process of an audit prior to the full audit being carried out. An auditor can be trained to interpret an auditee's body language to identify if the auditee is dishonest, deceitful and/or otherwise provides incomplete information. Thus, the interpretation of body language by auditors is a tool that will help them identify an auditee's possible dishonesty, as well as identifying if an auditee appeared to be less efficient and/or less effective than expected.

However, although the use of the interpretation of body language is recommended in audit textbooks, little effective training is provided for auditors on its use, and there is a danger that they may be tempted to apply half-learnt theory to their practical audit work, and thus reduce the quality of their audit work. There is a need and, indeed, a good potential business opportunity to provide 'Body Language for Auditors' courses.

Further research into body language for auditors will be of both academic and practical benefit; this work will further the knowledge, understanding and application of behavioural auditing and, when applied in conjunction with other audit skills, will further improve the effectiveness of the auditing profession.

7.3   Areas for future research

In paragraph 1.4, I note that the use of interviewing skills, the application of the understanding of body language skills, and the interpretation of human behaviour skills, are all combined, albeit that each of those three skills is a major study in its own right. Accordingly, there is a danger that selectively picking those elements from each skill only to the depth which needs to be used by the practising auditor will be perceived to result in a superficial understanding of each of the skills. Reasons were given as to why I felt this was not the case but two main caveats that need to be considered were noted:

i.   The understanding of body language becomes far more complex when studying people of different cultures or racial backgrounds. In this study the theoretical section on body language was limited to subjects who are British by birth and/or culture, and the practical section on observing an interviewee who is a British subject.

ii. The audit students and auditors who it is recommended should be studied may have limited experience of fraud in their work-place and, also, because of company confidentiality, may not wish to share their experience of fraud(s) that have occurred in their company.

A further factor, which was noted in paragraph 1.1.4, is that the quantity of a person's facial hair has, historically, at some times been considered to be a measure of their honesty, and possibly also their effectiveness and efficiency. The actor playing the auditee in these scenarios may, thus, have created an initial impression to the students of being less honest than a clean-shaven auditee.

In chapter six, and to help reduce the superficiality that was a potential concern voiced in the second caveat, the proposed number of students who were asked to give feedback on

the body language scenarios was increased to 67 students – 68% more than initially proposed.

The results of the research in chapters two to six met the expectations and ambitions required. It proved the methodology and clearly illustrated and exemplified the research proposition made.

I now recommend future research into the interpretation of body language for auditors. The following are notes on issues that should be addressed. However, these notes do not consider the potentially considerable practical difficulties of undertaking such research. Using the methodology detailed in chapter six, it is suggested that:

Future research could retain:

- Five scenarios, each about four minutes long.

- An audit situation that is easily understandable by anyone.

- The fixed camera position on the auditee only which shows both the auditee's body and facial movements.

- The existing format of the scenarios:
  (1) Honest.
  (2) Very slight variation of (1) ie, with hesitation on, say, two answers.
  (3) Varying (2) by facial expressions only.
  (4) Varying (2) by body movements only.
  (5) Varying (2) by both facial and body movements.

- The number of answers given by the auditee. Twenty is a practical, effective number.

- No change in the script, or in the tone of the questions and answers, or in the camera angle, scenario by scenario.

Future research could consider the following changes:

- Technical focus. Whilst maintaining a fixed and identical camera position for all the scenarios, it could be beneficial to improve the camera's focus on the auditee's face.

This is especially important for scenario 3, so that students can consider subtle auditee eye movements, which could also illustrate the potential interpretation of Neuro Linguistic Programming (noted on page 124 above).

- The auditee. It would be beneficial to produce more sets of scenarios, each with a different auditee, to enable students to watch male or female auditees who were of different ages and of different ethnic backgrounds (European - North and South, Asian, African, American - North and South). Indeed, one or two auditees could even have beards!

- The auditor. Mechanisation of the auditor questions may be advantageous in order that precisely the same recorded questions and responses were used for all the scenarios.

- Numbers. An increase in the total number of students who viewed the scenarios as well as increasing the proportion of experienced auditors in that population could be beneficial, whilst noting their ethnic background, and continuing to note their audit experience.

- Timescale. Consideration could be given to monitoring the impact on students for perhaps one year after they view the scenarios, in order to measure whether the process caused them to alter their future audit sample size, and/or resulted in an increased number of fraud identification(s), and/or an resulted in increased number of effectiveness/efficiency recommendations.

Other

A further area of possible research which, has not been considered in this thesis, is the alleged ability of a competent auditor to physically enter a company, or operation within a company, and to 'sense' the atmosphere therein – to 'know' if the work that is done there is carried out effectively and/or efficiently or not. This instinctive assessment that some (experienced) auditors claim, might, also, be the subject of potentially fruitful research.

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Appendices

Appendix 1   Ekman, Paul, Telling Lies (1985) - a "Check-list of lies".

The notes below are directly copied from Tables 1 to 4 from this publication. It should be noted that the information is based on Anglo Saxon USA-based subjects. For auditors, appendix 1.4 is especially commended.

Appendix 1.1 Table 1

The betrayal of concealed information organized by behavioral clues.

Clue to deceit	Information revealed
Slips of tongue	May be emotion-specific; may leak information unrelated to emotion
Tirades	May be emotion-specific; may leak information unrelated to emotion
Indirect speech	Verbal line not prepared; or, negative emotions, most likely fear
Pauses and speech errors	Verbal line not prepared; or, negative emotions, most likely fear
Voice pitch raised	Negative emotion, probably anger and/or fear
Voice pitch lowered	Negative emotion, probably sadness
Louder, faster speech	Probably anger, fear, and/or excitement
Slower, softer speech	Probably sadness and/or boredom
Emblems	May be emotion-specific; may leak information unrelated to emotion
Illustrators decrease	Boredom; line not prepared; or, weighting each word
Manipulators increase	Negative emotion
Fast or shallow breathing	Emotion, not specific
Sweating	Emotion, not specific
Frequent swallowing	Emotion, not specific
Micro expressions	Any of the specific emotions
Squelched expressions	Specific emotion; or, may only show that some emotion was interrupted but not which one
Reliable facial muscles	Fear or sadness
Increased blinking	Emotion, not specific
Pupil dilation	Emotion, not specific
Tears	Sadness, distress, uncontrolled laughter
Facial reddening	Embarrassment, shame, or anger; maybe guilt
Facial blanching	Fear or anger

Appendix 1.2 Table 2

The betrayal of concealed information, organized by type of information

Type of information	Behavioural clue
Verbal line not prepared	Indirect speech, pauses, speech errors, illustrators decrease
Non-emotional information (eg: facts, plans, fantasies)	Slip of the tongue, tirade, emblem
Emotions (eg: happiness, surprise, distress)	Slip of the tongue, tirade, micro expression, squelched expression
Fear	Indirect speech, pauses, speech errors, voice pitch raised, louder and faster
Anger	speech, reliable facial muscles, facial blanching
Sadness (Maybe guilt and shame)	Voice pitch lowered. Slower and softer speech, reliable facial muscles, tears, gaze down, blushing
Embarrassment	Blushing, gaze down or away
Excitement	Increased illustrators, voice pitch raised, louder and aster speech
Boredom	Decreased illustrators, slower and softer speech
Negative emotion	Indirect speech, pauses, speech errors, voice pitch raised, voice pitch lowered, manipulators increased
The arousal of any emotion	Changed breathing, sweating, swallowing, squelched expression, increased blinking, pupil dilation

Appendix 1.3 Table 3

Clues that expression is false

False emotion	Behavioral clue
Fear	Absence of reliable forehead expression
Sadness	Absence of reliable forehead expression
Happiness	Eye muscles not involved
Enthusiasm or involvement with what is being said	Illustrators fail to increase, or timing of illustrators is incorrect
Negative emotions	Absence of sweating, changed respiration, or increased manipulators
Any emotion	Asymmetrical expression, onset too abrupt, offset too abrupt or jagged, location in speech incorrect

Appendix 1.4 **Table 4**

Checklist of lies

Questions about the lie

Hard to detect	**Easy to detect**
1. Can the liar anticipate exactly when he or she has to lie?	
YES: line prepared and rehearsed	NO: line not prepared
2, Does the lie involve concealment only, without ant need to falsify?	
Yes	NO
3. Does the lie involve emotions felt at the moment?	
NO	YES: especially difficult if (a) negative emotions such as anger, fear, or distress must be concealed or falsified, or (b) liar must appear emotionless and cannot use another emotion to mask felt emotions that have to be concealed
4. Would there be amnesty if liar confesses to lying?	
NO: enhances liar's motive to succeed	YES: chance to induce confession
5. Are the stakes in terms of rewards or punishments very high?	
Difficult to predict: while high stakes may increase detection apprehension. Should also motivate the liar to try hard	
6. Are there severe punishments for being caught lying?	
NO: low detection apprehension; but may produce carelessness	YES: enhances detection apprehension, but person may also fear being disbelieved, producing false positive errors
7. Are there severe punishments for very act of having lied, apart from the losses incurred from the deceit failing?	
NO	YES: enhances detection apprehension; person may be dissuaded from embarking on lie if she or he knows that punishment for attempting to lie will be worse than the loss incurred by not lying
8. Does the target suffer no loss, even benefit, from the lie? Is the lie altruistic, not befitting the liar?	
YES: Less deception guilt if liar believes this to be so	NO: increases deception guilt
9. Is it a situation in which the target is likely to trust the liar, not suspecting that he or she may be mislaid?	
YES	NO
10. Has liar successfully deceived the target before?	
YES: decreases detection apprehension; and if target would be ashamed or otherwise suffer by having to acknowledge having being fooled, she or he may become a willing victim	NO

Questions about the lie (cont)

	Hard to detect	**Easy to detect**

11. Do liar and target share values?

NO: decreased deception guilt

YES: increases deception guilt

12. Is the lie authorized?

YES: decreases deception guilt

NO: increases deception guilt

13. Is the target anonymous?

YES: decreases deception guilt

NO

14: Are the liar and the target personally acquainted?

NO

YES: lie catcher will be more available to avoid errors due to individual differences

15. Must the catcher conceal his/her suspicions from the liar?

YES: lie catcher may become enmeshed in his/her own need to conceal and fail to be as alert to liar's behavior

NO

16. Does lie catcher have information that only a guilty, not an innocent, person would also have?

NO

YES: Can try to use Guilty Knowledge Test if the suspect can be interrogated

17. Is there an audience who knows or suspects that the target is being deceived?

NO

YES: may enhance duping delight, detection apprehension, or deception guilt

18. Do liar and lie catcher share the same language or national or cultural backgrounds?

NO: more errors in judging clues to deceit

Yes: better able to interpret clues to deceit

Questions about the liar

<table>
<tr><th>Hard to detect</th><th>Easy to detect</th></tr>
</table>

19. Is the liar practiced in lying?
YES: especially if practised in this type of lie   NO

20. Is the liar inventive and clever in fabricating?
YES   NO

21. Does the liar have a good memory?
YES   NO

22. Is the liar a smooth talker with a convincing manner?
YES   NO

23. Does the liar use the reliable facial muscles as conversational emphasizers?
YES: better able to conceal or falsify facial NO
expressions

24. Is the liar a skilled as an actor, able to use the Stanislavski method?
YES   NO

25. Is the liar likely to convince her/himself of her/his lie, believing that what s/he says is true?
YES   NO

26. Is she or he a 'natural' liar or psychopath?
YES   NO

27. Does liar's personality make liar vulnerable either to fear, guilt, or duping delight?
NO   YES

28. Is he or she ashamed of what he or she is concealing?
Difficult to predict: while shame works to prevent confession, leakage of that shame may betray the lie

29. Might suspected liar feel fear, guilt, shame or duping delight even if suspect is innocent and not lying, or lying about something else?
YES: Can't interpret emotion clues   NO: signs of these emotions are clues to deceit

Questions about the lie catcher

Hard to detect	**Easy to detect**

30. Doe the lie catcher have a reputation of being tough to deceive

NO: especially if liar has in the past been successful in fooling the lie catcher

YES: increases detection apprehension; may also increase duping delight

31. Does the lie catcher have a reputation of being distrustful?

Difficult to predict; such a reputation might decrease deception guilt; it may also increase detection apprehension

32. Does the lie catcher have a reputation of being fare-minded?

NO: liar less likely to feel guilty about deceiving the lie catcher

YES: increases deception guilt

33. Is the lie catcher a denier who avoids problems and tends to always think the best of people?

YES: probably will overlook clues to deceit; vulnerable to false negative errors

NO

34. Is lie catcher unusually able to accurately interpret expressive behaviors?

NO

YES

35. Does the lie catcher have preconceptions that bias him/her against the liar?

NO

YES: although lie catcher will be alert to clues to deceit, he will be liable to false positive errors

36. Does the lie catcher obtain any benefits from not detecting the lie?

YES: lie catcher will ignore, deliberately or unwillingly, clues to deceit

NO

37. Is lie catcher unable to tolerate uncertainty about whether he is being deceived?

Difficult to predict; may cause either false positive or false negative errors

38. Is lie catcher seized by an emotional wildfire?

NO

YES: liars will be caught, but innocents will be judged to be lying (false positive errors)

Appendix 2 The results of the interviews are provided in chapter 4

The detailed results from the data analysis are given in appendices 2.1 to 2.12, the summary of page statistics of the interviews are given in appendix 2.13, and the raw data from the electronic and pilot questionnaires is given in appendix 2.14.

