

CHAPTER 2
**EXPERIENTIAL TEACHING METHODOLOGIES: A POSSIBLE
WAY OF ADDRESSING THE CHALLENGES FACING
AUDITING EDUCATION**

2.1 INTRODUCTION

The previous chapter provided a background to auditing and auditing education and dealt particularly with the inherent difficulties, challenges posed by the structure of the CA(SA) curriculum and criticisms of the way in which accounting education has traditionally been lectured. This chapter discusses possible ways to address these and therefore also addresses Specific objective 1: Gain an understanding of the difficulties involved in teaching auditing as a theoretical subject by reviewing the literature on the subject. Farrelly and Hudson (1985) describe what should be done to address the above-mentioned difficulties, challenges and criticisms. They propose that emphasis should not merely be on what is taught to meet the prescribed syllabus and the demands of audit practice. They state that if the manner of education is neglected, the teaching effort might be in vain. This is consistent with the requirements of the Public Accountants' and Auditors' Board (PAAB, 2001) that the instructional approach in academic programmes should address not only learning content, but also the learning process.

The development of pedagogical methods to improve the teaching of auditing is therefore a matter that deserves serious attention of researchers. A number of authoritative publications have also underscored the need for instructional improvement in auditing (Adler & Milne, 1997; AECC, 1990; Albrecht, Clark, Smith, Stocks, & Woodfield, 1994; Bonk & Smith, 1998; Milne & McConnell, 2001). Because employers are not satisfied with employees that have only conceptual notions of what lies beyond their study years (see Chapter 1), in recent years, innovative approaches have been advocated to bridge the reality gap affecting both curricula and modes of assessment. One such an innovative approach is the notion of experiential teaching methods, which will now be examined and explained further through the rest of the chapter. Examples of some of these experiential methods are listed and explained, and the chapter concludes with a discussion of whether experiential teaching could be used effectively to address the various challenges, difficulties and criticisms facing accounting education today.

2.2 EXPERIENTIAL TEACHING METHODOLOGY

Experiential learning is defined as a sequence of events that require active involvement by the student at various points (Walter & Marks, 1981). There may be multiple learning objectives, but the central tenet is that the student learns best through active involvement (Marriott, 2004) in contrast with the traditional teaching method adopted by accounting lecturers, in which the emphasis is placed on lectures, textbooks are given and students form a passive part of the learning process. This is the foundation of experiential learning and also why it is sometimes called 'active learning' (Fowler, 2006).

Fouché (2006) effectively summarised the assumptions on which experiential learning theory is based (based on Kolb & Kolb, 2005):

- Learning is best conceived as a process through which the student goes and not in terms of reaching outcomes.
- All learning is relearning.
- Conflict, differences and disagreement drive the learning process of adaptation to the world.
- Learning results from synergetic transactions between the person and the environment.
- Learning is a process of creating knowledge.

Kolb and Kolb's (2005) theory maintains that learning occurs as the individual moves through the cycle of concrete experience (the real world; feeling), reflective observation (thinking), abstract conceptualisation (figurative presentation) and active experimentation (doing). In traditional auditing education, the catalyst of concrete experience is missing. Therefore, there exists a gap in which an experiential learning method/aid could be used to complete the cycle.

Fowler (2006) views experiential learning as a possible way to rejuvenate accounting education. A great deal of research has been done on the possible benefits of these active learning processes, specifically in accounting education. Barkman (1998) and Hassall, Lewis and Broadbent (1998) studied the effects of using case analysis to promote critical thinking. Craig and Amernic (1994) used role-playing in an effort to develop higher-level thinking in students. Beets (2003) studied the effects of learning in groups. Alder and Milne (1997) researched the motivation behind problem-based learning (PBL) (see

Section 2.3.3). McEwen (1994) evaluated case studies and problem solving as a more effective teaching method for developing critical thinking skills. These authors all agree with Gentry (1990), who presumes that passive learning, through reading and lectures, are thought to produce lower-level thinking, while interactive techniques such as those found in active learning produce higher-level thinking skills. These are precisely the skills that today's accounting and auditing students lack (see Section 1.3.5 in Chapter 1).

