THE EFFECT OF COOPERATIVE LEARNING METHOD ON STUDENTS' PERCEPTIONS OF EMPOWERMENT AND THE DEVELOPMENT OF PROFESSIONAL ACCOUNTING COMPETENCIES

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Doctor of Philosophy

WAHIDA ZRAA

MA. BSc. (Accounting)

PRINCIPAL SUPERVISOR:
Professor Marie Kavanagh

ASSOCIATE SUPERVISOR:
Dr Melissa Johnson Morgan

School of Accounting, Economics and Finance
Faculty of Business and Law
University of Southern Queensland
Australia

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CERTIFICATION OF DISSERTATION

I certify that the ideas, results, analyses, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

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Signature of Candidate Date

ENDORSEMENT

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Signature of Supervisor/s Date

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Signature of Supervisor/s Date

DEDICATION

To my father, mother and brothers for their prayers and support;

To my husband, and children: Takwa, Tasnim; and Mohammed

and to all my family and friends

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ABSTRACT

The purpose of this exploratory study is to compare a cooperative learning environment with a traditional educational environment within Libyan business degree institution and how this affects students' perceptions of empowerment and development of professional accounting competencies in a first year accounting course (Accounting Principles I). The research also investigates the relationship of empowerment with the development of professional accounting competencies and classroom instruction. This study involved quantitative and qualitative data from a survey of 288 students who were studying in their first year in Accounting Principles I; and pre and post written exams, and reflections were conducted. Quantitative data were analysed using reliability tests, factor analysis, t-tests and correlations. Qualitative data were analysed by hand coding. The results indicate that students who attended cooperative learning classes are more empowered than students who attended traditional classes. In addition, the results reveal that students' perceptions of empowerment and development of the professional accounting competencies were influenced by classroom instruction methods.

PUBLICATIONS ARISING FROM THIS DISSERTATION

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INTRODUCTION

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Advancing and improving accounting education is one beneficial and significant way to improve the skills of accountants and, subsequently, accounting practice. Accounting and accountants are increasingly important components for innovation and success for organisations operating in today's contemporary environment. Accounting education develops professional accounting competencies in graduates and enables them to follow a career in a competitive labour market. For the purpose of this study, the term 'professional accounting competencies' (PAC) indicates generic skills such as intellectual, communication and interpersonal skills, as well as technical accounting competencies required by future accountants.

Many complex issues are involved in the theory and practice of accounting which can affect the role of accountants. The success of the accounting process depends upon the identification of these issues. Some of these issues have not been completely defined and studied, or precisely measured. On the other hand, one of the issues identified is that accountants require professional accounting competencies to be innovators (King & Masters 2011). Methods of teaching and learning within universities are one way accountants can become more innovative. Consequently, this thesis reports on the identification and investigation of the major issues relating to the success of the profession in a digital age to be innovative. Furthermore, it attempts to provide a basis for clearly understanding the key elements and requirements for the success and effectiveness of the teaching and learning process in accounting education.

Although accounting courses are offered in some pre university level (schools), the best opportunity for education of accountants occurs at university level. Accountants and accounting services are taught at the university level (Ahmad & Gao 2004). Pre university level accounting has been taught in diploma programmes to meet the demand for bookkeepers, clerks and secretaries. On the other hand, university level education appears to be more essential because of the growing demand for accountants and accounting services.

A review of the literature on accounting education suggests that accounting as a university subject, including how it is taught and learnt, appears under-researched in Western countries, and in developing countries such as Libya (Awayiga, Onumah & Tsamenyi 2010) where, recently, some attention has been given to improving teaching and learning of accounting (Fortin & Legault 2010; Jones & Abraham 2008; Mohidin et al. 2009). The available evidence from the last few years shows that passive learning based on the traditional teaching method of 'chalk and talk' seem to be the most widely used method in the teaching of accounting Consequently, growing concerns have been raised over a number of years about the impact of teaching methods on professional accounting competencies, and there are criticisms relating to a lack of knowledge and skills among graduates and their inability either to apply knowledge to real life situations or to communicate effectively in the workplace (Ahmad & Gao 2004; Jackling 2005; Kavanagh & Drennan 2007).

The purpose of this chapter is to provide a broad overview of the research, outline the research plan and introduce forthcoming chapters. This chapter begins with a discussion on the background of the research and the literature review in section 1.2. Next, the research problem and research question is highlighted in section 1.3. The research objectives are then discussed in section 1.4. The motivations of the study

are defined in section 1.5, followed by a discussion on the context of the research in section 1.6 which provides a succinct description and overview of Libya as the setting for the research, demographic and economic information, and teaching and learning accounting development in Libya. The research contributions are defined in section 1.7 and the research methodology is described in section 1.8. The classification of this research design is provided in section 1.9 and limitation of scope is presented in section 1.10. Subsequently, the ethical considerations for the research are addressed in section 1.11. Finally, the thesis structure is discussed, providing descriptions of the six forthcoming chapters in section 1.12.

1.2 Background of the Research and Literature Review

1.2.1 Skills needed by accounting professionals

Accounting and accountants are vital elements of business and society, and a well qualified accounting professionals are thus required. Accounting delivers economic information to users to enable them to make rational decisions. As business provides products and services to the people, accounting plays a crucial role in keeping track of a business's economic resources. Accounting reports on the financial position of a business and informs myriad of people and organisations interested in viable business ventures (Cunningham, Nikolai & Bazley 2004). No business organisation can operate without an accounting system or accountants. Accounting systems protect businesses from mistakes, embezzlement and misuse of available resources, as well as providing financial information to stakeholders. Accountants are the cornerstones to the practice of accounting in organisations.

Currently, the role of accountants has changed from being one of a technical nature to one which is more client-focussed. Change is a significant characteristic of the

environment in which professional accountants work. Pressures for change come from many sources, including (a) globalization, (b) advances in technology, (c) business complexity, (d) societal changes, and (e) the expansion of stakeholder groups, including regulators and supervisory bodies and the broader community. Change requires professional accountants to maintain and develop new and/or more specialized knowledge and skills throughout their careers (IFAC 2009; Reckers 2006). The rapid development and ever-changing needs of the global business environment has resulted in evolutionary changes in the skills required by accountants to add value for their clients (De Lange, Jackling & Gut 2006). In times of such change and development, few would deny that the role of the traditional accountant as a mere score-keeper is no longer a viable contributor to business (Jackling & De Lange 2009). The function of accountants has transformed from being one of a technical role to one which is more client-focussed. The studies above identify different skills as essential elements for a successful accounting education experience.

Therefore, while technical accounting competencies remain obligatory for the professional accountant, these competencies alone are insufficient in today's workplace. Recent studies indicate that development of students' generic skills is required for career success. Accounting practitioners are no longer merely required to undertake the necessary task of information provision such as bookkeeping and data analysis; rather, they are regarded as information facilitators (Jones & Abraham 2008). Furthermore, Hurt (2007) and Young and Warren (2011) emphasise fundamental skills rather than a technical orientation. They advocate that the development of critical thinking skills in future accountants is of primary importance in introductory accounting courses. Research from different perspectives emphasises

that there are additional skills required by accountants other than technical accounting competencies:

From the perspective of Australian graduates, students and academics there have been several studies conducted over the last decades relating to aspects of various perceptions of the skills required by accountants. For example, a study by Rebele (1985) found that accounting students are inclined to rank technical accounting competencies and oral communication skills higher than other skills. De Lange, Jackling and Gut (2006) investigated the emphasis placed on technical and generic skills developed during undergraduate accounting courses from the graduate perspective. They found communication and analytical skills are seen as the most important skills required for the job, however, they do not take into account interpersonal skills. Kavanagh and Drennan (2007) examined accounting academics' perspectives in universities across Australia. Their results showed that, personal skills, team work, logical and routine accounting, strategic management, negotiation, and continuous learning are perceived as important skills for students' careers.