Appendix 2.1
What is behavioural auditing? - Scope and elements

		Percentage of respondents					
	is it about ……?						
	and on a scale* from 5 to 1	5	4	3	2	1	Scale point Average
1.1	**Audit nose**	16	50	22	9	3	3.7
1.2	**Information/decisions**	22	50	19	9	0	3.8
1.3	**Judging people**	13	47	22	9	9	3.4
1.4	**Management**	31	47	6	13	3	3.9
1.5	**Motivation**	22	50	6	9	13	3.6
1.6	**Auditing motivations**	6	53	16	22	3	3.4
1.7	**Relationship vis a vis accounting**	13	41	38	0	9	3.5
1.8	**Relationship vis a vis information**	19	63	19	0	0	4.0
1.9	**Reporting**	19	44	13	22	3	3.5
1.10	**Organisation's social dimension**	16	41	22	6	16	3.3
1.11	**Understanding people**	38	47	9	6	0	4.2

*When scale point:
   5 is Strongly Agree; 4 is Agree; 3 is Neutral; 2 is Disagree; 1 is Strongly Disagree

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Appendix 2.2
What is behavioural auditing - Scope, sorted into highest scale point 1st.

		Scale Point (% of replies)					
		5	4	3	2	1	Ave of Replies*
1.11	**Understanding people**	38	47	9	6	0	4.2
1.8	**Relationship viz a viz information**	19	63	19	0	0	4.0
1.4	**Management**	31	47	6	13	3	3.9
1.2	**Information/decisions**	22	50	19	9	0	3.8
1.1	**Audit nose**	16	50	22	9	3	3.7
1.5	**Motivation**	22	50	6	9	13	3.6
1.9	**Reporting**	19	44	13	22	3	3.5
1.7	**Relationship vis a vis accounting**	13	41	38	0	9	3.5
1.3	**Judging people**	13	47	22	9	9	3.4
1.6	**Auditing motivations**	6	53	16	22	3	3.4
1.10	**Organisation's social dimension**	16	41	22	6	16	3.3

This appendix identifies the key elements sorted into order from most agree to most disagree.

Appendix 2.3
What is and what is not behavioural auditing – elements

Interviewees that expressed a clear preference	BA	Not BA	All	IA	Con	EA
1.1 **Audit nose**	17	-3	+14	6	0	1
1.2 **Information/decisions**	1	-6	-5	-1		-1
1.3 **Judging people**	7	-7	0	1	-1	-2
1.4 **Management**	1	-2	-1			0
1.5 **Motivation**	8	-2	+6	2	1	2
1.6 **Auditing motivations**	4	-2	+2	0		0
1.7 **Relationship vis a vis accounting**	4	-11	-7	-2	0	-1
1.8 **Relationship vis a vis information**	8	-4	+4	2	0	1
1.9 **Reporting**	1	-12	-11	-5	-1	1
1.10 **Organisation's social dimension**	3	-2	+1	1	1	-1
1.11 **Understanding people**	17	0	+17	9	2	2

The heading "BA < Not BA" spans the IA, Con, EA columns.

Appendix 2.4
Results from the electronic survey on the suggested definition of behavioural auditing

	Scale Point (% of replies)					Scale point Average
	5	4	3	2	1	
3.1 The human behaviour of staff, etc	9	56	19	16	0	**3.6**
3.2 As 3.1 + "...trained staff", etc	13	50	22	13	3	**3.6**
3.3 As 3.2 + "assessm't / employees", etc	31	41	13	16	0	**3.9**

It was noted that 15.6% of all replies either disagree or disagree strongly with each of the suggested definitions.

When scale point: 5 is Strongly Agree
            4 is Agree
            3 is Neutral
            2 is Disagree
            1 is Strongly Disagree

Appendix 2.5
Results from the electronic survey on the suggested definition of behavioural auditing sorted by professional experience

	Int	Con	Ext	I/C	I/E	C/E	I/C/E	TOTAL
3.1	3		1	1				**5**
3.2 As 3.1 plus ….	2		1	1		1		**5**
3.3 As 3.2 plus ….	3	3	1		1			**8**

Although all interviewees answered the questions, few gave an absolute preference. Most gave valuable subjective comments, which are considered in chapter 5.

Appendix 2.6. Questions 10, 11 - qualitative analysis. Table 4.8

Do you use body language and what elements do you pay attention to?

Prof. Experience	Ref	**Do you use?** Yes +ve	? (cyan)	? (yellow)	No	Eyes	Arms	Face	Hands	Legs	Stance
Internal Audit	VW	X				X	X			X	X
	MS		X								
	JT		X								
	MC	X				X					X
	VP			X		X					
	PSw				X						
	SD			X		X					X
	SW			X		X					
	PR				X						
	KD		X				X				
	RS			X		X					
Consultant Audit	PT	X						X			
	PH		X			X					
External Audit	IL	X						X			
	AP		X			X			X		
	SC		X								
	JL		X								
Int/Cons Audit	BR		X								
	PS		X			X					
	GF	X				X		X			
	GF	X				X		X			
Int/Ext Audit	PA	X				X					
	TS		X			X					
Cons/Ext Audit	DW			X							
	LB			X							
	ML		X			X					
	CH			X							
Int/Cons/Ext Aud	KLV			X							
	SCh		X								
		7	12								
		19		**8**	**2**	**14**	**2**	**4**	**1**	**1**	**3**

Appendix 2.7. Question 12 - qualitative analysis.

Has scope of audit altered as a result of applying body language?

	Ref	Yes	Maybe	No
<u>Internal Audit</u>	VW		x	
	MS		x	
	JT	x		
	VP		x	
	SD	x		
	SW		x	
	TK		x	
	PR		x	
	KD		x	
	RS		x	
<u>External Audit</u>	IL			x
	JL			x
<u>Int/Cons Audit</u>	BR	x		
	PS	x		
	GF			x
<u>Int/Ext Audit</u>	PA	x		
	TS	x		
<u>Cons/Ext Audit</u>	LB	x		
<u>Int/Cons/Ext Aud</u>	KLV	x		
	SCh		x	
		7	7	3

Appendix 2.8.   Question 8b – Electronic feedback, and question 14 - interviews

Have you had any training in body language?

	Ref	Yes	Some - by..		No	None, by default
			Course	**Exp.nce**		
Internal Audit	VW			x		
	MS			x	x	
	JT		x	x		
	MC					x
	VP					x
	PSw				x	
	SD	x				
	SW		x			
	TK		x			
	PR					x
	KD	x				
	RS		x	x		
			O			
Consultancy Aud,	PT	x				
	PH					x
External Audit	IL			x		
	AP					x
	SC				x	
	JL			x	x	
Int/Cons Audit	BR				x	
	PS					x
	GF	x		x		
	GF					x
Int/Ext Audit	PA		x			
	TS		x			
Cons/Ext Audit	DW		x			
	LB					x
	ML				x	
	CH				x	
Int/Cons/Ext Aud.	KLV				x	
		4	8	8	7	8
		4	**16**			**15**

x   Electronic feedback
O   Interviews

Appendix 2.9.   Question 13 – qualitative analysis.

Has use of behavioural auditing led you to identify fraud?

Prof. Experience	Ref	Suspected Fraud? No	Suspected Fraud? Yes	If Yes, was fraud found? Yes	If Yes, was fraud found? No
Internal Audit	MC		x		x
	VP		x		x
	PSw		x		x
	TK		x	x	
	SW	x			
	KD		x	x	
	RS		x	x	
Consultant Audit	PT		x	x	
External Audit	AP	x			
Int/Cons Audit	BR		x		x
	GF		x	x, x, x	
Int/Ext Audit	TS		x	x	
		2	**10**	**8**	**4**

Appendix 2.10

How often do you use behavioural auditing?

	Number of replies				
	Way of Life	All Audits	Twice a year	Annually	Never
you..	14	3	3	3	9
your colleagues and those more senior..	7	6	6	2	11
your colleagues and those more junior..	6	6	5	1	14
Average:	**9.0**	**5.0**	**4.7**	**2.0**	**11**

Appendix 2.11

Why use behavioural auditing?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Clarification when sizing an audit ?	3	12	12	4	1
Makes audit work more effective ?	2	10	15	4	1
Makes audit work more efficient ?	7	14	11	0	0
Makes audit work more business-like ?	2	8	16	5	1
Assists good auditor/auditee relations ?	6	7	14	4	1
Average:	4.0	10.0	14.0	3.4	0.8

Appendix 2.12

Disadvantages of behavioural auditing?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Not really come across it before	3	8	10	7	4
The benefits are not quantifiable	3	14	7	6	2
It doesn't fit with a normal audit style	0	7	8	14	3
There is little understanding about it	6	10	6	8	2
You have had no training in its use	6	12	8	2	4
It is pseudo-scientific waffle	1	1	10	13	7
Bosses/auditees would not accept it	3	10	8	8	3
Average:	3.1	8.9	8.1	8.3	3.6

Appendix 2.13   Summary of page statistics of the interviews

Initials	Original transcript		Formatted transcript		Experience analysed by discipline						
	Size	pages	Size	pages	Int (I)	Ext E)	Con (C)	I + E	I + C	E + C	I+E+C
	(Kb)		(Kb)								
AP	143	4	77	4		X					
BR	95	4	75	5					X		
JT					X						
CH (+lb+ch)			53	3						X	
CE	52	1	33	1		X					
DW (+lb+ch)			53	3						X	
GF	105	4	63	5					X		
IL	209	3	53	4		X					
KD	133	3	45	4	X						
KLv	173	5	60	5							X
JL						X					
LB (+ch+dw)			54	4						X	
LB+CH+DW	47	5									
MC	233	4	66	5	X						
ML	38	3	47	4						X	
MS	80	5	52	6	X						
PA	48	3	47	4					X		
PH	40	4	52	4			X				
RN	?	4	?	4			X				
PS	129	5	62	6					X		
VP					X						
PSw	187	3	52	4	X						
PR	187	4	57	5	X						
PT	115	3	50	3			X				
RS	98	3	46	4							
SC	194	4	54	5		X					
SCh	101	3	51	4							X
SD	114	4	57	5	X						
SW	219	3	49	4	X						
TK	137	4	56	5	X						
TS	108	4	61	5				X			
VW	124	5	69	6	X						
TOTALS		**97**		**121**	**12**	**5**	**3**	**1**	**4**	**4**	**2**

Note: For brevity, the transcribed interviews from the 31 auditors interviewed, a total of 121 formatted pages, are not attached.