One of the main reasons that Lehtinen (2000) gives for the inability of traditional teaching methods to facilitate the development of flexible and useful knowledge and skills is the lack of contextualising or anchoring the content being learned. On this note, it has to be kept in mind that academic research has consistently called for a variety of teaching methods to more effectively reach a broader range of student personality types and learning styles (Friedlan, 1995; Rudman & Terblance, 2011; Teach & Govahi, 1993). Botha (2001) states that academic learning and practical experience are both cornerstones of sufficiently qualified potential trainees; however, this is not how the current qualification process is structured. SAICA (2012a), in its new Competency Framework, specifically states that students only begin to understand knowledge when they examine it in relation to a practical experience, and suggests that students should be taught within the real-life environment of the specific subject. This corresponds with Albrecht and Sack's (2000) view that insight into concepts is only developed by exposure to the business world. De Wet and Van Niekerk (2001) advocate an approach. They contend that by firstly explaining the underlying concepts of auditing to students where the teaching of rules are pre-empted by teaching the concepts from which the rules stem, they are prepared to subsequently comprehend the rules better and to remember them longer. That is why supplementary aids are needed (Ballantine & Larres, 2004; Stainbank, 2005; Steenkamp & Rudman, 2007). Rudman and Terblance (2011) elaborate on this by stating that there is an advantage to performing a practical task (from the business world) in the classroom in that it has the potential to create learning outcomes equivalent to those gained by actual work experience.

Experiential teaching methods also encourage deep learning (currently lacking from traditional auditing education, see Chapter 1), as characterised by Beattie and James (1997), through having students interacting critically with the teaching materials, relating ideas to previous knowledge and experience, examining the logic of arguments, and relating the evidence presented to their conclusions. This is in contrast to the traditional way in which auditing is lectured, which exhibits many of the characteristics associated with surface learning, for example memorising the material, accepting the facts without

questioning the content, failing to distinguish principles or patterns, and being heavily influenced by assessment requirements.

In addition, active learning methods could also increase students' motivation to study in advance and prepare for class (Cook & Hazelwood, 2002) and increase students' desire to engage in critical thinking (Haywood, 2004), stimulate discussions and ideas, making the content more tangible and less boring and routinely predictable (Matthews et al., 1990), thereby engaging students and making auditing interesting to them. This in turn increases motivation to learn (Milne & McConnell, 2001) and could contribute to creating independent and lifelong students. There is some proof that learning is much higher in an emotional and motivated situation (Brehm & Self, 1989; Holzinger & Maurer, 1999; Holzinger, Pichler, Almer, & Maurer, 2001).

It is therefore possible that experiential teaching can be used as the much needed "bridge between the classroom and real world" (Weil et al., 2001) in order for students to establish the frame of reference in which future theoretical knowledge will be 'anchored'. In this way, students will not only benefit from the experiential learning experience, but future theoretical lectures might also be comprehended more effectively.

2.3 DIFFERENT EXPERIENCE-BASED METHODS

There are different ways of employing experience as the basis of a teaching method, including annual projects, case studies, PBL, interactive learning, simulations, role play, educational games, guest lecturers, field experience and computerisation, each of which is now discussed.

2.3.1 Annual projects

The annual project can take the form of a group project or individualised project and although the content will differ according to the specific skill or subject that the lecturer wants the class to focus on, in essence, students are presented with some kind of problem or task that they have to solve or address and subsequently report on. Pasewark (1997) describes how annual reports can be integrated into the curriculum by means of a number of strategies such as textbooks, hand-outs, practice sets, examinations and financial databases.

2.3.1.1 Potential benefits

The potential benefits of an annual project include the following:

- Specifically designed assignments can be used to develop abilities and key competencies in students that seem difficult to teach in the classroom (Bhattacharjee & Shaw, 2001).
- The use of class time is minimal (Bhattacharjee & Shaw, 2001).
- A prize can be given as an incentive to increase motivation (Stainbank, 2003).
- Group projects give students a chance to experience working in a team and create an opportunity for co-operative learning to take place (Stainbank, 2003).