Furthermore, from the perspective of Australian graduates, students and employers there have been several studies conducted to establish the skills required by accountants. Kavanagh and Drennan (2008) examined perceptions and expectations of graduates, students and employers in developing professional accounting competencies. They found the most important skills for successful employment are technical accounting competencies, oral and written communication skills, analytical and problem solving skills, decision-making and critical thinking, leadership, and the ability to work in a team. Their results showed that communication skills—especially writing skills—are considered the most important and valued elements in the accounting curriculum. Jackling and Lange (2009) investigated the emphasis

placed on technical and generic skills developed during undergraduate accounting courses from both the graduate and employer perspective. They found a significant increase in the demand for team building skills, leadership potential and interpersonal skills.

From a USA perspective, Schmidt, Green and Madison (2009) conducted a study relating to the skills required by accountants. Their study aimed to determine accounting department chairs' perceptions of the importance of writing, speaking, listening, and interpersonal and technological communication skills for both the accounting and the business curricula—and where in the curriculum these skills are taught. They surveyed 122 accounting administrators from North American institutions with the largest enrolments in accountancy programs. Survey respondents reported that most obligatory communication courses are in the general business curriculum and, to a lesser extent, in the accounting major. Consistent across demographics, respondents also indicate that all communication skills are important, but writing skills followed by technological skills are considered the most valued in the accounting curriculum; while writing and speaking skills are considered the most important in the business curriculum.

Furthermore, from graduates' and employers' perspectives in developing countries, a study by Awayiga, Onumah and Tsamenyi (2010) explored aspects of various perceptions on the skills required by accountants in Ghana. They examined both the professional and information technology (IT) skill requirements of accounting graduates in Ghana and found the skills required in developed countries—intellectual, communication, and interpersonal skills—are no different from the skills required in developing countries.

All aspects of the literature review clarify the importance of the desired professional accounting competencies (PAC) to be acquired by accountants worldwide from different perspectives. The next section explains the meaning of technical accounting competencies, intellectual, communication, and interpersonal skills.

Technical accounting competencies relate to the process of producing information. Holcomb and Michaelsen (1996) state that accounting students should be taught the process of producing accounting data, which will consequently help them to practise accounting in the real world. Technical accounting competencies include the ability to understand and use accounting data such as tax, debits and credits, and auditing; and understand financial reports and how to prepare financial statements (Kavanagh et al. 2009). Additional technical accounting competencies include interpreting data and reports, identifying findings, evaluating, and organising and managing information and evidence (Hancock et al. 2009). This process of producing information is defined as technical accounting competencies.

Accountants need intellectual skills such as problem solving and critical thinking. Intellectual skills include the ability to relate concepts learned to new situations, the ability to think for oneself, to critically assess new information and situations, and to apply knowledge from one workplace context or problem to another. Kavanagh et al. (2009) defined problem solving as the ability to apply theory to practice, as well as applying critical analysis and thinking skills. Mohamed and Lashine (2003) defined critical thinking as the ability to reach justifiable conclusions to questions that cannot be answered definitively—and where all relevant information may not be available. Intellectual skills help accountants to: a) exercise judgment based on comprehension of an unfocused set of facts; and b) display a capability for inductive-thought process and apply value-based reasoning in unfamiliar settings (Awayiga, Onumah &

Tsamenyi 2010). Undoubtedly, accountants need intellectual skills to perform their job.

Communication skills are essential to the success of accountants. Communication skills are seen as vitally important in satisfying the requirements of the workplace. Kavanagh et al. (2009) emphasise the ability to really listen to and understand clients' needs as an essential communication skill. Communication skills are concerned with the ability to transfer and receive information easily (Andersen 1989; Awayiga, Onumah & Tsamenyi 2010; Ballantine, J & Larres 2009; Hancock et al. 2009). In addition, communication skills include listening effectively to gain information, understanding opposing points of view, and having the ability to present ideas orally or in writing and discuss matters with others (Fortin & Legault 2010; Hancock et al. 2009; Jones & Abraham 2008; Rebele 1985). Communication skills are necessary for the accomplishment of accountants' goals.

Interpersonal skills help accountants to work with others to achieve the goals of the business. Companies require employees with good interpersonal skills and the ability to work in a collaborative environment (Accounting Education Change Commission 1990a). Interpersonal skills include the ability to interact with and influence different kinds of people from different backgrounds and with different value systems, and to negotiate work collaboratively. Interpersonal skills also include the ability to organize and delegate tasks, motivate, resolve conflicts, and enhance client relations and decision making (Awayiga, Onumah & Tsamenyi 2010; Ballantine, J & Larres 2009; Jones & Abraham 2008; Kennedy & Dull 2008). Watson (1928 in Gillies & Ashman 2003) noted that groups think more effective than the best member of the group working alone. Vygotsky (1978 in Kozulin et al. 2003) asserts that a person is able to perform a certain number of tasks alone, however, in collaboration a greater

number of tasks can be performed. The views above enhance the importance of interpersonal skills in accountants.

There is a need for a broader set of skills beyond technical accounting competencies, intellectual, communication and interpersonal skills based on the premise that a) accountants would cope more efficiently in a challenging business environment; and b) accountants' competencies levels would be enhanced—as required by the global market (Jackling & De Lange 2009; Jackling & Watty 2010; Kavanagh & Drennan 2007, 2008; Kavanagh et al. 2009; Mohamed & Lashine 2003). Specifically, Jackling and De Lange (2009) believe a mixture of skills is a major requisite of employers as it helps in solving a diverse range of business challenges. The need for a broader set of skills raises the issue of how universities provide the accounting profession with suitably qualified graduates (Albrecht & Sack 2000). The next section will explore accounting education challenges for coping with changes in the business environment.

1.2.2 Accounting education challenges

A changing world requires a changing style of education. Young people who are being prepared for entry into adult responsibilities need to be equipped with knowledge, skills, and positive attitudes to be successful in today's society. Thus, accounting instructors must continuously assess the accounting curriculum and teaching method in terms of the current status of the academic discipline to provide students with the latest knowledge and skills necessary for taking part in economic activities. The assumed primary obligation of schools, colleges, universities, and other educational institutions is to help students develop the capacity to think clearly, objectively, and with a reasonable degree of sophistication.

Numerous studies have explored the development of accounting graduates to adequately equip them to work in the current contemporary business environment. Accounting literature has emphasised the need for embedding generic skills in accounting graduates according to requirements of the business environment (Ballantine, J & Larres 2009; Jackling & De Lange 2009; Jackling & Watty 2010; Jones & Abraham 2008; Kavanagh & Drennan 2008; Kavanagh et al. 2009). Howieson (2003) believes that the digital age will require even greater changes in accounting practice to meet changes in the business environment which, in turn, will further influence the future direction of accounting education. Stoner and Milner (2010) stated that accounting educators should work closely with various stakeholders to prepare graduates for lifelong learning and successful business careers. Typically, these studies suggest major changes in the teaching and learning of accounting (Accounting Education Change Commission 1990b; Albrecht & Sack 2000; Andersen 1989) to prepare students for work in an accounting career.

Some research in accounting education emphasises the importance of teaching accounting students professional accounting competencies. For example, Albrecht and Sack (2000) stress the significance of skill development throughout accounting programmes. Hodson (1988) argued that since identifying and solving unstructured problems is an essential requirement in the business environment, students should learn to identify and solve unstructured problems by using multiple information sources. Felder and Silverman (1988) suggested that students should be given the freedom to devise their own method of problem solving, rather than being forced to adopt a strategy espoused by university professors. Zakaria and Iksan (2007) assert that accounting students must work in groups as they need this skill in a business environment. Farrell and Farrell (2008) state that team work in a university subject is

sound preparation for participation in the workplace. Mohidin et al.(2009) stated that by working in groups, accounting students fostered greater participation, self-confidence and leadership ability. Most employers do not expect their employees to sit in rows with colleagues without interacting with them (Johnson & Johnson 1994). Therefore, teaching of accounting should enable students to develop the necessary communication and business skills required in the workplace.