APPENDIX 2.14

QUESTION 1

Ref Number	Q1_A_1	Q1_A_2	Q1_A_3	Q1_A_4	Q1_A_5	Q1_A_6	Q1_A_7	Q1_A_8	Q1_A_9	Q1_A_10	Q1_A_11
1											
2	1	4	4	5	4	4	4	4	4	4	4
3	4	4	1	4	4	4	4	4	4	4	5
4	4	4	5	5	4	5	4	4	3	4	5
5	4	4	3	5	1	4	4	5	4	4	5
6	4	3	4	4	2	2	3	4	2	2	4
7	4	4	4	4	4	3	3	4	4	4	4
8	4	4	4	1	4	4	4	4	4	4	4
9	4	5	4	4	4	4	4	4	5	5	5
10	4	5	3	4	5	4	4	4	4	4	5
11	3	3	3	2	4	4	3	3	3	3	4
12	3	2	2	3	2	2	1	4	4	1	4
13	5	4	3	2	1	2	3	4	5	4	3
14	3	3	3	4	4	4	3	3	4	3	4
15	3	4	1	2	3	2	4	4	4	1	4
16	3	4	4	5	4	4	4	4	5	4	3
17	2	4	2	4	4	2	3	4	2	1	2
18	4	4	3	2	5	4	4	4	2	1	4
19	4	2	4	5	5	4	5	5	5	4	5
20	4	3	5	4	4	1	1	4	1	3	4
21	3	4	4	5	5	3	1	4	2	3	5
22	2	3	3	4	4	3	4	3	3	4	4
23	4	5	2	4	4	2	3	3	3	4	4
24	4	4	4	4	4	4	3	4	4	3	4
P1	4	5	4	4	3	5	3	3	4	5	5
P2	5	5	4	5	1	2	4	5	5	5	5
P3	5	3	4	3	4	3	3	4	4	5	4
P4	3	4	1	4	1	4	5	5	2	1	5
P5	4	2	5	5	2	4	3	4	2	4	4
P6	4	4	4	4	4	3	4	3	4	3	2
P7	2	5	4	4	5	4	5	4	4	5	5
P8	5	4	4	5	5	4	5	5	2	2	3
P9	5	5	5	5	5	4	3	5	5	3	5
TOTAL	117	123	110	125	115	108	111	128	113	107	133
AVERAGE	3.66	3.84	3.44	3.91	3.59	3.38	3.47	4.00	3.53	3.34	4.16
St. Agree	5	7	4	10	7	2	4	6	6	5	12
Agree	16	16	15	15	16	17	13	20	14	13	15
Neutral	7	6	7	2	2	5	12	6	4	7	3
Disagree	3	3	3	4	3	7	0	0	7	2	2
St. Disagree	1	0	3	1	4	1	3	0	1	5	0

QUESTION 2

Ref Number	Q2_A_1	Q2_A_2	Q2_A_3	Q2_A_4	Q2_A_5	Q2_A_6	Q2_A_7	Q2_A_8	Q2_A_9	Q2_A_10	Q2_A_11
1											
2	10	2	7	3	2	6	5	4	4	2	1
3	2	7	11	3	4	8	5	6	9	10	1
4	1	7	8	10	2	6	3	5	11	4	9
5	9	3	10	1	8	4	6	2	11	7	5
6	1	6	2	3	9	8	7	5	11	10	4
7	8	5	4	3	4	4	7	7	4	4	3
8	5	5	4	4	1	6	8	8	5	2	3
9	7	11	1	6	8	10	9	3	4	5	2
10	8	11	7	2	4	3	5	6	10	9	1
11	8	8	8	6	1	2	7	7	7	7	4
12	7	8	6	4	9	10	5	1	2	11	3
13	6	5	4	3	2	1	7	8	9	10	11
14	2	3	4	5	6	11	8	7	10	1	9
15	8	4	2	9	7	9	2	3	3	9	2
16	9	11	10	7	6	5	4	1	3	8	2
17	11	1	6	2	3	10	9	4	8	7	5
18	2	3	7	9	1	4	8	5	10	11	6
19	9	11	7	6	4	8	5	3	2	10	1
20	2	10	11	3	4	9	8	5	7	6	1
21	11	5	6	10	1	7	8	3	9	4	2
22	11	8	6	2	5	7	3	9	10	4	1
23	2	7	4	6	8	9	5	10	11	3	1
24	9	8	4	10	5	6	3	7	2	1	11
P1	8	4	9	7	10	2	11	5	6	3	1
P2	1	4	7	5	11	10	9	8	3	6	2
P3	1	10	2	9	7	8	11	6	5	4	3
P4	11	4	10	7	8	6	5	3	9	2	1
P5	4	11	2	1	9	5	8	5	10	3	5
P6	2	11	3	4	9	10	5	6	7	8	1
P7	11	2	7	5	4	3	10	9	8	6	1
P8	3	6	7	1	2	8	4	5	9	10	11
P9	4	1	5	6	7	9	10	2	8	11	3
TOTAL	193	202	191	162	171	214	210	168	227	198	116
AVERAGE	6.03	6.31	5.97	5.06	5.34	6.69	6.56	5.25	7.09	6.19	3.63
1st	4	2	1	3	4	1	0	2	0	2	11
2nd	6	2	4	3	4	2	1	2	3	3	5
3rd	1	3	1	6	1	2	3	5	3	3	5
4th	2	4	6	3	6	3	2	2	3	5	2
5th	1	4	1	3	2	2	8	7	2	1	3
6th	1	2	4	5	2	5	1	4	1	3	1
7th	2	3	7	3	3	2	4	4	3	3	0
8th	5	4	2	0	4	5	6	3	3	2	0

	QUESTION 3				**QUESTION 4**					**Analysis for way of life responses (5)**				
Ref Number	Q3_A_1	Q3_A_2	Q3_A_3	Ref Number	Q4_A_1	Q4_A_2	Q4_A_3			1	2	3	4	5
1				1										
2	3	2	5	2	5	5	5	3	>35-45			3		
3	2	4	5	3	1	1	1	4	>45-55					
4	4	4	5	4	5	4	1	4	>45-55				1	
5	4	4	4	5	1	1	1	3	>35-45					
6	4	4	3	6	1	1	1	4	>45-55					
7	3	4	2	7	5	5	5	4	>45-55				3	
8	**3**	**3**	4	8	4	4	4	2	>25-35					
9	4	4	4	9	5	5	5	3	>35-45			3		
10	5	4	4	10	2	3	3	4	>45-55					
11	4	5	4	11	1	1	1	4	>45-55					
12	5	3	2	12	4	4	4	3	>35-45					
13	5	4	3	13	2	3	4	4	>45-55					
14	4	3	3	14	1	1	1	3	>35-45					
15	4	5	4	15	5	4	4	4	>45-55				1	
16	3	3	4	16	3	1	1	5	>55-65					
17	2	4	4	17	5	5	5	3	>35-45			3		
18	4	4	5	18	5	5	5	4	>45-55				3	
19	4	2	4	19	2	1	1	2	>25-35					
20	2	5	2	20	5	4	4	4	>45-55				1	
21	4	4	5	21	5	1	1	2	>25-35		1			
22	4	4	5	22	5	**3**	**3**	2	>25-35		1			
23	4	4	3	23	5	5	5	5	>55-65					3
24	4	3	2	24	1	1	1	4	>45-55					
P1	4	3	5	P1	**3**	**3**	**3**	1						
P2	4	4	4	P2	1	2	1	5						
P3	3	5	4	P3	1	1	1	3						
P4	2	2	5	P4	5	1	1	4					1	
P5	4	1	4	P5	**3**	**3**	**3**	3						
P6	4	4	5	P6	1	2	2	2						
P7	3	3	4	P7	4	3	1	4						
P8	2	2	2	P8	5	5	**3**	5						2
P9	4	4	5	P9	5	4	4	4					1	
TOTAL	115	114.	124	TOTAL	106	92	85							
AVERAGE	3.59	3.56	3.88	AVERAGE	3.31	2.88	2.66							

St. Agree	3	4	10	Never	9	11	14	1	16-25
Agree	18	16	13	Annually	3	2	1	5	25-35
Neutral	6	7	4	Twice a year	3	6	5	8	35-45
Disagree	5	4	5	All audits	3	6	6	14	45-55
St. Disagree	0	1	0	Way of life	14	7	6	4	55-65

Total no of 5s is | 27 | 0 2 9 11 5

QUESTION 5

Ref Number	Q5_A_1	Q5_A_2	Q5_A_3	Q5_A_4	Q5_A_5	Q5a
1						
2	4	3	4	3	4	
3	**3**	**3**	**3**	**3**	**3**	
4	5	4	4	4	5	
5	**3**	**3**	**3**	**3**	**3**	
6	**3**	**3**	**3**	**3**	**3**	
7	4	4	4	3	3	
8	4	2	4	2	4	
9	4	4	4	4	5	
10	4	5	5	3	3	
11	**3**	**3**	**3**	**3**	**3**	
12	1	1	4	1	1	1
13	4	3	4	2	5	
14	**3**	**3**	**3**	**3**	**3**	
15	4	4	5	4	5	
16	3	5	4	4	2	
17	2	2	3	2	2	
18	5	4	4	4	2	
19	4	4	5	5	4	
20	2	3	4	2	5	
21	2	4	4	2	2	
22	2	2	5	4	4	
23	3	4	4	4	4	
24	**3**	**3**	**3**	**3**	**3**	
P1	4	4	4	3	3	
P2	**3**	**3**	**3**	**3**	**3**	
P3	**3**	**3**	**3**	**3**	**3**	
P4	4	2	5	3	3	
P5	**3**	**3**	**3**	**3**	**3**	
P6	4	3	4	4	4	
P7	4	4	5	3	4	
P8	**3**	**3**	**3**	**3**	**3**	
P9	5	3	5	5	5	
TOTAL	108.00	104.00	124.00	101.00	109.00	
AVERAGE	3.38	3.25	3.88	3.16	3.41	
St. Agree	3	2	7	2	6	
Agree	12	10	14	8	7	
Neutral	12	15	11	16	14	
Disagree	4	4	0	5	4	
St. Disagree	1	1	0	1	1	

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QUESTION 6

Ref Number	Q6_A_1	Q6_A_2	Q6_A_3	Q6_A_4	Q6_A_5	Q6_A_6	Q6_A_7	Q6a
1								
2	4	4	2	5	4	3	4	
3	4	2	2	4	4	1	2	2
4	1	4	2	2	3	1	4	
5	4	4	4	4	5	3	4	
6	3	2	2	2	4	2	2	
7	2	4	1	2	1	2	2	
8	4	4	2	4	4	2	4	
9	1	3	1	1	1	1	1	
10	3	2	2	3	3	1	4	
11	5	4	3	5	5	3	5	3
12	3	5	4	3	3	5	5	
13	4	3	2	1	4	3	2	
14	5	4	3	4	5	3	4	
15	1	2	2	2	1	2	2	
16	2	3	4	4	3	2	3	
17	3	4	2	2	4	2	4	
18	2	4	2	2	4	2	2	
19	2	5	4	4	5	2	1	
20	2	4	3	4	4	2	3	
21	3	2	2	2	2	2	2	
22	2	4	2	4	4	2	2	
23	3	4	4	5	5	2	4	
24	4	3	3	4	3	3	3	
P1	5	**3**	**3**	**3**	**3**	**3**	**3**	
P2	4	4	4	5	5	2	1	
P3	4	2	3	5	4	1	3	
P4	2	1	1	4	1	1	4	
P5	**3**	**3**	**3**	**3**	**3**	**3**	**3**	
P6	1	5	4	2	4	3	3	
P7	3	1	2	3	2	1	5	
P8	3	4	2	5	4	4	4	
P9	3	3	3	3	3	3	3	
TOTAL	95.00	106.00	83.00	106.00	110.00	72.00	98.00	
AVERAGE	2.97	3.31	2.59	3.31	3.44	2.25	3.06	
	St. Agree	3	3	0	6	6	1	3
Agree	8	14	7	10	12	1	10	
Neutral	10	7	8	6	8	10	8	
Disagree	7	6	14	8	2	13	8	
St. Disagree	4	2	3	2	4	7	3	

Ref Number	QUESTION 7 A			QUESTION 7 B					QUESTION 7 C		
	Q7a_A_1	Q7a_A_2	Q7a_A_3	Q7b_A_1	Q7b_A_2	Q7b_A_3	Q7b_A_4	Q7b_A_5	Q7c_A_1	Q7c_A_2	Q7c_A_3
1											
2											
3	6	6	6	2	2	2	2	1	1	2	1
4											
5	3	6	2	1	2	2	2	1	2	1	1
6	2	6	2				2			2	
7	1	2	3	1	2	2	2		2	1	1
8											
9		2	1				2		2		
10											
11	1										
12		1		1	2	1	2	2	2	1	1
13	2	3	6	1	1	2	1	2	2	1	2
14	2	4	2	1	1	2	2	1	2	1	1
15											
16	2	3	6	1	1	2	1	1	2	1	1
17		1							2	1	1
18											
19		1		1	1	2	2	1	2	1	1
20	2	5	1	1	2	2	1	1			
21		2									
22											
23	2	6	2	2	2	1	1	1	2	1	1
24											
P1											
P2											
P3											
P4		2							2		
P5											
P6											
P7											
P8	1	5	1		2	2	2		2		
P9	3	6									