2.3.1.2 Challenges

The potential challenges of an annual project include the following:

- Although projects do not consume much class time, they place significant pressure on the individual's time management and students could feel that the time taken up by the project could better be utilised for studying (Stainbank, 2003), especially as the chartered accountancy course already demands significant resources and commitment from the student.
- Marks given for group projects could result in unhappiness for individuals who feel they deserve a better mark than the average given for group effort (Stainbank, 2003).
- The marking of group projects could be complex and time-consuming for staff.

2.3.2 Case studies

The case study is regarded as the closest thing to actual apprenticeship (Gross & Gross, 1980) and also closely aligned to PBL (Milne & McConnell, 2001) (see Section 2.3.3). In the case study method, a factual write-up of a situation is given to students, bringing their own judgements and experiences, to engage in a group discussion and to benefit from the group's analysis (Gross & Gross, 1980). Some cases, for example the J&K Fitness Supply Company case used by Clikeman (2012), provide a practice set of working papers, invoices, financial statements, receipts, and so forth. This brings the case even closer to the real world and students begin to foster an understanding of why they are being taught

the theory of auditing. The use of case studies in auditing education has grown extensively in recent years (Clikeman, 2012).

2.3.2.1 Potential benefits

The potential benefits of a case study include the following:

- It helps to motivate students, because of interest in and comprehension of materials (Libby, 1991) relative to the 'monotony' of some other coursework (Waddell & McChlery, 2009).
- It aids improvement in oral communication, written communication and group interaction (Libby, 1991).
- Improvement of problem-solving and judgement skills (Libby, 1991) can serve as a bridge between degree study and professional life (Milne & McConnell, 2001).
- It leads to understanding of the real world and the accompanying ability to deal with ambiguity (Libby, 1991) and demonstrates to students the relevance of their conventional wisdom (Maltby, 2001), thereby helping them understand the role of the auditor in the audit firm.
- It presents students with a chance to thoroughly practise the application of the theoretical concepts they have learnt to 'real-world' situations (Birkett, 1989; Boyce, Williams, Kelly, & Yee, 2001; Kreber, 2001; Maltby, 2001).

2.3.2.2 Challenges

The potential challenges of a case study include the following:

- There may be restricted access to real-life cases from the profession due to client confidentiality (Maltby, 2001).
- Invented cases are too rigid, artificial and retrospective and possibly force a single solution, thereby avoiding problem solving and real-world ambiguity (Maltby, 2001).
- There is a tendency to synthesise cases from multiple clients, which distorts the picture of auditing for the student (Maltby, 2001).
- Students may become frustrated and demotivated because of the ambiguity of the material and the time-consuming nature of the case study (Libby, 1991).

- The case method places a significantly increased workload on the instructor (Libby, 1991).
- There is a chance that control over the classroom may be lost, especially if the lecturer is inexperienced (Libby, 1991).
- There is a chance that the topic will not be covered in depth; this is especially concerning where the case method is used to introduce new topics (Libby, 1991).

2.3.3 Problem-based learning

PBL is a specific type of active learning that has been used extensively in the medical profession and is increasingly being used in other fields as well. PBL, although closely aligned to the case study approach, differs from the case study method in that the problem is not offered as an example of applying information, but rather as a catalyst to promote the acquisition of new knowledge (Milne & McConnell, 2001). Problems found in professional practice or real life is therefore used as the stimulus for learning to take place (Cannon & Newble, 2000). In this way, students are forced or guided to acquire and develop the knowledge, skills and capabilities needed to effectively work towards the understanding and resolution of a problem (Engel, 1997).

2.3.3.1 Potential benefits

The potential benefits of PBL include the following:

- PBL could help students to develop flexible knowledge, critical thinking, analysing abilities and effective problem-solving skills (Hansen, 2006; Hmelo-Silver, 2004).
- This form of learning encourages self-directed learning (Hmelo-Silver, 2004), as students learn to find, evaluate and use learning resources, which paves the road for lifelong (continuous) learning to take place (Hansen, 2006).
- Students become intrinsically motivated (Hmelo-Silver, 2004).
- If the PBL takes place in a group context, effective collaboration and communication as well as leadership skills are developed (Hansen, 2006; Hmelo-Silver, 2004; Mierson & Freiert, 2004).