The traditional teaching method does not provide the appropriate professional accounting competencies required in today's global accounting environment. The dominant use of teaching methods based on the traditional teaching method in many accounting classes may quite often be a choice (Kavanagh & Drennan 2007). Kavanagh and Drennan (2007) state that current teaching methods place little emphasis on development of students' professional accounting competencies. In addition, a study by Jones and Abraham (2008) confirmed that students who are attracted into accounting courses may not possess the appropriate aptitude that would provide a good foundation for developing the skills currently required in today's global accounting environment. Ahmad and Gao (2004) concluded that the Libyan accounting education curriculum and teaching methods are traditional and do not offer a foundation in the generic skills considered by other countries as fundamental to the contemporary accounting profession. In fact, the traditional teaching method is considered a less desirable approach to teaching accounting and may result in passive students (Abeysekera 2011; Booth, Luckett & Mladenovic 1999; Jackling 2005; Jackling & McDowall 2008; Stephen & Schmulian 2012). Thus, the traditional teaching method in accounting is considered inappropriate for today's business environment.

The traditional teaching method places an emphasis on memory and recalling of facts. In the traditional teaching method, the instructor starts the lesson by presenting information (*delivers* a *lecture*), while the students listen quietly (*passively receives)* (Alhmali 2007; Freire 1996). There is very little interaction between instructors and students in the classroom under the traditional method. In addition, it rarely encourages students to ask questions but, rather, depends heavily on lecturing and memorization. It also encourages students to concentrate on superficial indicators rather than on fundamental underlying principles, thus neglecting deep (active) learning (McCarthy & Anderson 2000). Generally, in traditional teaching environment students rely on their instructors to learn. Within this teaching method the best learner is the one who can reproduce good results in the exam by memorising the content that has been taught.

Thus, traditional teaching models are no longer considered adequate in developing professional accounting competencies. Sawyer (2000) stated that the traditional teaching method is generally ineffective in developing and assessing essential skills. Universally, the training and education of accountants has been the subject of much debate (Jackling & Calero 2006; Kavanagh et al. 2009; Mohamed & Lashine 2003). Accounting educators need to address the expected shift in accountants' skills by developing courses and teaching methods that are more interdisciplinary and analytical in their orientation (Howieson 2003). Kavanagh and Drennan (2007) and Jackling and De Lange (2009) suggest the need for alternative teaching methods in the way accountants are educated to engage students in the learning process and promote professional accounting competencies. Suggested strategies for addressing the identified deficiencies have focused on broadening the curriculum and developing alternative delivery strategies. Studies have reported communication,

self-management, decision-making, problem solving, motivation, and interpersonal skills as aspects not offered in the traditional method (Caldwell, Weishar & Glezen 1996; Greenstein & Hall 1996; Sawyer, Tomlinson & Maples 2000). Yazici (2004) stated that the role of educators lies in understanding these emerging needs and that educators should adapt their teaching to engage learners more effectively in the learning process. Universities are actively seeking updated and contemporary strategies to teach and enhance professional accounting competencies.

Research in accounting education has urged the adoption of alternative teaching models to develop professional accounting competencies. For example, the Accounting Education Change Commission (1990b) suggests that accounting instructors should adopt alternative teaching methods to develop 'critical thinking' skills in accounting graduates. A study conducted by Friedlan (1995) examines the effects of a teaching approach used in introductory financial accounting courses on students' perceptions and attitudes of the skills and abilities important for success in accounting courses and for accounting practitioners. Students enrolled in two courses that used different teaching approaches were surveyed at the beginning and end of the courses. The results show that the teaching approach used in accounting courses has a significant effect on students' perceptions and attitudes. Jones (2010) examined the nature of generic skills and presented a conceptual overview for theorising generic skills. He emphasized that generic skills need to be taught and understood as part of the professional and scholarly practice of accounting. Fortin and Legault (2010) found that using mixed teaching methods promoted generic skills of accounting students more than traditional lectures. Mohidin et al. (2009) promoted the importance of adopting teaching methods to help students better understand

accounting as a discipline. Overall, accounting educators must implement alternative teaching methods to help achieve more effective learning outcomes

1.2.3 Empowerment

Empowerment has been defined in several different ways. Shulman and Luechauer (1993) defined empowerment as the process of enabling people to take personal responsibility and ownership of the tasks they perform. Ashcroft (1987 in Sapon-Shevin & Schniedewind 1991) defines empowerment as 'bringing into a state of belief in one's ability/capability to act with effect'. Her definition stresses the individual's power to achieve his or her own goals. Empowerment was first discussed and conceptualized in the workplace by Thomas and Velthouse (1990). Spreitzer (1995) developed and validated a multidimensional measure of psychological empowerment in the workplace. Frymier, Shulman and Houser (1996) applied the concept of empowerment to the classroom context, and defined learner empowerment as consisting of three dimensions: meaningfulness, competence and impact. Frymier, Shulman and Houser (1996); Tibbles et al (2008); Weber, Martin and Cayanus (2005); and Weber and Patterson (2000) all examined the empowerment concept in the instructional context.

Given that numerous perspectives introduced, empowerment is newly conceptualized in the learning context. According to Ashcroft's (1987 in Sapon-Shevin & Schniedewind 1991) definition, when students are empowered they have the ability to influence their personal, social, political and economic worlds. Empowered learners are more motivated to perform classroom tasks, they feel more competent, find the required tasks more meaningful, and feel they have an impact on their learning process in the classroom (Houser & Frymier 2009). Education for

empowerment means teaching students how to advocate effectively for themselves as individuals, as well as collectively. Furthermore, education for empowerment means developing the insights and skills to work collectively for social justice (Sapon-Shevin & Schniedewind 1991).

Empowerment is a well-researched area. For example, Mailloux (2006) examined the extent to which empowerment helps in acquiring professional autonomy in senior female nursing generic baccalaureate degree students in North-eastern Pennsylvania, USA. He suggested the incorporation of learner empowerment models as substantive theory in nursing education has implications for further research. Educational systems facilitate the empowerment of students and seek to increase the students' readiness to assume more control throughout their educational experiences, thus providing a means of acquiring greater perceptions of autonomy. Houser and Frymier (2009), from the area of communication studies, examined the role of students' characteristics on empowerment, along with the impact of instructor's communication behaviour. The results show that student temperament and learner orientation had little impact on empowerment. Bradbury-Jones, Sambrook and Irvine (2007) explored the meaning of empowerment for nursing students in relation to their clinical practice experiences. Their research found nursing students experience both empowerment and disempowerment in clinical placements, centring on three issues: learning in practice, team membership, and power.

Much of the research into variables affecting the empowerment of students has been conducted in the area of communication studies and nursing (Frymier, Shulman & Houser 1996; Houser & Frymier 2009; Mailloux 2006; Sapon-Shevin & Schniedewind 1991; Weber, Martin & Cayanus 2005; Weber & Patterson 2000). A rigorous review of the literature reveals no investigation of the concept of

empowerment for student learning in accounting education, except for some research conducted by the researcher (Zraa et al. 2011) introducing empowerment in accounting education. Empowerment is an important factor for accounting students since empowered students are more motivated to perform classroom tasks, feel more competent, find the required tasks more meaningful, and feel they have an impact on their learning process (Houser & Frymier 2009). In addition, empowered students have more positive perceptions towards the course content and instructors, and perform more activities that reflect learning.

Accounting students will be empowered and their performance enhanced when professional accounting competencies are combined in accounting education. Communication is important in creating a shared vision for the empowerment relationship (Frymier, Shulman & Houser 1996). Feelings of empowerment are thought to be influenced by relational communication variables such as active listening, open communication, constructive feedback, trustworthiness, credibility and immediacy (Block 1987; Houser & Frymier 2009). Moreover, the feelings of empowerment are lessened when individuals lack self-confidence in their skills and feel intimidated by the task or goal (Frymier, Shulman & Houser 1996). Therefore, when students learn technical, intellectual, communication, and interpersonal skills, they will be empowered to accomplish the objectives in the classrooms.

Frymier, Shulman and Houser (1996) developed an instrument to measure learner empowerment as applied to the classroom. In their instrument, they divided empowerment into impact, meaningfulness and competencies. The students' perceptions about impact mean they can make a difference in the classroom, such as influencing the instructor and other students or providing information in class discussions. Meaningfulness refers to how valuable students perceive a task

according to their personal beliefs and standards. Competence means that a person feels qualified and capable of performing the necessary activities to achieve the goals (Frymier, Shulman & Houser 1996). The results showed that the empowered learner has positive attitudes toward the course content and the instructor, and participated in more activities. Frymier, Shulman and Houser (1996) stated that previous studies concluded that instructor behaviour influences learner empowerment; and that other researchers should explore the concept of learner empowerment in the classroom by investigating other communication behaviours that empower students, along with the impact of empowerment on learning and other classroom behaviours.