QUESTIONS 9 B, C, D

Ref Number	Q9b		Q9c		Q9d_1	Q9d_2	Q9d_3	Q9d_4			
1											
2	>35-45	3	Female	1	CCAB		MIIA	Other	1	3	4
3	>45-55	4	Female	1			MIIA			3	
4	>45-55	4	Male	2				Other			4
5	>35-45	3	Male	2	CCAB				1		
6	>45-55	4	Male	2	CCAB				1		
7	>45-55	4	Female	1	CCAB		MIIA		1	3	
8	>25-35	2	Male	2				Other			4
9	>35-45	3	Female	1			MIIA	Other		3	4
10	>45-55	4	[Not Answered]	0			MIIA	Other		3	4
11	>45-55	4	Female	1				Other			4
12	>35-45	3	Female	1	CCAB		MIIA		1	3	
13	>45-55	4	Male	2	CCAB			Other	1		4
14	>35-45	3	Male	2							
15	>45-55	4	Male	2			MIIA			3	
16	>55-65	5	Male	2				Other			4
17	>35-45	3	Male	2			MIIA	Other		3	4
18	>45-55	4	Male	2		PIIA					
19	>25-35	2	Male	2	CCAB			Other	1		4
20	>45-55	4	Male	2	CCAB		MIIA		1	3	
21	>25-35	2	Female	1				Other			4
22	>25-35	2	Female	1				Other			4
23	>55-65	5	Male	2				Other			4
24	>45-55	4	Male	2				Other			4
P1		1		2							4
P2		5		1						3	4
P3		3		1							4
P4		4		2					1		4
P5		3		2					1	3	
P6		2		1					1		
P7		4		1						3	
P8		5		1							4
P9		4		1					1		

16-25	1	3.1%	Male	17	53.1%	CCAB	12	
25-35	5	15.6%	Female	14	43.8%	MIIA		12
35-45	8	25.0%	Not ident	1	3.1%	Other		19
45-55	14	43.8%						
55-65	4	12.5%				CCAB + MIIA	5	
28						MIIA / Other	4	
						CCAb / Other	3	
						All 3	1	

QUESTION 9 D (CONT), E, F

Ref Number	Q9dSpecified_4	Q9e	Q9f_A_1	Q9f_A_2	Q9f_A_3
1					
2	MSc in Audit, Management & Consultancy	Masters	6		
3		Diploma	6		
4		Degree	1	6	6
5		Degree	6		
6		Degree	6	6	
7		Masters	6	2	6
8	CA, CIA	Degree	6	2	
9	Currently studying for IRM Diploma in Risk Management	A level	6		
10	FIIA	Degree	6	1	
11	PIIA Student	Diploma	6		
12		Diploma	6		
13	FIIA	Masters	6	5	4
14		Degree	6	4	
15		A level	6		6
16	QICA, CEng, MBCS, CITP	Degree			6
17	CIA, CFSA, Banker	Degree	3		
18		Diploma	3		
19	CISA	GCSE	3		
20		[Not Answered]	3		
21	ACA	Degree	4	3	
22	ACA	Degree	1	5	
23	ACA	Degree	6	4	
24		PhD	6		

P1
P2
P3
P4
P5
P6
P7
P8
P9

Ref Number	Q9g_A_1	Q9g_A_2	Q9g_A_3	Q9g_A_4	Q9g_A_5	Q9h_A_1	Q9h_A_2
1							
2			4				
3				6			
4			6		1		
5					6		
6					6		
7					6		
8				1			
9			4				
10				6			
11		6					
12	6	6					
13	6	1	4	5	6	Full time	Part time
14				6			
15	4	4	6	6			
16					6		
17				3		Part time	
18		6					
19			1				
20			5				
21			2				
22					1		
23					6		
24					5		
P1							
P2							
P3							
P4							
P5							
P6							
P7							
P8							
P9							

Appendix 3　Detailed results from the practical application of behavioural auditing – summarised in chapter 6

Obs Ref:	Exp cat:	Q. Ref	Comments from the feedback sheets completed by the observers of the five scenarios.
Qualitative feedback on scenarios (sorted by experience)			
1.11	1	1	*I didn't see anything to make me doubt him.*
1.14	2	1	*He tries to look relaxed and open, but I doubt that.*
1.15	4	1	*Does not concentrate – pays no serious attention to the critical questions.*
2.01	1	1	*Does not take interview very seriously.*
2.02	1	1	*Seems a little too relaxed. Audit more scepticism seems to be useful.*
2.03	1	1	*Seems a little bit too relaxed.*
2.10	1	1	*Hesitation affects the reliability. Too co-operative in interview, seemed rehearsed. [!!]*
2.11	1	1	*Seems very overly confident in his mannerisms towards answering the questions. This makes me want to question [the] overall honesty of his answers.*
2.12	1	1	*Seemed very confident – maybe too confident? Body language was very open and confident.*
3.06	2	1	*Seemed confident and competent*
3.09	2	1	*Seemed quite confident in his answers – seemed honest.*
3.10	2	1	*Generally he appeared fairly efficient but his answers to some detailed questions suggested he was either not aware or rather indifferent, especially re checks. He did not always inspire confidence.*
3.11	3	1	*Hands formed a barrier in front of face on occasion. Possibly missing something as picked up coffee cup as a distraction.*
3.12	3	1	*There was certain leading questions asked making the client answer what he perceived the best answer was.*
3.15	4	1	*He seemed hesitant and needed to defend himself a few times. He seems not to be a credible source of information.*
4.03	1	1	*He was not efficient and honest but could have been effective if available.*
4.04	1	1	*Not effective because he relies too much on the managers and on systems without using his logic.*
4.06	1	1	*Body language seems to lean to hiding something as maybe under some senior[management]pressure over long periods*
4.09	1	1	*He seemed over confident towards 'false signature'. He shouldn't have 'old systems' at this time, its not efficient and effective, but he seemed honest.*
4.14	1	1	*Looks like hiding something. Gesture is protecting himself*
4.15	1	1	*Probably effective but not so efficient due to management system. Does seem he is hiding something*

4.18	2	1	*He seems to be relatively efficient, effective, honest – however, I'm sceptical because of the limited level of details he has provided to specific questions and seems aggressive*
1.11	1	2	*I didn't see any differences...to scenario 1.*
1.13	1	2	*Crossing his hands like he is trying to keep himself from [auditor].*
1.14	2	2	*He is definitely closed, but he freaks out when certain questions asked and the body language shows that he is closed and does not to tell what he should not tell*
2.03	1	2	*Looks more competent than in scenario 1.*
2.05	1	2	*Invoices should be supported by a goods received note in order to be paid.*
2.10	1	2	*No hesitation, lack of body language, seemed more confident.*
2.11	1	2	*His answer technique was quite stern in parts. He was not as overly confident as scenario 1.*
2.12	1	2	*[He was] quite aggressive with his answers and seemed to want to overpower the auditor with his voice.*
2.15	1	2	*He was quite unsure about certain subjects.*
2.17	1	2	*Uncomfortable. Stuttery. Aggressive?*
3.05	2	2	*Obviously thrown by VAT question, less sure of how to respond, without seeing scenario 1 would have scored higher*
3.06	2	2	*He looked more uncertain over some questions, and a bit counter-offensive compared to scenario 1*
3.09	2	2	*He did a bit of frowning / raising eyebrows which makes me think maybe he wasn't totally honest?*
3.10	2	2	*Much more confident in responses. VAT number response suggested huge inefficiency but otherwise a fairly reliable interviewee.*
3.11	3	2	*Frowning on occasional questions. Abrupt responses. Slight offence that he is being questioned.*
3.12	3	2	*A lot of frowning – making things up as he was going along.*
3.15	4	2	*Facial expression reveals some form of tension probably there is incongruence between what he is saying and what he knows to be true.*
4.04	1	2	*He seems more confident of what he is doing, also showing awareness that not everything is perfect.*
4.05	1	2	*There was certain areas where Gary was reluctant and unsure about such as VAT.*
4.06	1	2	*Major difference [between videos 1& 2]: 1) seemed very scripted - and too confident –almost as though the answers are 'rehearsed'. 2) Paused to take a drink from his coffee-cup when asked about false cheques/signatures ... could be lying, as such a question was not prepared for*
4.10	1	2	*Seemed to be defensive, nervous at beginning. Slightly more arrogant than in the 1ˢᵗ interview.*
4.14	1	2	*Fairly nervous, I think Gary is lying when he drank from the cup.*
4.15	1	2	*He still has problems with the management system yet he seems more confident and assured answering the questions!!*
4.18	2	2	*Gary seemed more honest but much less effective and efficient – his*

			confidence was perhaps an indicator of this
1.03	1	3	*His behaviour looks like he is not really worried, however, he may be good*
1.11	1	3	*Didn't notice eye/mouth movements, but in general his body language was more depressive, and his face and voice was tetchier, or more impatient.*
1.13	1	3	*Crossing hands – keeping distance with auditor.*
1.14	2	3	*He is very tense and closed, answers short and quickly he feels uncomfortable. Very poor eye contact.*
1.17	6	3	*I was looking at the 'holistic' body language. I think he is hiding information, not being totally honest, which raises questions in me regarding why?*
2.03	1	3	*Seems he has prepared in advance what he ought to say, and he seems a little bit nervous.*
2.10	1	3	*Hands dipped together. Moves only when anxious.*
2.11	1	3	*Smiling a lot?*
2.12	1	3	*Seemed very calm and relaxed. He kept smiling?*
2.16	1	3	*Quick to answer, uncertain to me.*
3.06	2	3	*He seemed quite nervous and concerned , especially over mention of the VAT question*
3.07	2	3	*No – but jiggly leg also caused concern over his honesty.*
3.11	3	3	*Inconsistent eye-contact noticeable. Robotic responses. Did not really want to be there.*
3.12	3	3	*Very defensive.*
3.15	4	3	*When he took a drink, it was as if he was trying to cover his face.*
4.05	1	3	*Looks away for certain questions and <u>nervous</u>*
4.06	1	3	*Didn't stop to think, too stiff, not thinking too much about his answer*
4.10	1	3	*Better eye contact*
4.15	1	3	*He seems very tense and constantly anxious about answering any question! It seems that something is wrong*
1.11	1	4	*Seemed a lot more nervous here; tapping table, touching his face with his hands; crossed arms – seemed very defensive. Was strange to see how he tensed and relaxed according to each question*
1.13	2	4	*This time he lies, definitely.*
1.14	2	4	*Touches his mouth a lot, defensive stance, tense, seems relaxed when the interview came to an end. Neck/tie ruffling*
1.17	6	4	*Defensive use of hands to the face and throat – interrupting answers by drinking: thinking time. Hand on hip; power/domination?*
2.03	1	4	*Didn't know what to do about hands.*
2.08	1	4	*Tense, arm folding, slightly defensive, tapping fingers, appears to be nervous and anxious, looking away down left.*
2.10	1	4	*Crossed arms, played with his drink, touched his face, leaned forward, stuttering. All considered, over anxious.*