2.3.3.2 Challenges

The potential challenges of PBL include the following:

- The availability of unstructured problems is limited (Milne & McConnell, 2001).
- The approach is time-consuming and challenging for both students and lecturers, as students must be guided through the problem-solving process and to the realisation that there is no blueprint for the perfect answer (Milne & McConnell, 2001).
- PBL students may develop inappropriately organised knowledge structures and may rely too heavily on backward reasoning (Johnstone & Biggs, 1998).
- There is a greater likelihood that student reasoning errors or misconceptions may occur and remain undetected (Johnstone & Biggs, 1998).

2.3.4 Interactive learning

Interactive learning involves interaction between lecturers, other students, the environment or the learning material on a real-time basis (University of Bath, 2006, as cited in Fouché, 2006). Learning material and the environment may be computerised or non-computerised. In this way, students receive immediate feedback on their perceptions (Hines, 2005) and the learning process is thereby accelerated.

2.3.4.1 Potential benefits

The potential benefits of interactive learning include the following:

- Performance in tests can improve (Hines, 2005).
- Mierson and Freiert (2004:15) remark that adults retain more when they are actively engaged in the learning process.
- Stunkel (1999) states that interactive pedagogy reduces the professorial role to that of facilitator, thereby placing less strain on the lecturer.
- Interactive material may well address the lack of excitement in accounting (Fouché, 2006) and accounting-related subjects such as auditing.

2.3.4.2 Challenges

The potential challenges of interactive learning include the following:

- Teaching in this way requires thinking on one's feet and can prove to be exhausting (Rudman & Terblanche, 2011).

- Less experienced lecturers might lose control of the situation, leaving both students and lecturer frustrated (Rudman & Terblanche, 2011).
- An immediate casualty of interactive learning theory is the student who prefers solitary study and inquiry (Stunkel, 1999).

2.3.5 Simulations

Silva, Trigo and Varajao (2011) describe simulation as an imitation of a real system without compromising the real system itself. Simulations are widely used in medical education as well as engineering and it is compulsory for every pilot of an airplane to train with a simulator before flying an actual airplane (Holzinger & Ebner, 2005). Various authors identify the use of simulators as an interesting tool to improve accounting education, including PWC (2003) and Milner, Hogue, Kapralos and Friedlan (2008). Various forms of media can be used to convey simulations, such as computers, videos (Siegel et al., 1997) and board games (Fouché, 2006).

2.3.5.1 Potential benefits

The potential benefits of simulations include the following:

- Including simulations in the learning process may increase students' academic performance (Marriott, 2004).
- Students are fully engaged in the learning experience and therefore challenged to employ their problem-solving abilities (Gross & Gross, 1980).
- Simulations give students the chance to practise the application of theory and develop skills without the risk of compromising the real system itself (Silva et al., 2011).

2.3.5.2 Challenges

The potential challenges of simulations include the following:

- A major constraint is the time required for students to complete the simulation (Felix, May, Niles & Thorson, 1985; Steenkamp & Rudman, 2007).
- The simulation cannot be used as a substitute for lectures, but is by nature rather a supplement than a replacement for classroom work (Siegel et al., 1997).

- In a study conducted by Steenkamp and Von Wielligh (2011), the respondents who did not enjoy it indicated that it was because it covered a combination of subjects they did not particularly enjoy.

2.3.6 Role play

Role play involves the physical acting out of a specific scenario or case study. The students as well as the lecturer play active parts during the role play simulation and in this way the student is engaged in the auditing process and confronted by what a real-life audit might be like, but without the pressure that goes along with actual work experience (Rudman & Terblanche, 2011).

2.3.6.1 Potential benefits

The potential benefits of role play include the following:

- Swink (1993) notes that role play gives people the chance to practise new skills in order to transfer learning to the workplace.
- The activity of role play helps students gain insight into the theoretical concepts of auditing, as the role-play scenarios give them real-world contexts and practical applications for theoretical concepts (Rudman & Terblanche, 2011).
- Role-playing provides insight into the practical real-life situation, because it assists with visualisation and helps students to link theory to how real auditing works (Ballantine & Larres, 2004; Rudman & Terblanche, 2011; Siegel et al., 1997; Steenkamp & Rudman, 2007).