There are theoretical similarities between professional accounting competencies and empowerment. According to the literature from the field of accounting education, professional accounting competencies are a combination of technical, intellectual, communication and interpersonal skills, which include the ability to think and solve problems, and communicate and influence others. Similarly, according to Frymier, Shulman and Houser (1996), learner empowerment is influencing others, feeling appreciated and feeling confident to perform the tasks in the class. Both professional accounting competencies and empowerment contain a similar notion of technical, intellectual, communication, and interpersonal skills. Additionally, the ability to communicate and deal with others, can just as easily be restated in Frymier, Shulman and Houser's (1996) definition of the impact as the ability to make a difference. Finally, feelings of competence are stimulated through the utilization of technical and intellectual skills. Supported by the definitions and explanations above, students need to be empowered to have adequate skills in the business environment. Consequently, if the proposed teaching method enhances students' perceptions of

empowerment it would be meeting the criteria of professional accounting competencies.

1.3 Research Problem and Research Question

As a result of these findings, the problem arises that if accounting teaching methods require change, which teaching method would be the most appropriate to examine, and how can this method be tested against the traditional teaching method in terms of its effect on perceptions of empowerment and development of professional accounting competencies in accounting classes. This study will identify an appropriate teaching method to develop professional accounting competencies in line with accounting education objectives and will investigate its effect on students' perception of empowerment, comparing the new method to the traditional teaching method in accounting classes in terms of student learning outcomes and skills development. A clear and prioritised set of recommendations for changes to the accounting education system can then be established to prepare accounting students to respond to real world issues when practising accounting.

This study will provide a framework of accounting education that incorporates generic skills in line with the Australian policy on Learning and Teaching Academic Standards Project (2010) and also with Libyan education policy. This thesis evaluates possible alternative teaching and learning theories which focus on the delivery of professional accounting competencies and students' empowerment in university programmes in Libyan business degree institutions.

The research question and the hypotheses are presented next and are driven from the literature. The cooperative learning (see section 2.3) and empowerment literature has reported that no research has been conducted regarding the effects of cooperative

learning on students' perceptions of empowerment. Moreover, to the best of the researcher's knowledge, no research has been conducted in Libya in first year business degree institutions regarding the cooperative learning method and development of professional accounting competencies (see chapter 2). The following research question and hypothesises are presented:

Research Question

R Q: 'What are the effects of a cooperative learning (CL) (cooperative learning is the proposed teaching method for this research—see chapter 2) teaching environment compared with traditional teaching environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exams in Libya?'

In seeking to answer this research question, the following hypotheses are posed:

H1: There is a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) between students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H2: There is a significant difference in students' perceptions of the development of professional accounting competencies between students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H3: There is a significant difference in students' professional accounting competencies based on the written exams between

students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H4: There are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams.

1.4 Research Objectives

The primary objective of this research is to determine, and then prioritise, major issues for the successful adoption of alternative teaching methods to teach accounting—as well as the effect of the cooperative learning method on students' perceptions of empowerment from the perception of the main stakeholder group in accounting classes. The stakeholder group for this study is identified as accounting students. The study aims to provide a basis for understanding the key elements and requirements for the success and effectiveness of a teaching and learning accounting process. This research incorporates another six interrelated aims, namely:

1. To better understand the effect of cooperative learning on students' perceptions of empowerment and development of professional accounting competencies.

2. To improve the proficiency of accounting graduates in a changing environment (at both the national and strategic levels) to meet contemporary workplace requirements.

3. Introduce the findings of the research to policy-makers in Libya in teaching and learning accounting, and provide current information on these issues and

key concerns to improve and formulate forecasting and policies to promote successful teaching and learning accounting outcomes.

4. Provide the results of this research to academics and researchers who are interested in building models, and provide a broader view and a better understanding of what the major issues are when dealing with successful teaching and learning in accounting classes.

5. Enhance both intellectual advancement and knowledge regarding the teaching and learning of accounting. The results of the research will have an impact in a broader area than the field of this study. The efforts presented in this research will advance and promote the knowledge of the issues for successful alternative teaching methods in accounting.

6. Ascertain how the research methodology adopted will lead to an increased understanding of the major teaching and learning accounting issues.

1.5 Motivation for the study

The prime motivation of this study is to identify, investigate and prioritise the major effects of a cooperative learning method on students' perceptions of empowerment and development of professional accounting competencies. The study provides a basis for understanding the key elements and requirements for the success and effectiveness of a cooperative learning method to teach accounting.

The parameters of development are determined by the rate at which business environment changes take place in a particular society. The current business environment creates a major problem for accounting education. The teaching method challenge is even more problematic in accounting education because of emerging

economies and changes in social systems. Although accounting educators are eager to adopt new teaching methods, the process of adoption has been slow. There is an increased likelihood that these obstacles could potentially affect the success of accountants' jobs: recognising and identifying the major issues for successful future accountants will undoubtedly enhance and facilitate ways of overcoming such obstacles.

1.6 The Research Context

This section aims to provide background information about the research context, which is Libya, and discusses briefly the approach of teaching and learning accounting. Section 1.6.1 presents an overview of Libya as a developing country. Section 1.6.2 describes the demographic information and economic growth of the country. Lastly, section 1.6.3 presents an overview of teaching and learning accounting in Libya.

1.6.1 Overview of Libya

Libya is a developing Arab state located in the north-central part of Africa. Libya is a significant geopolitical force in the heart of North Africa. It is bordered by the Mediterranean Sea to the north, Egypt and Sudan to the east, Tunisia and Algeria to the west, and Chad and Niger to the south. Islam is the state religion and about 97% of Libyans are Sunni Muslim. The country occupies an area of almost 1.8 million square kilometres with a population of approximately six million. Eighty percent of the country is desert. Arabic is the official language, with English and Italian used in trade (Ahmad & Gao 2004). The Libyan social environment is characterized by the extended family, clan, tribe, village, and Islamic religion. These play a major role in community life and people's relationships (Twati 2008).

The history of Libya is marked by its independence in 1951. During its long history this geological characteristic has exposed the country to foreign invasion, including that by the Ottoman Empire which controlled the area from 1750-1911. This was followed by Italian occupation from 1911-1945 and, subsequently, by British and French invasions. Libya obtained its independence on 24 December 1951 (Clarke 1963). The first locally-constituted government was a monarchy, under King Idriss (1951-1969). Thereafter, it became the Republic of Libya or Socialist People's Libyan Arab Jamahiriya and stayed that way for four decades (Mahmud & Russell 1999). After popular movements overturned the rulers of Tunisia and Egypt, its immediate neighbours to the west and east, Libya experienced a full-scale revolt beginning on 17 February 2011. On 27 February 2011, the National Transitional Council was established under the stewardship of Mustafa Abdul Jalil, Gaddafi's former justice minister, to administer the areas of Libya under rebel control. And the unrest continues unabated at this time in Libya.

1.6.2 Demographic and economic information on Libya

Until 1951, Libya's economy was marked by severe levels of poverty. Prior to 1951, the country faced its severest levels of poverty, with dependence on foreign aid and foreign predominance. The Libyan economy changed after the discovery of oil and Libya saw its first export of oil and the reduction of its dependence on foreign aid in 1961 (Clarke 1963). A decade later Libya became one of the world's most important oil exporting countries. It became the fourth largest producer in Organization of Petroleum Exporting Countries (OPEC) with approximately seven percent of the world's oil production (Heitmann 1969; Otman 2008).