2.11	1	4	*Frowning a lot – seemed confused, like he had to think of an appropriate answer.*
2.12	1	4	*Kept moving around and fidgeting. Did not look relaxed.*
3.02	2	4	*Looks up unusually on 1 or 2 occasions*
3.04	2	4	*Smiling* (as he did) *once interview was over would give cause for concern with regards to honesty and efficiency*
3.06	2	4	*He was quite defensive in the way he crossed his arms and covered his mouth – as if to try and cover up things. Plus, he looked agitated and bored as he was strumming his fingers and checked his watch*
3.07	2	4	*Hand frequently covered mouth when responding to earlier questions – query honesty.*
3.09	2	4	*Was covering mouth – as if he really didn't want interviewer to hear clearly what he was saying. Quite defensive in body language. Tapping hands as if to say – why am I here?*
3.10	2	4	*Concerns are not so much about honesty but more about integrity of interviewee. Very defensive posture through much of interview. Over-confident at end.*
3.11	3	4	*He was relieved that the interview had finished. He was not comfortable! Gave impression that he was not entirely comfortable with his systems or that he had something to hide.*
3.12	3	4	*Very much more on the defensive from the start, as the interview continued he loosened up but started to tense up when questions got harder. Overall receptive towards the end*
3.14	4	4	*He came across as being defensive and twitching at awkward questions.*
4.05	1	4	*Hands open tensed when lying, something fishy, false signatures a major concern, along with his red-book.*
4.06	1	4	*Folded arms when asked about false signatures = defensive. Then realised his body language and changed it knowingly. Lot of shuffling and covering his mouth while answering. Change of leaning (front/back) depending on the question, eg: leaned forward when trying to convince about an answer.*
4.10	1	4	*Nervous*
4.15	1	4	*He seems quite relaxed most of the time, yet some movements like the tie straightening are a bit dodgy!!*
1.02	1	5.1	*Hides his face. (re A12) Too calm when talking about system*
1.04	1	5.1	*On the last interview Gary looked un-honest*
1.05	1	5.1	*Throughout he looked defensive. On his last interview he looked decidedly shaky.*
1.06	1	5.1	*In the last interview he definitely looked tense, his voice dropped and he looked uncertain and not relaxed*
1.07	1	5.1	*... his body language showed something was not right. My impression changed as his body language changed.*
1.08	1	5.1	*His body language indicates that he may lie.*
1.09	1	5.1	*He fidgeted too much and would not always look at the interviewer.*
1.10	1	5.1	*I am sure that he isn't honest and, moreover, I doubt if he is*

			efficient and effective at an excessive degree.
1.11	1	5.1	*Seemed scared, like he had something to hide or wad trying to be too eager to justify himself. On the other hand, if I met him for the first time, I'd wonder if he was very shy.*
1.12	1	5.1	*Looking away. Turn the attention by drinking. Touching face. One hand below the desk therefore he won't be honest.* **(Re last point, I note that the Observer is French)**
1.14	2	5.1	*It varies from one interview to another, for the most part he is very defensive and maybe hiding. But it could also come from fear or him being worried a lot.*
1.15	4	5.1	*Might be talking lies*
1.16	5	5.1	*Overall body language and body movements made me wonder and doubt about his honesty, efficiency and effectiveness.*
2.01	1	5.1	*Especially in the last interview, he seemed very nervous and maybe he is not honest*
2.02	1	5.1	*He seems nervous, slightly more unsure about several facts, lack of scepticism.*
2.03	1	5.1	*In some interviews he was very nervous, talking fast, moving a lot, and looking away, especially in [scenarios] 4 and 5.*
2.05	1	5.1	*From the changes in body movements and posture, it indicates he is tense and that brings some dishonesty.*
2.08	1	5.1	*Body language appears anxious.*
2.09	1	5.1	*Am very concerned because during [scenario] 4, it shows he is not sincere or honest.*
2.10	1	5.1	*Body langauge and pace of talking changed vastly*
2.11	1	5.1	*He was very nervous, uptight, unsettled throughout the interview. He was stuttering his words, was over-powering sometimes and others quiet.*
2.12	1	5.1	*He was very jumpy, he stuttered, answered really quick and sharply, couldn't keep still.*
2.13	1	5.1	*In the latter[scenarios], it seemed that he is hiding something.*
2.14	1	5.1	*Seems very nervous, defensive, acting as though he has something to hide, hasn't told the whole truth.*
2.15	1	5.1	*Very nervous. Has something to hide. Abrupt.*
2.16	1	5.1	*Changes in tone and body language suggest possible hidden issues, needs to be pursued.*
2.17	1	5.1	*Very nervous. Lots of body movement. Stuttery speech*
3.01	1	5.1	*He … always seems very tense, he was avoiding eye contact and he gave the feeling that he was trying to avoid something*
3.03	2	5.1	*He looked nervous and tense – therefore concerned about what the audit may uncover*
3.04	2	5.1	*Dishonesty, possibly fraud or failure to carry out duties in appropriate manner and adhere to policy and procedures*
3.05	2	5.1	*Final interview gave evidence of someone who is extremely nervous/uncertain about the focus on their work, eg: abrupt responses, hand in front of mouth, pauses, fiddling*
3.06	2	5.1	*[In the last scenario] He is a bit twitchy and defensive on quite a few occasions and seems to get a little aggressive.*

3.07	2	5.1	*Even if he is honest, his behaviour in the last three interviews raised questions over his efficiency and effectiveness*
3.08	2	5.1	*The body language varies each video, giving the viewer a different impression of whether he is efficient, effective and honest.*
3.09	2	5.1	*He seemed quite defensive at times in his body language, nervous and obviously a bit vague in scenarios 4 and 5 about VAT, and seemed a bit weary about answering it.*
3.10	2	5.1	*That he is not thorough; relies too heavily on 'system'. Scenario 5 would raise questions about his efficiency/effectiveness rather than honesty.*
3.11	3	5.1	*Last scenario started very tense. He was relieved that first question was easy to answer, but agitated with the subsequent probing questions.*
3.12	3	5.1	*There were gaps in responses, lots of hesitations and blank looks, murmuring, etc*
3.14	4	5.1	*He seemed to be avoiding eye contact and getting more fidgety with the questions covered … not confident in answering.*
3.15	4	5.1	*From his body language, and the effort he expended to try and defend himself. Is seems as though he was covering up something.*
4.01	1	5.1	*He is not the most honest …. He gets more nervous and the video tells it*
4.02	1	5.1	*Some of the internal control procedures are incorrect. In my view there are some potential risks that should be taken into account*
4.03	1	5.1	*He was not efficient, effective or honest in some of the videos.*
4.04	1	5.1	*There are definite problems in the EasyPay system and in the invoicing process.*
4.05	1	5.1	*Main concerns are: the in-house systems are not good. Very tense and nervous*
4.06	1	5.1	*Tense in all sessions. Doesn't seem relaxed in his role. Could be under pressure from a superior. Sometimes scripted, sometimes nervous – over/under confident.*
4.07	1	5.1	*His expression and gestures varied from time to time*
4.08	1	5.1	*He's not honest on some issues because he's quite nervous when giving some of the answers, especially in the 5th scenario*
4.09	1	5.1	*He seemed to prevent the mistakes and make some lyings during answer questions. Gestures changed and not so confident answering for some questions*
4.10	1	5.1	*Body language, posture , voice*
4.11	1	5.1	*Doesn't seem to be honest, and seems efficient in some cases*
4.12	1	5.1	*Is expression, hand movements and eye contact are changing in each video*
4.13	1	5.1	*There could be fraudulent activity going on*
4.14	1	5.1	*He may bring personal life emotion to affect his work.*
4.15	1	5.1	*In some cases he seems quite honest, yet there are flaws in the system, in others he seems dishonest as well*
4.16	1	5.1	*Lack of honesty, particularly with regard to the possibility of false signatures,: makes inefficient and ineffective impression in some videos*

4.17	1	5.1	*Effectiveness of guidelines for procedures, efficiency in his working and his staff and honesty doubts are huge. Some actions and statements are ambiguous.*
4.18	2	5.1	*Body language gives insight into lack of efficiency, effectiveness and honesty over the videos*
1.05	1	5.2	*I would concentrate my audit on the easy-pay system*
1.06	1	5.2	*Confirmation and legibility of contractors, authorisations and payments' system. Control objectives for system.*
1.09	1	5.2	*Signatures. VAT numbers.*
1.11	1	5.2	*False signatures, invoices*
1.13	2	5.2	*I would check areas [in fraud investigation]where he was not honest*
1.14	2	5.2	*Manual checks. VAT payments.*
1.15	4	5.2	*Authorisation of invoices by managers*
1.16	5	5.2	*Probably in the area of payment protection as well as approving of material amount of payment.*
1.17	6	5.2	*System of controls – suspect a number of controls missing.*
2.01	1	5.2	*Concentrate on checking cheques and invoices*
2.04	1	5.2	*Computer systems, false signatures, set up of new creditors.*
2.08	1	5.2	*Cheque checking and authorisation system. Managers' procedures. Computer system. Invoice checking.*
2.09	1	5.2	*Checking of al invoices and cheques. Assess the computer system.*
2.10	1	5.2	*The control systems.*
2.12	1	5.2	*Previous audits have taken a sample of invoices. Maybe this audit should take a different angle and look into areas that they haven't previously looked at.*
2.17	1	5.2	*Carry out VAT work. Investigate false signatures and general invoices.*
3.03	2	5.2	*Concentrate on vital processes such as authorisation and validation checks*
3.04	2	5.2	*I would concentrate on authorisation and the authorised signatory lists to check towards particularly made payments*
3.06	2	5.2	*I would carry it out as stated but would possibly consider focusing in on the strategic control objectives for the area. Would discuss with manager.*
3.07	2	5.2	*May concentrate on his role in the process to check efficiency and effectiveness.*
3.08	2	5.2	*Duplicate payments of invoices – where payment amounts are the same. Also check management signatures.*
3.09	2	5.2	*Yes, I would choose to look at duplicate invoices, VAT and the system integrity in picking up duplicates – as it may be out of date.*
3.10	2	5.2	*Would want to check the thoroughness of his work/checks. Earlier scenarios inspired more confidence in all 3 areas.*
3.11	3	5.2	*Checking authorised signatures on all invoices. Checking robustness of systems to spot duplicate invoices.*
3.12	3	5.2	*No – I'll stick with the original plan – see how testing outcomes*

			come out, if significant issues noted then I'll seek to extend areas of testing. After all, this is a basic Accounts Payable audit, so surely the risks should be known.
3.13	3	5.2	*Possibly test a larger sample to check signatures agree to signatory list. NB questions 5 to 8 led to fidgeting , taking sips of water, etc.*
3.14	4	5.2	*May want to have a closer look at the process he is involved in, transactions he's authorised, etc.*
4.02	1	5.2	*Yes, I would do checks on the signatures given by the manager.*
4.05	1	5.2	*[check] New creditors, pay invoices, false signatures, VAT*
4.09	1	5.2	*Backgrounds, working records of Gary; company's financial data*
4.10	1	5.2	*Concentrate more on how genuine line manager's systems are and if VAT numbers are included. Also look at where IT system works and how it performs*
4.11	1	5.2	*Signatures, ……..VAT, etc*
4.12	1	5.2	*Carry out checks with ... managers and departmental requirements.*
4.15	1	5.2	*Petty cash, credit notes, computer system, line managers, system of payments*
4.16	1	5.2	*Check signatures*
4.18	2	5.2	*All the areas Gary doesn't seem to know much about , and appeared to be overly defensive – quick to respond.*
1.02	1	5.3	*Interesting but difficult [as] someone can hide fault perfectly*
1.07	1	5.3	*Having seen these interviews, it is very important to study body language because it can reveal so many things, especially how honest someone is.*
1.10	1	5.3	*The body language plays an important role in deciding if the person is lying. However, we have to be careful in order to understand some kinds of attitudes.*
1.11	1	5.3	*Was interesting but very subtle at the start*
1.12	1	5.3	*Interpretation of face can be first impression, but to be on judgement we must check the answer – we can't say "he is a liar" because he is nervous. We must therefore be very careful*
1.15	4	5.3	*Because of cultural differences, it was difficult to interpret some of the actions observed.*
1.16	5	5.3	*Observation is one of the audit methods and by doing so auditors should observe auditee's behaviour overall.*
2.08	1	5.3	*Stuttering, twitching, hand/arm gestures, looking left many times [and] down, touching face. Appears dishonest, tense at times, defensive.*
2.10	1	5.3	*Lazy answer, fast paced answer hands fluctuated wildly, gave unsure answers, interruptions, stuttering, leaning forward when anxious, avoided eye contact. All factors cause doubt of his behaviour.*
2.12	1	5.3	*He seemed confident when asked if they may check the invoices ... a fraud could be well hidden – look into areas that he is not predicting.*
2.17	1	5.3	*Uncomfortable body language. Quick ??? answers.*

3.01	1	5.3	*At the beginning I thought he was an efficient employee, but at the end I was certain he was dishonest*
3.06	2	5.3	*Quite an interesting area – not really too sure of before this. Will consider it more in future audits I conduct. It was interesting to see the same words portrayed and acted in very different manners – giving a completely different opinion of the person and the area.*
3.09	2	5.3	*Very interesting to see over the 5 scenarios how body language can change your impression of somebody without actually changing any wording.*
3.10	2	5.3	*Scenario 5 posed most concerns re his effectiveness/efficiency. No major concerns re honesty but more about the robustness of the systems and Gary's 'thoroughness'.*
3.11	3	5.3	*Changes in scenarios quite subtle (except last!)*
4.01	1	5.3	*I think the video might not be efficient enough cause when people get use to I, they become very good at it, so you can not tell right away*
4.05	1	5.3	*Behaviour is extremely important but at the same time it is extremely important to have hard EVIDENCE*
4.06	1	5.3	*Could be the pawn in a larger governance fraud; the over/under confidence in different scenes changes his placement in this game.*
4.07	1	5.3	*The interviewee's behaviour may influence the outcome of the auditing interview and influence the judgement of the auditor*
4.11	1	5.3	*Maybe it could be useful if know some behavioural profiles beforehand as students can be advised to do some research on this……..*
4.15	1	5.3	*Experience after full training is the only way to have an incisive view upon the behaviour of body language of an audited person*
1.01	1	Nil	
2.06	1	Nil	
2.07	1	Nil	

Appendix 3.2 – Raw Data from the summary of the feedback of the scenarios by the students.