2.3.6.2 Challenges

The potential challenges of role play as a teaching method have been summarised by Rudman and Terblanche (2011:71) as follows:

- Lecture time is limited and role play is time-consuming.
- When practical role play is presented, practical obstacles may be encountered, for instance challenges related to the lecturer's ability, being reliant on technology and the size of the facility.
- Not all areas within a subject are suitable for using role play as a teaching method.

- Students may experience that the role play apparently oversimplifies the subject matter in contrast to difficult examination questions.

2.3.7 Educational games

Educational games allow students to immerse themselves in a realistic simulated setting without fear of real-life consequences (Malik & Howard, 1996). Educational games include board games, games designed to take place in the classroom, crosswords, computer games or any other activity designed to educate and be enjoyable. Game-based learning is similar to PBL (see Section 2.3.3), wherein specific problem scenarios are placed within a play framework (Barrows & Tamblyn, 1980), but is also a form of interactive learning. Games provide a meaningful framework for offering problems to students. In fact, a game itself is a big problem that is composed of smaller casually linked problems.

2.3.7.1 Potential benefits

The potential benefits of educational games include the following:

- Game-like interfaces serve to make routine and boring subjects enjoyable activities, thereby engaging students and generating more positive attitudes among students (Betz, 1995; Malik & Howard, 1996; Prensky, 2001).
- Students can immerse themselves in a realistic simulated setting without fear of real-life consequences (Malik & Howard, 1996).
- The background of virtually all students today includes a history of interactive games and a fascination with technological wizardry (McEacharn, 2005).
- Students receive immediate feedback on their actions and decisions, inviting exploration and experimentation (Kirriemuir, 2002).
- Students will be able to obtain all the benefits of interactive learning, while no increased effort will be required of the lecturer (Prensky, 2001).
- Games include many characteristics of problem solving, such as an unknown outcome, multiple paths to a goal, construction of a problem context and collaboration in the case of multiple players, and they add the elements of competition and chance (Prensky, 2001).

- Learning environments, such as games, allow students to discover new rules and ideas rather than memorising the material that others have presented (Kebritchi & Hirumi, 2008).

2.3.7.2 Challenges

The potential challenges of educational games include the following:

- Kirriemuir (2002) notes that the workload of the teacher is significantly increased, as game evaluation, familiarity and objective planning are required, but the workload can be mitigated if taken into account that these functions have to be performed only once.
- A model that successfully integrates educational theory and game design aspects does not exist (Kiili, 2005a).
- Educational games need to be balanced so that the main determining factor for the success of a player is the player's skill level. If this is not the case, players will be allowed to exploit flaws in the game to gain advantages and the game's educational objectives will be defeated (Kiili, 2005a).
- In educational games, the risk of overloading a player's working memory is high, because traditionally, games have consisted of rich multimedia elements (Kiili, 2005a).
- The process of achieving the objectives of the game need to be planned and programmed carefully to be logical and consistent and to have a firm rationale and the game must provide feedback to players in the form of scores, replays or measurements (Leemkuil, De Jong, De Hoog, & Christoph, 2003; Sandford & Williamson, 2004).
- Educational games for all subjects are not readily available.

2.3.8 The use of guest lecturers

This experiential method involves asking auditors in public practice to act as guest lecturer for a short time in order to present the students with their personalised accounts of real-life events and examples of theory in action that they have encountered while practising. This method therefore aims to bring the real world to the classroom, show students the relevance of the theory they are being taught and give them some idea of how this theory might be applied in practice.

2.3.8.1 Potential benefits

The potential benefits of using guest lecturers include the following:

- Contact with 'real-world' auditors are one of the more popular ways to ensure that students are exposed to auditing in practice and they can therefore get an idea of what is expected of them in terms of theory application (Butler & Von Wielligh, 2012).
- Students gain a deeper understanding of the topics covered in the guest lectures (Butler & Von Wielligh, 2012).
- Students' attitude towards the accounting profession may be improved or their certainty regarding their choice of career may be confirmed (Butler & Von Wielligh, 2012).
- The use of guest lecturers keeps student interest, involvement and participation high (Jamieson, 1991), which could increase students' motivation to study.
- An added benefit is the opportunity this method presents to students in terms of networking with professionals outside the university and potential future employers (Butler & Von Wielligh, 2012; Kamoun & Selim, 2007; Metrejean, Pittman, & Zarzeski, 2002).