Libya is owner to the largest oil reserves in Africa and main supplier to Europe. Libya holds 3.34% of the world's reserves. About 95% of Libyan exports go to Europe. Libyan crude oil is valued for its geographic proximity to Western countries. A significant geological feature of Libya is its onshore oil fields near to the coast and close to Europe. The natural flow of oil towards the sea has helped Libya to produce oil relatively cheaply compared to its competitors. The importance of its location makes Libya a major oil producer and one of Europe's biggest North African suppliers (John 2007). Its location between the developed economies in the West and growing economies of North Africa has enabled it to reduce transport costs, thus increasing the significance of its supplies to the oil market (Yahia 2008). Libya has one of the largest oil reserves in North Africa and is one of the major suppliers to Europe.

The Libyan economy is dependent on oil as the main source of wealth. Libya joined the OPEC in 1962 and its economy is heavily reliant on oil revenue (John 2007; Otman 2008; Yahia & Saleh 2008). Oil revenue represents more than 95 percent of Libyan export income, contributing 60 percent to the annual GDP for the period from 1963 to 2006 (Yahia 2008). While the economy largely depends on oil as its main source of wealth, the country has allocated a large amount of money to establishing industrial companies in non-oil sectors over the last decades. On the other hand, the country still faced difficulty in being able to produce enough capital goods and consumer goods to achieve 'self sufficiency' and 'self-reliance'(Ahmad & Gao 2004).

Despite the discovery of oil reserves, beneficial effects were slow to develop due to a lack of production and exports. This was primarily caused by a shortage of capital and expertise in the management and accounting fields. The latter was caused, in

part, by academic underdevelopment in the country (Clarke 1963). There were just 16 students who graduated from universities in 1949, and no citizen in the country had a PhD (Abouzied 2005).The industrial sector was undeveloped and there was a lack of capital and skills to manage it. Likewise, Libya did not have adequate capital to exploit its oil. This lack of capital hindered development and, thus, foreign companies were encouraged to invest in Libya.

In the 1950s the Libyan Government followed an open door policy. The Libyan Petroleum Law of 1955 No.25 was the first law to establish a framework for comprehensive oil legislation (Otman 2008). The petroleum law was tolerant and generous in order to attract international oil companies to invest in the oil industry and conduct further exploration. This was followed by fast development of upstream activities in the Libyan oil sector (Otman 2008). At that time, obvious success of the policy stimulated the Libyan Government to pay out significant amounts of money.

Libya attracts foreign investment from a diverse range of countries for exploration, production, transportation and refining of oil. The Libyan oil industry has exploration and production sharing agreements with companies from countries such as Italy, the United States of America, the United Kingdom, Canada, Australia, Japan, China, Brazil, France, Germany and Spain. Companies were attracted by the relative political stability of Libya and by the concessionary agreements whereby oil companies paid the Libyan Government an initial fixed payment to obtain concessions. The Government took a share of 50 percent of net income based on prices determined mainly by oil companies. Consequently, the discovery and exploitation of oil in Libya was accomplished mostly by foreign interests that brought investments and technological skills, and the oil produced went to foreign markets (Heitmann 1969). Moreover, the agreement allowed companies the privilege

of awarding price discounts to their customers. Oil companies were also allowed a 25 per cent reduction allowance (Mahmud & Russell 2002). In 1961 amendments to the agreement occurred, thus, the 50-50 split was based on the posted price (Clarke 1963).

Libyan economy suffered for a long period from the UN sanctions United Nations Security Council (2003). Yahia and Saleh (2008) conclude that these sanctions resulted in negative effects on non-Libyan workers in the oil industry who were replaced by local workers. That meant skilled non-Libyan workers were retrenched and multinational companies suffered from this loss of non-Libyan workers. Production and exploration were also affected. At the time of the sanctions, production of oil was approximately 1.723 million barrels per day, compared to three million barrels per day in the early 1970s (Otman 2008). The UN sanctions severely affected the Libyan economy.

In 2003 when the Security Council lifted sanctions the Libyan economy recovered rapidly. Libya abandoned its program to develop weapons of mass destruction in return for increased detente. Consequently, the lifting of the sanctions helped to improve the Libyan economy (Otman 2008). As Libya's political isolation ended and it re-joined the international community, it reintegrated into the global economy and adopted a free market economy (Yahia & Saleh 2008). These developments increased opportunities for international trade to benefit the economy. In 2004 LNOC (an association), introduced a further incentive to increase international companies' confidence in the Libyan oil sector (Otman 2008). Therefore, American international companies returned to their original concessions and obtained eleven licences covering 98,673 km^2 across fifteen areas. This represented about 78.3% of the total area offered. Those companies are Occidental, which now has 36.75% of

the area in its participation agreement with LNOC, and ConocoPhillips, Marathon and Amerada Hess which all hold 40.83% interests in Waha Oil Company (Otman 2008). Overall, the Libyan economy improved after the Security Council lifted sanctions.

The conflict in 2011 between rebels and Muammar Gaddafi has had a severe impact on the Libyan economy which has suffered serious short-term damage. The war shut down production, and Libyan's oil production stopped for a little while. Libya's economy contracted more than 50 percent in 2011 after eight months of fighting that paralysed its oil industry. Libya, a nation that once produced about 1.7 million barrels per day of crude, is now pumping out a trickle of that volume. Oil production came back to about 700,000 barrels per day. In August 2011, Libya had used up about 62 percent of its oil reserves and urgently needs to find alternative sources of income to rebuild its war-torn economy. Successful transitions require international assistance. The new government has improved its relations with the west, offering significant opportunity to attract foreign investment.

It is abundantly clear that Libya changed after the revolution and increased foreign investment. These changes can be seen in its lifestyles, economic systems, societal structures, education systems, and management practices. The investment of foreign companies in this important sector of the Libyan economy has a direct impact on accounting education as accounting education prepares employees for employment. The impact of accounting education within this important sector of the Libyan economy is of significant interest, especially in view of the scarcity of research in this regard.

1.6.3 Overview of teaching and learning accounting in Libya

Libyan education

The Libyan government has developed its education system at a great rate. All Libyans were guaranteed the right to education at all levels. A general education system from primary level to university level was established (Ahmad & Gao 2004). Around 150.000 primary and secondary schools were established all over the country with 1.7 million students. The first nine years of education are compulsory, and free to every child in Libya. It is known as basic education, and children enrol at the age of 6. It consists of six years of primary school and three years of secondary school. Currently, the secondary education level consists of six branches or specializations: life sciences, engineering, basic sciences, economy, social sciences and languages (Arabic, English, French, Hausa and Swahili) (Higher Education in Libya 2011).The literacy rate is the highest in North Africa; over 82% of the population can read and write. After students complete secondary education level, they are eligible to study in higher education institutions (universities).

Libyan higer education

Higer education was established in nine universities all over Libya and in 90 faculties. The University of Libya was founded in Benghazi in 1955, with a branch in Tripoli. In 1973 the two campuses became the University of Benghazi and the University of Tripoli respectively, and in 1976 they were renamed Gar Yunis University and Al Fatah University respectively. After the revolution in 2011 they changed back to their original names: University of Benghazi and the University of Tripoli respectively. The law determines that the higher education sector comprises public and private universities. Over 340,000 students enrolled in all universities in

Libya in the academic year 2008/09—about 57 % of them female—and more than 90% are enrolled in public universities. Higher Education in Libya (2011) stated that all students are eligible to study in higher education institutions (universities). Higher Education is completely financed by the government, except for private education. Master and postgraduate degree students pay a symbolic fee. Higher Education sends the best students to study aborad with full scholarships to obtain Masters and PhD degrees. Currently, more than 10,000 students are studying abroad in more than 30 countries (Higher Education in Libya 2011).

The general goals of Libyan education and Libya education policy (2008) are: a) students are required to acquire the necessary basic knowledge according to the individual student's levels; b) develop students' thinking skills to solve problems, propose solutions, and take responsible decisions towards different issues; c) enable students to acquire and possess communication skills; d) enable students to develop capacities for collective action, and their ability to work in groups; e) enable students to be well-organised and develop their different abilities; and (f) help students to achieve a balance between theoretical knowledge and practical applications.