For brevity, the completed feedback sheets from the 67 students, a total of 335 pages, are not attached.

| Notes - student reference: 1=Birmingham Univ day course (Auditing MSc), 2 = Glamorgan Univ (BSc Forensic accounting), 3=Birmingham Univ block course (Auditing MSc), 4= Cass MgT course (MSc) |

Scenario	1	Audit exp			Effective	Effective	Effective	Effective	Effective		Efficient	Efficient	Efficient	Efficient	Efficient		Honest	Honest	Honest	Honest	Honest	
Student	Celtic?		cat	Tot/cat	totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not	
2.01		0	1			15		5		20				20		20		20				20
2.02		0	1			10	10			20				20		20			20			20
2.03		0	1				10	10		20				20		20			20			20
2.04		0	1		10	8		2		20	12	4	4			20		12		2	6	20
2.05		0	1				10			10				5		5	5	5				5
2.06		0	1		8		10		2	20		10	10			20			15		5	20
2.07		0	1			10		10		20			10	10		20	5				15	20
2.08		0	1			16		4		20		18		2		20			18		2	20
2.09		0	1			10	10			20		15	5			20			3	17		20
2.1	y	0	1				20			20	20					20				20		20
2.11	y	0	1		10	10				20	10	10				20				20		20
2.12	y	0	1		10	10				20	10	10				20				20		20
2.13	y	0	1				10	10		20		10	10			20				10	10	20
2.14	y	0	1			10	10			20	10	10				20				10	10	20
2.15	y	0	1		10	10				20	5	5	10			20	10				10	20
2.16	y	0	1		2	2	3	10	3	20	3	10	3	2	2	20	10	3	3	2	2	20
2.17	y	0	1			15	5			20	12			8		20				10	10	20
1.01		0	1			10	10			20		15	5			20			10	5	5	20
1.02		0	1			15	5			20		15	5			20		15	5			20
1.03		0	1		7	3			4	14	9	2			5	16	5	2			2	9
1.04		0	1		7	7	3	3		20	7	7	3	3		20	12	5	2	1		20
1.05		0	1		15	5				20	18	2				20	10	5	4	1		20
1.06		0	1		10	4	3	2	1	20	11	5	4			20	10	4	4	5	1	24
1.07		0	1		1	3	10	6		20	2	2	4	12		20		3	2	15		20
1.08		0	1		10	5	5			20	10	10				20	10	5	5			20
1.09		0	1			15	5			20		15	5			20		5	10	5		20
1.1		0	1		5	5	2	4	4	20		3	1	8	8	20	3	3	4	8	2	20
1.11		0	1			15	5			20		17	3			20		15	5			20
1.12		0	1		5	10	5			20	4	10	6			20		12		8		20

3.01	0	1	30		15		1	3	1	20	13		3	3	1	20	14		2	1	3	20
4.1	0	1				5	15			20		5	10	5		20			5	10	5	20
4.2	0	1				5	5	10		20	8	2	8	2		20	5	5	7	3		20
4.3	0	1			15		5			20		5		15		20			5		15	20
4.4	0	1					3	10	7	20	10	5	5			20			10	5	5	20
4.5	0	1			3	10	2	5		20	2	10	3	5		20	3	10	2	5		20
4.6	0	1				20				20			20			20			20			20
4.7	0	1				9		11		20		18		2		20	10				10	20
4.8	0	1				15	5			20	10	10				20				15	5	20
4.9	0	1				10	10			20		10		10		20			10	5	5	20
4.1	0	1				15	8			23		15	5			20				12	8	20
4.11	0	1			10		10			20	20					20					20	20
4.12	0	1			2			10	8	20	4	2		7		13			7	5	8	20
4.13	0	1			12			8		20	8	10		2		20	10	8			2	20
4.14	0	1						5		5			10			10					5	5
4.15	0	1					10	10		20			10	10		20					20	20
4.16	0	1				5	15			20			10	10		20				15	5	20
4.17	0	1	47			5	10	5		20		5	10	5		20				10	10	20
4.18	0-1	2			13	4	3			20	13	4	3			20	12	2	6			20
1.13	0-1	2			2	16		2		20		18		2		20		20				20
1.14	0-1	2			18	2				20	18	2				20	10	8	2			20
3.02	0-1	2				18	2			20		18	2			20			16	4		20
3.03	0-1	2				5	15			20		5	15			20				10	10	20
3.04	0-1	2				5	15			20			20			20				20		20
3.05	0-1	2			15		3	2		20	12	8				20	18		2			20
3.06	0-1	2			10	10				20		5	15			20		5	15			20
3.07	0-1	2				16	4			20			17	3		20			15		5	20
3.08	0-1	2			3	15	2			20	3	15	2			20	1	9	8	1	1	20
3.09	0-1	2				19	1			20		19	1			20	20					20
3.1	0-1	2	12		16	1	1	2		20	14	3		1	2	20	17	2	1			20
3.11	2-5	3				3	15	2		20	3	15	2			20	15	3	2			20
3.12	2-5	3			16	3	1			20	14	2	4			20	13	3	4			20
3.13	2-5	3	3			10	10			20	20					20	20					20

1.15	6-10	4			2	5	1	12		20	2	13			5	20	2	10		8		20
3.14	6-10	4			16	4				20	18	1	1			20	17	2	1			20
3.15	6-10	4	3		2	2	5	4	7	20		1	5	2	10	18		2	2	4	12	20
1.16	11-15	5	1			15		5		20		10		10		20	15	5				20
1.17	15+	6	1			2	7	9	2	20		2	7	9	2	20	2		4	12	2	20
Total	67	103	97		280	467	335	191	39		300	493	241	233	35		301	330	320	289	63	
Average		1.5			4.18	6.97	5.00	2.85	0.58		4.48	7.36	3.60	3.48	0.52		4.49	4.93	4.78	4.31	0.94	
Average %					21%	35%	25%	14%	3%		22%	37%	18%	17%	3%		22%	25%	24%	22%	5%	
Analysis by experience																						
TOTAL	0	1			125	223	152	69	15		156	205	91	113	16		106	163	180	99	30	
Average %					21%	38%	26%	12%	3%		27%	35%	16%	19%	3%		18%	28%	31%	17%	5%	
TOTAL	0-1	2			64	107	43	6	0		52	103	57	6	2		71	85	47	16	1	
Average %					29%	49%	20%	3%	0%		24%	47%	26%	3%	1%		32%	39%	21%	7%	0%	
TOTAL	2-5	3			16	16	26	2	0		17	37	6	0	0		48	6	6	0	0	
Average %					27%	27%	43%	3%	0%		28%	62%	10%	0%	0%		80%	10%	10%	0%	0%	
TOTAL	6-10	4			20	11	6	16	7		20	15	6	2	15		19	14	3	12	12	
Average %					33%	18%	10%	27%	12%		33%	25%	10%	3%	25%		32%	23%	5%	20%	20%	
TOTAL	11-15	5			0	15	0	5	0		0	10	0	10	0		15	5	0	0	0	
Average %					0%	75%	0%	25%	0%		0%	50%	0%	50%	0%		75%	25%	0%	0%	0%	
TOTAL	15+	6			0	2	7	9	2		0	2	7	9	2		2	0	4	12	2	
Average %					0%	10%	35%	45%	10%		0%	10%	35%	45%	10%		10%	0%	20%	60%	10%	
					225	374	234	107	24		245	372	167	140	35		261	273	240	139	45	

Scenario		2	Audit exp		Effective	Effective	Effective	Effective	Effective		Efficient	Efficient	Efficient	Efficient	Efficient		Honest	Honest	Honest	Honest	Honest	
Student		cat	Tot/cat		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not	
2.01		0	1			15	5			20		15	5			20		20				20
2.02		0	1			15	5			20			20			20		15	5			20
2.03		0	1			20				20		10	10			20		15	5			20
2.04		0	1		10	5	2	3		20	10	4	6			20	8	2	5	5		20
2.05		0	1					10		10		5				5	5					5
2.06		0	1			10	10			20		5	15			20			10	5	5	20
2.07		0	1			15	5			20		15	5			20	10		5	5		20
2.08		0	1			16		4		20		16		4		20			12		8	20
2.09		0	1			17	3			20	12			8		20		17	3			20
2.1	y	0	1		20					20	20					20	20					20
2.11	y	0	1		10	10				20	20					20		20				20
2.12	y	0	1				10	10		20			10	10		20				10	10	20
2.13	y	0	1		2	3	10	3	2	20	2	10	5	1	2	20	2	2	3	10	3	20
2.14	y	0	1			10	10			20			10	10		20			10	10		20
2.15	y	0	1				10	10		20			10	10		20			10	10		20
2.16	y	0	1		2	2	3	10	3	20	2	3	10	3	2	20	2	3	10	3	2	20
2.17	y	0	1			10	5	5		20	8		4	8		20			5	12	3	20
1.01		0	1		0	15	5	0	0	20	0	10	10	0	0	20	0	15	5	0	0	20
1.02		0	1		0	10	2	8	0	20	0	10	0	10	0	20	0	8	2	10	0	20
1.03		0	1		10	5	0	0	0	15	15	8	0	0	0	23	9	12	0	0	0	21
1.04		0	1		8	8	2	2	0	20	8	8	2	2	0	20	13	5	2	0	0	20
1.05		0	1		12	4	4	0	0	20	12	4	4	0	0	20	4	3	10	2	1	20
1.06		0	1		10	5	2	2	1	20	8	8	3	1	0	20	4	4	3	6	3	20
1.07		0	1		2	15	3	0	0	20	3	14	3	0	0	20	0	12	6	2	0	20
1.08		0	1		5	10	5	0	0	20	0	4	10	6	0	20	0	0	5	10	5	20
1.09		0	1		0	0	10	5	5	20	0	0	15	5	0	20	0	0	5	10	5	20
1.1		0	1		0	0	12	4	4	20	0	1	3	8	8	20	3	5	2	8	2	20
1.11		0	1		0	15	5	0	0	20	0	17	3	0	0	20	0	15	5	0	0	20
1.12		0	1		5	10	5	0	0	20	4	10	6	0	0	20	2	13	0	5	0	20
3.01		0	1		13		1	1	5	20	13		1	2	4	20	11		1	2	6	20