2.3.8.2 Challenges

The potential challenges of using guest lecturers include the following:

- The success of the method depends on the quality, time and commitment of the guest lecturers used (Butler & Von Wielligh, 2012; Shore, 1993).
- Proper planning of such an event is essential (Kamoun & Selim, 2007), as a poorly arranged guest lecture could result in negative consequences such as the session being a waste of time or the guest lecturer providing information that contradicts the theory.
- The guest speakers will most probably be unfamiliar with the lecturing environment (Butler & Von Wielligh, 2012), which could result in ineffective transfer of knowledge from lecturer to students or communication gaps.

- The guest lecturer has to keep in mind the level of education of the students in the light of his or her own qualifications and experience, otherwise presentations might be too complex for the students to understand (Butler & Von Wielligh, 2012).
- The practical aspects covered in the guest lecturers' presentations might be too far removed from the theory or what is expected of the students in terms of university assessments (Butler & Von Wielligh, 2012), which could mitigate the educational experience.

2.3.9 Field experience

Field experience programmes are out-of-classroom learning activities, where the student is expected to get a feeling for real-life illustrations of classroom theory (Gross & Gross, 1980). Students are expected to learn through interaction with real-world clients and their specific circumstances. Although the current chartered accountant qualification programme is structured so that field experience is gained in the years of practical training, opportunities for vacation work at various firms are available.

2.3.9.1 Potential benefits

The potential benefits of field experience include the following:

- Work experience enables students to reflect on and contextualise their theoretical knowledge when students are assisted to learn to effectively apply this knowledge in a business scenario and vice versa (PwC, 2003; Rudman & Terblanche, 2011).
- Work experience affords students the opportunity to develop insight into the concept at hand as well as overall thinking skills such as the ability to think critically and logically (Rudman & Terblanche, 2011).
- Students are able to understand the scenarios in examinations better after gaining work experience (Rudman & Terblanche, 2011).
- Students are able to visualise the whole auditing process and to understand the inter-relationship between the different steps within the process (Rudman & Terblanche, 2011).
- Work experience develops a variety of personal skills such as the ability to work in a team, planning and improved concentration, which cannot be developed as effectively in an academic environment (Rudman & Terblanche, 2011).

2.3.9.2 Challenges

Rudman and Terblanche (2011) summarised the potential challenges of field experience as follows:

- In order for this method to be applied effectively and consistently, there must be co-operation between the education providers, potential employers and the accounting profession to make work experience feasible and more accessible to a larger number of students.
- Inexperienced students may not be able to apply knowledge in practice because the gap between theory and practice is too wide and they do not have embedded knowledge or communication skills.
- The public practices in the area might not have sufficient capacity to provide an opportunity for vacation work to all students.
- Students may not have time during their holidays to take a vacation job and the way that the chartered accountancy curriculum is currently structured in South Africa do not make provision for this kind of experiential educational method to be undertaken during the academic semester.

2.3.10 Information technology integration

One of the major factors challenging current accounting education is the impact of information technology on the environment in which professional accountants operate (Wessels, 2004). PWC (2002) identified the key information technology issues that affect business organisations and states that these include internet computing, telephones replaced by internet protocol networks, applications built for e-business, large-scale aggregation and integration of computing, storage, network and other resources across organisational boundaries. These are all matters to be taken into account when educating the future generation of prospective accountants.

Furthermore, the education system is also changing due to the impacts of evolving information technology. The World Wide Web (WWW), coupled with user-friendly web browsers, now provides access to multimedia web pages in universally accepted formats that can easily be accessed worldwide via inexpensive desktop computers. It appears inevitable that this technology will revolutionise how students, faculty, researchers and the public access and use information (McIntyre & Wolff, 1998).