Libyan accounting education

Throughout the 400 years that Libya was a colony of various powers there was little education provision. When independence came in 1951, more than 90% of the population was illiterate; and very few Libyans had studied at university level or qualified as professional accountants (Ahmad & Gao 2004). Accounting education at university level commenced in 1957 with the establishment of the Accounting Department in the Faculty of Economics and Commerce at the University of Libya (now called University of Benghazi). Before dealing with that it is useful to explain skills and competency requirements within the Libyan social, political and economic context. Since its inception in 1957, the Accounting Department in the Faculty of Economics and Commerce at University of Benghazi has been the most influential force in accounting education in Libya. During the period 1957–1981, the University of Benghazi was the only institution that offered accounting education at university level. The growing demand for accountants and accounting services in the 1980s increased the need to provide accounting education at the higher education level. As a result, other universities also began to offer accounting programmes.

As a consequence of the increasing number of accounting departments and degree programmes in accounting, there was an acute shortage of academic accounting staff. Lecturers from various Arabic countries were recruited to teach at these institutions. In addition, these universities and higher institutes created part-time positions. It was very common that an accounting department had only one or two full-time lecturers and the remainder of the staff were working part-time from other universities or industry. In most cases, the founding lecturers of these newly-established accounting departments came from the Accounting Department of University of Benghazi and, subsequently, six other newly-established departments

have more or less the same accounting programmes and delivery systems as the University of Benghazi—even textbooks are a carbon-copy of those used at University of Benghazi (Ahmad & Gao 2004).

Accounting education has received considerable attention, and the provision of accounting education has largely expanded since the 1980s. Management training and development programmes have been established to achieve more independence and self-sufficiency of the national economy under the Development Plans of 1980 (Ahmad & Gao 2004). Indeed, the recent economic expansion has resulted in a growing demand for both qualified accountants and reliable accounting information.

Although circumstances in Libya differ from the West, the above fundamental principles and standards can be applied. The functions of accounting are increasingly similar to those in Western economies following the recent growth of the private sector, the changing business environment and the increasing influence of globalization (Ahmad & Gao 2004). The complexity of the economy (because of the expansion of the non-oil sectors) means that accounting is increasingly recognized as an important part of management, and a control function that can be used to manage the economy more effectively.

The old accounting education curriculum of 1957–1976 was greatly influenced by the British education system, as Libya was administered by Britain during the period 1943–1952, and many University of Benghazi accounting faculty members were educated in the UK before they came to Libya to teach.

A bachelor degree programme was offered over a period of four years. The academic year in some faculties of economics and commerce follow the semester system (16 weeks) and others follow the whole academic year system which is a nine-month

year (Higher Education in Libya 2011). In the first two years, which were common years for all three departments in the University's Faculty of Economics and Commerce, students were required to obtain general background knowledge of accounting and related disciplines such as economics, management and statistics. In the final two years, students focused on a specialist area in one of the departments.

Problems and challenges in Libya's accounting education system

Accounting education literature and accounting international organizations emphasize teaching professional accounting competencies to accounting students. IFAC (1996) and the Australian Learning and Teaching Council (2010) stress that a programme of accounting education and experience must emphasize a set of knowledge, skills and professional values broad enough to enable adaptation to change accountants. Accounting graduates who become qualified professional accountants should be characterized by striving constantly to learn and apply what is new. Professional accounting competencies are characterized by developing skills and strategies that help one learn more effectively and using these effective learning strategies to continue to learn throughout one's lifetime (Jackling 2005; Jackling & McDowall 2008; Jackling & Watty 2010; Kavanagh & Drennan 2007).

A significant problem with Libyan accounting education is that the curricula and teaching methods do not offer the base skills suggested by accounting education literature and the Australian Learning and Teaching Council (2010). It is clear from the previous discussion that the Libyan accounting education system is strongly influenced by other foreign systems. It was brought mainly from Britain and North America during the latter years of the colonial period and via the UN after independence. However, the accounting profession and accounting educators have

overlooked this important element of developing students' ability to adapt to change. Moreover, there is no evidence in the curricula of sufficient attention being given to general skills and professional values as defined by IFAC (1996), accounting education literature and the Australian Learning and Teaching Council (2010). The traditional approach to teaching accounting in Libyan accounting education is still dominant, with the emphasis on the transfer of knowledge. Learning is defined and measured strictly in terms of knowledge of principles, standards, concepts, facts and procedures at a point in time (Ahmad & Gao 2004) and these other elements outlined above have largely been ignored in the design of the accounting curricula (Ahmad & Gao 2004).

1.7 Research Contributions

This study is undertaken with the expectation that it will produce numerous contributions. Firstly, Kavanagh and Drennan (2007) point out that choice of teaching method is recognised as a major contributor to producing accounting graduates in the business environment, and how students acquire their necessary professional accounting competencies in classrooms. In general, there has been relatively little research undertaken on teaching and learning accounting. This study, therefore, contributes to and extends theoretical knowledge by advancing the understanding of the teaching and learning process in the context of accounting education, particularly to fill the gap in the accounting education literature relating to successful accounting education studies.

Secondly, key issues in accounting education studies have been conducted for many years in many countries and regions (see chapter two). However, research on accounting education in developing countries remains scarce (Al-Twaijry 2010).

Therefore, this research study makes further contributions by clearly identifying, investigating and prioritising recommendations for successful teaching and learning processes from the stakeholders' point of view in Libya accounting education, how the implementation of the cooperative learning method (see section 2.3) promotes the success of teaching and learning accounting process, and its effect on empowerment and the development of professional accounting competencies. Identifying the cooperative learning method has high relevancy in the teaching and learning process as a whole, from assessment and selection to development.

Thirdly, in previous literature there are studies and research on teaching and learning applying constructivism and Social interdependence theory (see chapter two) and considerable research has been conducted in constructivism in promoting teaching and learning (for example, Baviskar, Hartle & Whitney 2009; Fosnot 1989; Ji-Ping & Collis 1996; Joyce, Weil & Calhoun 2009; Mayer 2004; Mostyn 2012). Johnson and Johnson (2005) found that Social interdependence theory is one of the most critical theories to be applied in the education research field. However, there is no evidence of any specific study in the literature applying constructivism and Social interdependence theory and its effect on students' perceptions of empowerment in accounting courses (Johnson & Johnson 2005, 2007; Mostyn 2012). Consequently, this study explores the application of Social interdependence Theory and its effect on students' perceptions of empowerment to fill this gap in the literature.

As an important methodological contribution, this study applies cooperative learning method and its effect of students' perceptions of empowerment and development of professional accounting competencies towards understanding the teaching and learning process. To the best of the researcher's knowledge, the effect of students' perceptions of empowerment has not been investigated in previous accounting

education studies; such perceptions, if applied appropriately, could allow upcoming researchers to uncover some of the embedded issues related to the teaching and learning accounting process from the perception of stakeholders (students).

1.8 Research Methodology

A research methodology is an essential element of any research and is an operational plan created from the research design. The research methodology brings a more detailed description of the approach taken in the research. It includes the characteristics of data, data collection instruments and the data collection process (Gable 1994).

Having defined the research problem, presented the motivations for the study, outlined the research context and the research contributions, the research methodology is now presented. The research methodology in this study can be described as a descriptive, explanatory, and comparative approach through the interaction with study participants. Therefore, this research seeks to determine if using the cooperative learning method in the accounting classroom promotes students' perceptions of empowerment and develops students' professional accounting competencies based on students' perceptions and written exams compared with the traditional method of teaching. To determine these variables the researcher implemented the Learner Empowerment Scale to measure empowerment and its dimensions: impact, meaningfulness and competence of students, and professional accounting competencies scales together with pre and post written exams and reflections toward those methods in accounting classes. Researchers have applied and used the Learner Empowerment Scale to a wide range of fields and situations including the health care industry, communication studies, education and

business (Frymier, Shulman & Houser 1996; Houser & Frymier 2009; Mailloux 2006).

1.9 Classification of Research Design

A variety of research approaches have been recommended for classification of research use in the area of accounting education studies. These research approaches can be classified as: (1) scientific research approaches (descriptive research approaches) and (2) interpretive research approaches, including experiments, surveys, pre and post written exam, and reflections. This study is experimental and comparative research; and it applies control groups and experiment groups.