4.1	0	1				5	5	10		20		5	15	10		30				10	10	20
4.2	0	1				4	10	5	1	20	1	4	10	4	2	21	1	3	15	1		20
4.3	0	1				15		5		20	5			15		20	20					20
4.4	0	1			3	7	5	5		20	10	5	5			20			10	10		20
4.5	0	1				15		5		20		15		5		20			20			20
4.6	0	1				20				20				20		20					20	20
4.7	0	1				10	10			20		5		15		20		18		2		20
4.8	0	1				10	5	5		20	5	10	5			20				15	5	20
4.9	0	1			1	3	7	5	4	20	2	6	7	5		20	4	7	4		5	20
4.10	0	1					20			20			20			20			10	10		20
4.11	0	1					10	10		20			20			20			5	15		20
4.12	0	1			2			10	8	20	4	2		7	7	20			7	5	8	20
4.13	0	1			7	7		6		20	10	10				20	8	8		4		20
4.14	0	1					8			8		12				12			8			8
4.15	0	1			20					20		20				20		20				20
4.16	0	1				20				20		10	10			20		5	15			20
4.17	0	1	47		5	5	10			20		5	10	5		20		5	10	5		20
4.18	0-1	2			10	5	5			20	10	6	4			20	13	7				20
1.13	0-1	2			0	15	0	5	0	20	0	15	0	5	0	20	0	0	0	19	1	20
1.14	0-1	2			18	2	0	0	0	20	18	2	0	0	0	20	0	5	10	5	0	20
3.02	0-1	2				14	4	2		20		16	2	2		20		14	4	2		20
3.03	0-1	2					15	5		20			15	5		20			5	15		20
3.04	0-1	2					20			20			20			20			17	3		20
3.05	0-1	2				15	2	2	1	20	8	8	4			20	16		4			20
3.06	0-1	2			4	10		5	1	20	10	10				20	3	7	5	4	1	20
3.07	0-1	2					18	2		20			14	6		20			15	5		20
3.08	0-1	2			1	18	1			20	3	17				20	1	12	6	1		20
3.09	0-1	2				19	1			20		19	1			20		19	1			20
3.1	0-1	2	12		17	2	1			20	18		1		1	20	19	1				20
3.11	2-5	3				5	10	5		20	15	3	2			20	15	3	2			20
3.12	2-5	3			13	2	2	2	1	20	11	2	5	1	1	20	10	3	3	4		20
3.13	2-5	3	3			15	5			20		15	5			20	17		3			20
1.15	6-10	4			2	10	5	3	0	20	2	10	0	8	0	20	2	11	0	6	1	20

3.14	6-10	4			16	4				20	15	3	2			20	15	1	4			20
3.15	6-10	4	3					7	10	17				1	15	16				2	16	18
1.16	11-15	5	1		0	5	0	10	5	20	0	5	0	15	0	20	0	20	0	0	0	20
1.17	15+	6	1							0						0						0
Total	58		103	67		228	507	313	191	51		284	417	347	217	42		237	422	305	241	87
Average			1.8			3.93	8.74	5.40	3.29	0.88		4.90	7.19	5.98	3.74	0.72		4.09	7.28	5.26	4.16	1.50
Average %						20%	44%	27%	16%	4%		24%	36%	30%	19%	4%		20%	36%	26%	21%	8%
Analysis by experience																					
TOTAL	0	1			109	245	134	77	20		137	177	170	88	16		93	218	122	123	30
Average %					19%	42%	23%	13%	3%		23%	30%	29%	15%	3%		16%	37%	21%	21%	5%
TOTAL	0-1	2			40	95	62	21	2		57	87	57	18	1		39	63	77	39	2
Average %					18%	43%	28%	10%	1%		26%	40%	26%	8%	0%		18%	29%	35%	18%	1%
TOTAL	2-5	3			13	22	17	7	1		26	20	12	1	1		42	6	8	4	0
Average %					22%	37%	28%	12%	2%		43%	33%	20%	2%	2%		70%	10%	13%	7%	0%
TOTAL	6-10	4			18	14	5	10	10		17	13	2	9	15		17	12	4	8	17
Average %					32%	25%	9%	18%	18%		30%	23%	4%	16%	26%		30%	21%	7%	14%	30%
TOTAL	11-15	5			0	5	0	10	5		0	5	0	15	0		0	20	0	0	0
Average %					0%	25%	0%	50%	25%		0%	25%	0%	75%	0%		0%	100%	0%	0%	0%
TOTAL	15+	6			0	0	0	0	0		0	0	0	0	0		0	0	0	0	0
Average %					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
					180	381	218	125	38		237	302	241	131	33		191	319	211	174	49

Scenario	3	Audit exp			Effective	Effective	Effective	Effective	Effective		Efficient	Efficient	Efficient	Efficient	Efficient		Honest	Honest	Honest	Honest	Honest	
Student		cat	Tot/cat		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not	
2.01		0	1			20	5			25		20	5			25				5	15	20
2.02		0	1				20			20			15	5		20				10	10	20
2.03		0	1				10	10		20			10	10		20				20		20
2.04		0	1		8	5	4	3		20	10	2	8			20	5	5	5	5		20
2.05		0	1		5					5			5		5	10		5				5
2.06		0	1			10	5	5		20			15	5		20				10	10	20
2.07		0	1			5	5	10		20		5		10	5	20			5	10	5	20
2.08		0	1		16			4		20	16			4		20	14			6		20
2.09		0	1		16			4		20		17		3		20		18		2		20
2.1	y	0	1		3	4		10	3	20	5	10		5		20		10	4	5	1	20
2.11	y	0	1			20				20		20				20		20				20
2.12	y	0	1			20				20		2				2		20				20
2.13	y	0	1		1	2	3	9	5	20	2	2	2	10	4	20	2	2	2	11	3	20
2.14	y	0	1				10	10		20			10	10		20				10	10	20
2.15	y	0	1					20		20				20		20				10	10	20
2.16	y	0	1		1	1	2	3	12	19	2	2	3	10	3	20	1	1	2	3	13	20
2.17	y	0	1				6	14		20		10		10		20			12	8		20
1.01		0	1		0	6	0	14	0	20	0	5	5	10	0	20	0	10	5	5	0	20
1.02		0	1		0	5	0	15	0	20						0	0	0	2	18	0	20
1.03		0	1		15	16	0	0	0	31	14	12	0	0	0	26	15	15	0	0	0	30
1.04		0	1		9	8	2	1	0	20	9	8	2	1	0	20	11	6	3	0	0	20
1.05		0	1		3	4	6	4	3	20	5	6	7	2	0	20	2	4	4	4	6	20
1.06		0	1		3	3	1	9	4	20	3	3	0	10	4	20	3	2	0	10	5	20
1.07		0	1		0	0	7	13	0	20	0	0	10	10	0	20	0	0	15	5	0	20
1.08		0	1		19	1	0	0	0	20	18	2	0	0	0	20	0	0	5	10	5	20
1.09		0	1		0	10	0	10	0	20	0	10	0	10	0	20	0	5	5	10	0	20
1.1		0	1		1	3	8	2	6	20	1	2	8	3	6	20	1	1	5	4	9	20
1.11		0	1		0	15	5	0	0	20	0	17	3	0	0	20	0	15	5	0	0	20
1.12		0	1		0	5	0	10	5	20	0	5	0	10	5	20	0	5	0	10	5	20
3.01		0	1		10	2		1	7	20	11	2	1	1	7	22	10		1	1	8	20

4.1	0	1					10	5	5	20		5	10	5		20				20		20
4.2	0	1				2	5	10	3	20		2	5	10	3	20		1		10	8	19
4.3	0	1				5			15	20		5			15	20		15		5		20
4.4	0	1			5	10	5			20	10	10				20			10	10		20
4.5	0	1				5	10	3	2	20	5	10	2	3		20			5	10	5	20
4.6	0	1						20		20		20				20					20	20
4.7	0	1			5	15				20	10	10				20			10	10		20
4.8	0	1			5	10	5			20	5	10	5			20			5	10	5	20
4.9	0	1			3	7	4	5	1	20	4	5	3	7	1	20	8	4	4	4		20
4.10	0	1				15		5		20			5	15		20			10	10		20
4.11	0	1						20		20				15	5	20			15	5		20
4.12	0	1			2			10	8	20	4	2		7	7	20			7	5	8	20
4.13	0	1				15		5		20		15		5		20		15		5		20
4.14	0	1								0						0						0
4.15	0	1						20		20				20		20					20	20
4.16	0	1					10	10		20			5	15		20			10	10		20
4.17	0	1	47		5		10		5	20		5	10	5		20			10	10		20
4.18	0-1	2				8	5	7		20		8	5	7		20			10	5	5	20
1.13	0-1	2			0	10	0	10	0	20	0	10	0	10	0	20	0	0	0	10	10	20
1.14	0-1	2			5	12	3	0	0	20	5	12	3	0	0	20	0	0	10	10	0	20
3.02	0-1	2				14	2	2	2	20		15	4	1		20		14	3	1	2	20
3.03	0-1	2				5	10	5		20		10	10			20			10	10		20
3.04	0-1	2					15	5		20			20			20				20		20
3.05	0-1	2					16	4		20		8	8	4		20			16	2	2	20
3.06	0-1	2			11	3	2	4		20	8	6	3	3		20	8	4	5	3		20
3.07	0-1	2					15	5		20		12	6	2		20			10	5	5	20
3.08	0-1	2			12	8				20	15	5				20	2	17	1			20
3.09	0-1	2				18	2			20		19	1			20		17	2	1		20
3.1	0-1	2	12		8	6	6			20	15	5				20		20				20
3.11	2-5	3				3	12	3	2	20		5	12	3		20		12	5	3		20
3.12	2-5	3			12	4	2	1	1	20	10	3	3	2	2	20	10	4	3	2	1	20
3.13	2-5	3	3				20			20			20			20			10	10		20
1.15	6-10	4			2	14	0	4	0	20	2	15	0	3	0	20	2	4	0	12	2	20
3.14	6-10	4			15	3		2		20	12	3		5		20	13	2	2	2	1	20
3.15	6-10	4	3						20	20					20	20					20	20

1.16	11-15	5	1		0	15	0	5	0	20	0	10	0	10	0	20	15	5	0	0	0	20
1.17	15+	6	1							0						0						0
Total	**58**		**103**	**67**	**200**	**372**	**268**	**351**	**109**		**201**	**402**	**244**	**321**	**97**		**122**	**351**	**262**	**390**	**169**	
Average			1.5		3.45	6.41	4.62	6.05	1.88		3.47	6.93	4.21	5.53	1.67		2.10	6.05	4.52	6.72	2.91	
Average %					17%	32%	23%	30%	9%		17%	35%	21%	28%	8%		11%	30%	23%	34%	15%	
Analysis by experience																						
TOTAL	0	1			110	165	99	181	45		96	162	109	159	39		64	161	98	202	70	
Average %					18%	28%	17%	30%	8%		16%	27%	18%	27%	7%		11%	27%	16%	34%	12%	
TOTAL	0-1	2			36	76	71	35	2		43	102	55	20	0		10	88	43	62	17	
Average %					16%	35%	32%	16%	1%		20%	46%	25%	9%	0%		5%	40%	20%	28%	8%	
TOTAL	2-5	3			12	7	34	4	3		10	8	35	5	2		10	16	18	15	1	
Average %					20%	12%	57%	7%	5%		17%	13%	58%	8%	3%		17%	27%	30%	25%	2%	
TOTAL	6-10	4			17	17	0	6	20		14	18	0	8	20		15	6	2	14	23	
Average %					28%	28%	0%	10%	33%		23%	30%	0%	13%	33%		25%	10%	3%	23%	38%	
TOTAL	11-15	5			0	15	0	5	0		0	10	0	10	0		15	5	0	0	0	
Average %					0%	75%	0%	25%	0%		0%	50%	0%	50%	0%		75%	25%	0%	0%	0%	
TOTAL	15+	6			0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	
Average %					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
					175	280	204	231	70		163	300	199	202	61		114	276	161	293	111	

Scenario		4	Audit exp			Effective	Effective	Effective	Effective	Effective		Efficient	Efficient	Efficient	Efficient	Efficient		Honest	Honest	Honest	Honest	Honest	
Student			cat	Tot/cat		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not		totally	probably	undecided	not very	def. not	
2.01		0	1					5	15		20			5	15		20				15	5	20
2.02		0	1					15	5		20			10	10		20				10	10	20
2.03		0	1					10	10		20			10	10		20				10	10	20
2.04		0	1			8	5	4	3		20	1	2	8			11	5	5	5	5		20
2.05		0	1								0						0					20	20
2.06		0	1					10	10		20			20			20				5	15	20
2.07		0	1					5	15		20			5	15		20		5			15	20
2.08		0	1			14			6		20		13		7		20		5			15	20
2.09		0	1					15		5	20		16			4	20				3	17	20
2.1	W	0	1						5	15	20				20		20					20	20
2.11	W	0	1						20		20				20		20					20	20
2.12	W	0	1						10	10	20				10	10	20				10	10	20
2.13	W	0	1			3	3	2	6	6	20	2	2	6	5	5	20	1	1	5	7	6	20
2.14	W	0	1						20		20				2		2				20		20
2.15	W	0	1						15	5	20				20		20				15	5	20
2.16	W	0	1			2	3	10	3	2	20	3	10	3	2	2	20	1	2	2	3	12	20
2.17	W	0	1				12		8		20			15		5	20			8	12		20
1.01		0	1			0	5	0	15	0	20	0	5	5	10	0	20	0	10	5	5	0	20
1.02		0	1			0	5	0	15	0	20						0	0	0	2	18	0	20
1.03		0	1			17	18	0	0	0	35	18	18	0	0	0	36	16	18	0	0	0	34
1.04		0	1			7	6	2	5	0	20	7	6	2	5	0	20	8	4	3	5	0	20
1.05		0	1			1	2	3	5	9	20	2	3	5	4	6	20	2	3	4	3	8	20
1.06		0	1			10	5	0	3	2	20	10	5	0	3	2	20	12	6	0	1	1	20
1.07		0	1			0	0	2	6	12	20	0	0	0	6	14	20	0	0	0	0	20	20
1.08		0	1			5	10	5	0	0	20	10	10	0	0	0	20	0	0	0	2	18	20
1.09		0	1			0	10	0	10	0	20	0	5	0	10	5	20	0	5	0	10	5	20
1.1		0	1			2	2	8	3	5	20	2	2	8	4	4	20	0	0	1	9	10	20
1.11		0	1			0	5	10	5	0	20	0	5	10	5	0	20	0	5	10	5	0	20
1.12		0	1			0	5	0	5	10	20	0	5	0	5	10	20	0	0	0	10	10	20
3.01		0	1			3	1		6	10	20	4	1			15	20	3			2	15	20
4.1		0	1						10	10	20				20		20					20	20
4.2		0	1					10	1		11	2		9	9		20		1	1	17	1	20