To summarise, with the development of information technology having a large impact on both the educational system responsible for educating prospective professional accountants and the environment that they will be working in one day, it has become a necessity to build into the curriculum some form of exposure to information technology, as also argued by Wessels (2004). Many projects have investigated the use of the internet, multimedia and other developments in information technology in tertiary education (McIntyre & Wolff, 1998) and as early as 1998, Henry and Crawford (1998) reviewed the reasons why lecturers might opt for computerised case studies rather than their handwritten counterparts. To throw some light on the subject, the benefits as well as challenges to take into consideration when contemplating the use of computerised experiential methods are now explored.

2.3.10.1 Potential benefits

The potential benefits of using experiential methods include the following:

- The content can be made available to students via the internet or written to compact discs and distributed to students, which allows them to thoroughly explore a large number of troublesome issues with feedback in their own time. Such depth of coverage would not be possible in limited classroom time (McIntyre & Wolff, 1998).
- It is convenient and therefore motivating for students to use the internet from home in order to access the WWW interactive learning environment and interact leisurely with several examples during out-of-classroom time (McIntyre & Wolff, 1998).
- Computerisation can deal effectively with the time constraints challenge associated with most experiential teaching methods. This is especially true if assessment is also computerised and students are allowed to deal with the material in their own time. In this way, the experiential teaching method is less time-consuming for both the lecturer and the student. For example, Henry and Crawford (1998) stated that the development time of a computerised case study is not excessive when compared to the time required to run the case study repeatedly using role play.
- With computerisation, human nature is left out of consideration. In this way, the experiential teaching method becomes standardised so that each and every student is given the same guidance (Henry & Crawford, 1998).
- With case studies, there is always the danger that students will misinterpret the facts completely and therefore gain nothing from the experience, or worse, be demotivated to the point that they choose not to participate. With computerisation,

there is the opportunity for built-in guidance, either in the form of some type of help function or because of the inherent pre-programmed nature of any computerised programme (Henry & Crawford, 1998).

- Computerisation experiential methods are much less labour-intensive (Scheiwe & Radich, 1997) than their non-computerised counterparts and therefore more cost-effective in the long run.

2.3.10.2 Challenges

- Internet user response time might be unacceptably slow and may result in frustrated students in this real-time environment (McIntyre & Wolff, 1998).
- Students might experience display problems on different client platforms due to differences in the various client windowing systems (McIntyre & Wolff, 1998).
- Accounting lecturers might be reluctant to switch from the traditional lecture-based approach (Adler & Milne, 1997; Boyd, Boyd, & Boyd, 2000). This resistance could result in improper planning, lack of enthusiasm and ultimate failure of the method.
- A learner-centred approach is potentially more time-consuming and may require greater commitment from students, even if the computerised resources are conveniently available and accessible (Adler & Milne, 1997).
- There may be a lack of adequate material (Adler & Milne, 1997), such as educational games, computerised case studies, computerised examples, animations and the software to create and publish them.
- Students might be reluctant to take responsibility for their own learning (Adler & Milne, 1997). This reluctance could result in poor participation, demotivation, frustration and the ultimate failure of the method.
- It is difficult to create realistic business environments suitable for educational purposes (Crawford et al., 2010), especially as accounting and auditing lecturers most likely do not have the knowledge of information technology required to create such environments and hiring professionals to programme these environments will require enormous investment capital.

2.4 CONCLUSION

Experiential methodologies (or active learning, as it is sometimes called), have many potential benefits and challenges to take into account when considering implementation, but it is evident that it can be used, at least to an extent, to address some of the problems with and concerns regarding current accounting and auditing education. This is because active learning has at its heart the principle that learning takes place when students are actively engaged in the learning process and therefore addresses the main concern regarding current auditing education, which is mainly that students do not have experience (have not been actively engaged in the auditing process) and therefore struggle to comprehend and apply the underlying theoretical knowledge of auditing.

Furthermore, the possibility of computerised experiential methodologies has been reviewed and taken into account. There are various benefits and challenges related to the computerisation of teaching methodologies, but it does seem that there are both push and pull factors in play in leading the future of accounting education down the information technology route.

This chapter effectively addressed Specific objective 3: Gain an understanding of experiential teaching methodologies and Specific objective 4: Gain an understanding of the benefits and challenges associated with experiential teaching methods by doing a literature review (see Section 1.5.2 in Chapter 1).

Next, an overview of the findings on previous research conducted on the use of experiential teaching methodologies is given.