1.10 Limitation of Scope

Three limitations have been recognised in this research. The first limitation concerns the nature of the research. As stated in the research problem, the purpose of this research is to identify teaching methods which could provide students with professional accounting competencies, investigate its effect on students' perceptions of empowerment, and prioritise recommendations for successful accounting teaching and learning processes. Thus, this research is conducted in the field of accounting education and it focuses on the effect of the cooperative learning method on students' perceptions of empowerment in accounting classes, rather than teaching method applications.

The second limitation relates to the selection of key stakeholders, that is, students in accounting classes. Initial discussions with stakeholders have proposed that the research focus is on students as the major stockholder group as they are recognised

as active, knowledgeable, and dynamic groups who can evaluate the effect of empowerment using different teaching methods.

The final limitation is related to the context of the research. The research was undertaken in Libya. Given the specific political, social, cultural, economic, and technological context of Libya, the overall success of this teaching and learning process may be of interest to other similar countries.

1.11 Ethical Considerations

Consideration and protection of participants involved in studies is an axiom and a necessary step in undertaking research. An ethical clearance protects participants from any harm or adverse consequences of surveying them in terms of any ethical issues associated with the conduct of the research (Creswell 2009). These procedures protect the integrity of both participants and researchers. In this regard, the University of Southern Queensland's (USQ) policies and regulations require students who are conducting research to apply for ethical clearance prior to conducting their survey. Since this study deals with students, ethical clearance from USQ was obtained prior to conducting the study. Endorsement from Human Research Ethics Committee was granted under number H10REA262.1 from 01 March 2011 to end of December 2012 (see appendix G). The researcher took steps to ensure the study did not jeopardise participants' integrity, dignity, or privacy. Written consent from students was sought before commencing the study. The survey, and the pre and post written exams were re-identifiable. Confidentiality of participants was ensured and no concerns were received during the project.

1.12 The Thesis Structure

This thesis consists of seven chapters, which are outlined and summarised briefly in this section. The structure of the thesis is organised as follows:

Chapter Two – Literature Review

This chapter provides a review and critique of relevant prior research from the literature, and provides a summary of current state of teaching methods. The topic areas discussed in the literature review include teaching method criteria, teaching methods and related learning theories and application of teaching method criteria, and teaching and learning theories. This chapter also puts forward the theoretical framework and research question.

Chapter Three – Research Methodology and Design

This chapter describes the research methodology applied in the Learner Empowerment Scale, pre and post written exams, interviews and reflections of the study. The chapter begins with an overview of the Learner Empowerment Scale, pre and post written exams, interviews and reflections in terms of its background, its advantages, and intrinsic issues, and the selection of these methods. The chapter then details the research design and outlines the data collection process, including the procedure for selecting classes to be examined. The chapter concludes with a discussion of the interpretation of findings.

Chapter Four – Findings from quantitative data analysis

This chapter describes descriptive statistics used to evaluate the difference between the independent variables (*teaching methods*), and dependent variables (*impact, meaningfulness, and competence*), (*pre and post* written exams) and (*professional*

accounting competencies) analysed using SPSS software. Outcomes associated with t-testing for the difference of the means of the different groups on students' perceptions of empowerment, pre, and post written exams and professional accounting competencies are also presented in this chapter.

Chapter Five – Findings from qualitative data analysis

This chapter presents the interpretation of findings derived from the qualitative data, including observation of the classes and interviews with the students.

Chapter Six: Discussion

This chapter juxtaposes the results of the analysis and discusses the findings. It outlines and discusses the major findings of the study and also discusses methodological considerations.

Chapter Seven: Conclusions and Implications

This chapter summarises the research findings in terms of the main study findings relating to the application of cooperative learning method and its effect on students' perceptions of empowerment and professional accounting competencies. This chapter also outlines implications for theory and methodological practice and provides recommendations for future research into this topic.

1.13 Conclusion

Chapter 1 has laid the foundation for this dissertation. In this chapter the background of the research was described, the research problem formulated, and research objectives and motivations highlighted. Subsequently, the research context of the study was provided, and research contributions were defined. This was followed by a

description of the research methodology, classification of research design, and limitation of scope of the research. Next, ethical considerations for the research were addressed and, finally, an outline of the forthcoming chapters of the thesis was provided.

CHAPTER TWO
LITERATURE REVIEW

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

A review of prior relevant literature is an essential feature of any research study. The aim of this chapter is to review the relevant literature; and explore the emerging fields and foci on related areas for research development in choosing an appropriate teaching method to teach future accountants, and outline the research methodology.

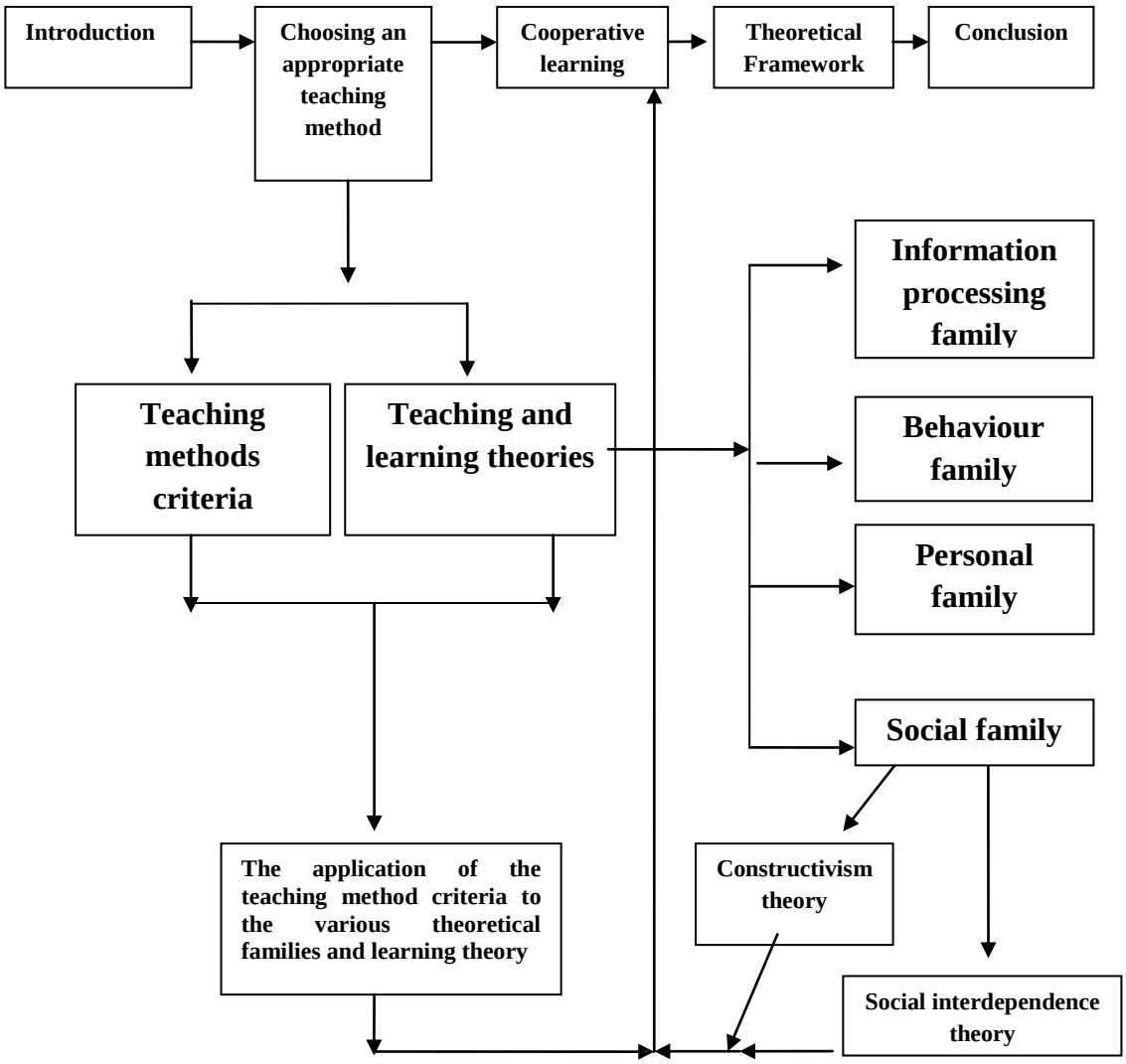
The literature review achieves several functions:

1. It links the current study to the significant ongoing dialogue in the literature about the field under study.
2. It summarises the results of other studies that are related to the current research.
3. It shows similarities and differences in previous research.
4. It provides the foundation for the development of the present study and the best methodology for addressing the research problem.
5. It serves as a source of explanation to support the steps of data collection, data analysis, and composition of the final findings.