4.3		0	1						20		20					20	20		5		15		20
4.4		0	1				5	10	5		20	17	3				20					10	10	20
4.5		0	1						20		20			20			20			5	15		20
4.6		0	1							20	20			20			20					20	20
4.7		0	1				51	5		56		51	5			56				10	10		20
4.8		0	1			5	10	5		20	5	10	5			20					10	10	20
4.9		0	1			3	7	4	5	1	20	4	5	3	7	1	20	8	4	4	4		20
4.10		0	1						5	15	20			20			20				5	15	20
4.11		0	1					20		20	20					20					20	20
4.12		0	1			2	3		5	10	20				10	10	20				15	5	20
4.13		0	1				5	10	5	20			10	5	5	20			5	5	10	20
4.14		0	1			18				18	17					17	15					15
4.15		0	1			20				20			20			20				20		20
4.16		0	1				5	15		20		5	15			20			5	15		20
4.17		0	1	47		5	10	5		20	5		10		5	20			10	10		20
4.18		0-1	2			8	6	6		20		7	7	6		20		8	8	2		18
1.13		0-1	2		0	0	0	16	4	20	0	0	0	18	2	20	0	0	0	0	20	20
1.14		0-1	2		0	0	20	0	0	20	0	0	20	0	0	20	0	0	0	20	0	20
3.02		0-1	2		0	14	2	2	2	20		14	4		2	20		14	4		2	20
3.03	CA	0-1	2				10	10		20			10	10		20		10	10			20
3.04	CA	0-1	2				20		20			5	15		20					20	20
3.05		0-1	2				8	8	16		4	8	8		20			4	12	4	20
3.06		0-1	2		6	5	2	4	3	20	5	8	3	2	2	20	6	6	1	5	2	20
3.07		0-1	2					17	3	20				15	5	20				10	10	20
3.08		0-1	2			8	1	10	1	20		8	1	10	1	20		3	4	11	2	20
3.09		0-1	2			15	3	2		20		15	3	2		20		15	3	2		20
3.1		0-1	2	12	3	14	2		1	20	3	14		2	1	20	2	14	4			20
3.11		2-5	3				5	14	1	20			5	14	1	20			5	14	1	20
3.12		2-5	3		7	3	10			20	6	3	2	6	3	20	5	5	7	2	1	20
3.13	CA	2-5	3	3		5	5	10		20		5	5	10		20		10	5	5		20
1.15		6-10	4		2	0	0	18	0	20	2	0	0	18	0	20	2	0	0	0	18	20
3.14		6-10	4		10	5		3	2	20	8	3		5	4	20	5	4		5	6	20
3.15		6-10	4	3					20	20					20	20					20	20
1.16		11-15	5	1	0	10	0	2	8	20	0	10	0	2	8	20	0	10	0	8	2	20
1.17		15+	6	1						0						0						0

Total	**49**		**103**	**67**		**110**	**303**	**314**	**412**	**197**		**116**	**305**	**272**	**397**	**212**		**76**	**201**	**156**	**423**	**471**	
Average			**1.5**			**2.24**	**6.18**	**6.41**	**8.41**	**4.02**		**2.37**	**6.22**	**5.55**	**8.10**	**4.33**		**1.55**	**4.10**	**3.18**	**8.63**	**9.61**	
Average %						**11%**	**31%**	**32%**	**42%**	**20%**		**12%**	**31%**	**28%**	**41%**	**22%**		**8%**	**21%**	**16%**	**43%**	**48%**	
Analysis by experience																							
TOTAL	**0**	**1**	**47**			**72**	**97**	**106**	**229**	**91**		**59**	**108**	**112**	**168**	**102**		**48**	**77**	**45**	**192**	**252**	
Average %						**12%**	**16%**	**18%**	**38%**	**15%**		**10%**	**18%**	**19%**	**28%**	**17%**		**8%**	**13%**	**8%**	**32%**	**42%**	
TOTAL	**0-1**	**2**	**12**			**9**	**56**	**68**	**69**	**14**		**8**	**63**	**54**	**82**	**13**		**8**	**62**	**30**	**60**	**60**	
Average %						**4%**	**26%**	**31%**	**32%**	**6%**		**4%**	**29%**	**25%**	**38%**	**6%**		**4%**	**29%**	**14%**	**28%**	**28%**	
TOTAL	**2-5**	**3**	**3**			**7**	**8**	**20**	**24**	**1**		**6**	**8**	**12**	**30**	**4**		**5**	**15**	**17**	**21**	**2**	
Average %						**12%**	**13%**	**33%**	**40%**	**2%**		**10%**	**13%**	**20%**	**50%**	**7%**		**8%**	**25%**	**28%**	**35%**	**3%**	
TOTAL	**6-10**	**4**	**3**			**12**	**5**	**0**	**21**	**22**		**10**	**3**	**0**	**23**	**24**		**7**	**4**	**0**	**5**	**44**	
Average %						**20%**	**8%**	**0%**	**35%**	**37%**		**17%**	**5%**	**0%**	**38%**	**40%**		**12%**	**7%**	**0%**	**8%**	**73%**	
TOTAL	**11-15**	**5**	**1**			**0**	**10**	**0**	**2**	**8**		**0**	**10**	**0**	**2**	**8**		**0**	**10**	**0**	**8**	**2**	
Average %						**0%**	**50%**	**0%**	**10%**	**40%**		**0%**	**50%**	**0%**	**10%**	**40%**		**0%**	**50%**	**0%**	**40%**	**10%**	
TOTAL	**15+**	**6**	**1**			**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	
Average %						**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**		**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**		**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	
				67		100	176	194	345	136		83	192	178	305	151		68	168	92	286	360	

SUMMARY - ALL STUDENTS

SCENARIO 1																		
Average						4.18	6.97	5.00	2.85	0.58	4.48	7.36	3.60	3.48	0.52	4.49	4.93	4.78	4.31	0.94
Average %						21%	35%	25%	14%	3%	22%	37%	18%	17%	3%	22%	25%	24%	22%	5%

SCENARIO 2																		
Average						3.93	8.74	5.40	3.29	0.88	4.90	7.19	5.98	3.74	0.72	4.09	7.28	5.26	4.16	1.50
Average %						20%	44%	27%	16%	4%	24%	36%	30%	19%	4%	20%	36%	26%	21%	8%

SCENARIO 3																		
Average						3.45	6.41	4.62	6.05	1.88	3.47	6.93	4.21	5.53	1.67	2.10	6.05	4.52	6.72	2.91
Average %						17%	32%	23%	30%	9%	17%	35%	21%	28%	8%	11%	30%	23%	34%	15%

SCENARIO 4																		
Average						2.24	6.18	6.41	8.41	4.02	2.37	6.22	5.55	8.10	4.33	1.55	4.10	3.18	8.63	9.61
Average %						11%	31%	32%	42%	20%	12%	31%	28%	41%	22%	8%	21%	16%	43%	48%

	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not
scenario 1	21%	35%	25%	14%	3%	22%	37%	18%	17%	3%	22%	25%	24%	22%	5%
scenario 2	20%	44%	27%	16%	4%	24%	36%	30%	19%	4%	20%	36%	26%	21%	8%
scenario 3	17%	32%	23%	30%	9%	17%	35%	21%	28%	8%	11%	30%	23%	34%	15%
scenario 4	11%	31%	32%	42%	20%	12%	31%	28%	41%	22%	8%	21%	16%	43%	48%

SUMMARY - ALL STUDENTS (ANALYSED BY EXPERIENCE)

Scenario 1

	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not
0	21%	38%	26%	12%	3%	27%	35%	16%	19%	3%	18%	28%	31%	17%	5%
0-1	29%	49%	20%	3%	0%	24%	47%	26%	3%	1%	32%	39%	21%	7%	0%
2-5	27%	27%	43%	3%	0%	28%	62%	10%	0%	0%	80%	10%	10%	0%	0%
6-10	33%	18%	10%	27%	12%	33%	25%	10%	3%	25%	32%	23%	5%	20%	20%
11-15	0%	75%	0%	25%	0%	0%	50%	0%	50%	0%	75%	25%	0%	0%	0%
16+	0%	10%	35%	45%	10%	0%	10%	35%	45%	10%	10%	0%	20%	60%	10%

Scenario 2

	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not
0	19%	42%	23%	13%	3%	23%	30%	29%	15%	3%	16%	37%	21%	21%	5%
0-1	18%	43%	28%	10%	1%	26%	40%	26%	8%	0%	18%	29%	35%	18%	1%
2-5	22%	37%	28%	12%	2%	43%	33%	20%	2%	2%	70%	10%	13%	7%	0%
6-10	32%	25%	9%	18%	18%	30%	23%	4%	16%	26%	30%	21%	7%	14%	30%
11-15	0%	25%	0%	50%	25%	0%	25%	0%	75%	0%	0%	100%	0%	0%	0%

Scenario 3

	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not
0	18%	28%	17%	30%	8%	16%	27%	18%	27%	7%	11%	27%	16%	34%	12%
0-1	16%	35%	32%	16%	1%	20%	46%	25%	9%	0%	5%	40%	20%	28%	8%
2-5	20%	12%	57%	7%	5%	17%	13%	58%	8%	3%	17%	27%	30%	25%	2%
6-10	28%	28%	0%	10%	33%	23%	30%	0%	13%	33%	25%	10%	3%	23%	38%
11-15	0%	75%	0%	25%	0%	0%	50%	0%	50%	0%	75%	25%	0%	0%	0%

Scenario 4

	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not	totally	probably	undecided	not very	def. not
0	12%	16%	18%	38%	15%	10%	18%	19%	28%	17%	8%	13%	8%	32%	42%
0-1	4%	26%	31%	32%	6%	4%	29%	25%	38%	6%	4%	29%	14%	28%	28%
2-5	12%	13%	33%	40%	2%	10%	13%	20%	50%	7%	8%	25%	28%	35%	3%
6-10	20%	8%	0%	35%	37%	17%	5%	0%	38%	40%	12%	7%	0%	8%	73%
11-15	0%	50%	0%	10%	40%	0%	50%	0%	10%	40%	0%	50%	0%	40%	10%

NUMBER OF STUDENTS WHO HAVE (SO FAR) PARTICIPATED

Birmingham City University - Block Release, MSc Auditing	15	
Birmingham City University - Regular course - MSc Auditing	17	
Glamorgan University - BA, Forensic Accounting	17	
Cass	18	
	67	

Experience (years)		Notes
0	47	Of which - 7 Celtic
0+ to 2	12	Of which 2 work with chartered accountancy companies
2 to 5	3	Of which 1 works with a chartered accountancy company
6 to 10	3	
11 to 15	1	
16+	1	
	67	

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DVD showing the 5 scenarios that were shown to the students – see chapter 6

Please note that when these DVDs were shown to students, the DVD stopped automatically between each scenario. For convenience, the DVD below runs the scenarios without the need to actively select the next one. In addition, the 27 second 'false start' on scenario 4 that can be seen on the attached DVD was not shown to the students.