Thus, section 2.2 reviews the literature on the choice of an appropriate teaching method for future accounting education. It presents the definition of teaching method criteria, which are professional accounting competencies as a process to produce accountants, teaching methods, and related learning theories, and offers information about constructivism theory and Social interdependence theory. Section

2.3 discusses cooperative learning method. Section 2.4 offers the theoretical framework. Finally, section 2.5 provides a conclusion for this chapter. Figure 2.1 provides a visual structure of this chapter.

Figure 2.1: Visual structure of chapter 2



2.2 Choosing an Appropriate Method to Teach Future Accountants

The first step in choosing an appropriate teaching method for accounting education is to categorize and describe the criteria for choosing the teaching method and the potential teaching method options.

2.2.1 Teaching method criteria

The Australian Learning and Teaching Council through the Learning and Teaching Academic Standards Project has provided a thorough set of criteria for determining what is necessary to be taught in accounting education. The statement prescribes threshold-learning outcomes that all providers of Bachelor and coursework Master degree programs in accounting are expected to meet. These criteria meet international academic standards for accounting. In a report published recently by the Australian Learning and Teaching Council and Learning and Teaching Academic Standards Project (2010) it identified the knowledge and skills required by accounting graduates in a changing business environment. These requirements include *knowledge, judgement, application skills, communication, teamwork, and self- management.* The Australian Learning and Teaching Council (2010) report also states that the threshold learning outcomes for Bachelor graduates in accounting from all Australian tertiary providers should be able to demonstrate the following:

Knowledge

Integrate theoretical and technical accounting knowledge that includes a selection of auditing and assurance, finance, economics, quantitative methods, information system, commercial law, corporation law, and taxation law.

Judgement

Exercise judgement under supervision to solve routine accounting problems in a straightforward context using social, ethical, economic, regulatory, and global perspectives.

Application skills

Critically apply theoretical and technical accounting knowledge and skills to solve routine accounting problems.

Communication and teamwork

Justify and communicate accounting advice and ideas in a straightforward collaborative context.

Self- management

Reflect on performance feedback to identify action learning opportunities and self-improvement.

The objectives outlined in the Australian Learning and Teaching Council policy document on accounting education are consistent with the requirements of accounting education literature and Libyan education policy. The Australian Learning and Teaching Council, accounting education literature and Libyan education policy all require students: a) to acquire the necessary basic knowledge according to the individual student's level (*knowledge*); b) develop students' thinking skills to solve problems, propose solutions, and take responsible decisions towards different issues (*judgement*); c) enable students to acquire and possess communication skills; d) enable students to develop capacities for collective action,

and to work in teams (*communication and teamwork*); and e) enable students to be well organised and develop their individual abilities (*self-management*). In addition, help students achieve a balance between theoretical knowledge and practical applications (*application skills*). Therefore, the criteria for choosing a teaching method emerged from the Australian policy on Learning and Teaching Academic Standards Project (2010), the accounting education literature and Libyan education policy on the development of education (National Report of Libya (2008) and are used to evaluate possible teaching models to teach accounting.

Critical to this is an understanding of the appropriate teaching methods and related learning theories discussed in the next section.

2.2.2 Teaching methods and related learning theories

The second step in choosing an appropriate teaching method for accounting education is to categorize and describe the potential options in teaching methods. All teaching methods are based on models of teaching. Many of these models vary in precision, theoretical orientation and critical components. Joyce, Weil and Calhoun (2009, 2011) reviewed a large number of teaching models and categorised these teaching models into four families. They discuss the characteristics of their underlying learning theories, examine the research that has tested them, and illustrated their uses. These four families of teaching models are described as information processing family, behavioural family, personal family, and social family. The aim of this research is not to review all those families of teaching models. Rather, each of these families is examined in relation to the criteria listed above, and an appropriate teaching method was chosen to compare with the traditional teaching method in Libyan business institutions.

The information processing family and its related learning theory views students as receptacles of memorised information that needs to be organised. The models in the information processing family focus on the way learners handle information. The information processing family emphasises ways of enhancing a student's innate drive to make sense of the world by acquiring and organizing data. The most typical instructional methods suggested by the information processing metaphor are lecturing and presenting textbooks. The role of the instructor in the information processing system is one of a dispenser of information and students are the recipients (Mayer 1996). The information processing family model has its roots in information processing theory. Information processing theory focuses on how people respond to environmental events, encode information to be learned, and relate the information to knowledge and memory (Schunk 1996). The main criticism of information processing theory is that it takes a mechanistic view of the mind and objectifies the student as an unimaginative, passive object. Information processing theory ignores emotional, affective and motivational aspects; and social, cultural and epistemological aspects (Mayer 1996).

In the behavioural family and behavioural theory, students learn passively when the instructor reinforces positive behavioural responses. Teaching based on the behavioural family relies on exercises that provide consistent repetition necessary for effective reinforcement of response patterns (Reid 2005). In behavioural families the material is presented to the students as individuals (Joyce, Weil & Calhoun 2009, 2011); and students learn passively through instructor–centred approaches which are described as direct teaching and appear to play a limited but important role in a comprehensive education programme (Joyce, Weil & Calhoun 2009, 2011). The most typical instructional methods suggested by the behavioural models are

drilling and practise of basic skills. Behavioural theory assumes that learning takes place as a result of a response that follows a specific stimulus. The role of the instructor in behavioural theory is a dispenser of rewards and punishments (Mayer 1996). Therefore, in behavioural models students do not engage actively in learning. Banet and Ayuso (2003) stated that the theory of constructivism rejects behavioural models because behavioural models assume students are passive receptors.

The traditional teaching method fits both the information processing and behavioural families. Both the information processing family and behavioural family focus on the instructor's delivery and the students' capacity to memorize. Since such a teaching method focuses merely on delivery and students' memorization, it misses out the opportunities to teach students the necessary skills required for future accountants. Also, some of the researchers consider the traiditonal teacxing method as a less desirable approach in teaching accounting (Badri 2007; Booth, Luckett & Mladenovic 1999; Holcomb & Michaelsen 1996; Jackling & McDowall 2008).

The personal family of teaching models focuses on the development of the integrated feeling and thinking self. The personal family of teaching models shapes the environment around the capacity for self-education and the need to develop self-awareness and understanding (Joyce, Weil & Calhoun 2009, 2011). In the personal family an individual constructs and organises his or her reality (Ji-Ping & Collis 1996). The instructor respects the students' ability to identify their own problems and formulate solutions (Joyce, Weil & Calhoun 2009, 2011). Students only focus on their self-interest, are responsible for their own destinies and personal success, and ignore as irrelevant the successes and failures of others (Johnson, Johnson & Smith 2007; Joyce, Weil & Calhoun 2009, 2011). The most important criticism of

teaching using the personal family is that it hampers the teaching of interpersonal skills by focusing on the individual.

Since the personal family has some epistemological links to the social family, the learning theories related to these two families will be followed. Aspects of the social family of models are outlined in the following section.

The social family of teaching models is oriented toward developing social interaction among students to promote academic learning. The models of teaching under social family are called cooperative learning method. Most advocates of social family models believe that the central role of education is to prepare citizens to generate integrative democratic behaviour, both to enhance individual and social life and to ensure a productive democratic social order (Joyce, Weil & Calhoun 2009, 2011). The social family of teaching models is oriented toward developing social relations between students and their culture and drawing upon social sources (Ji-Ping & Collis 1996). In other words, the social family of teaching models merge learning and society together. The social models of teaching are constructed to take advantage of phenomena by building learning communities. When students engage in dialogue with their peers, they internalise the language of interactions and use this language to organize their individual learning. In other words, when students work together and interact with their peers and instructors, they can explain and discuss each other's perspectives—which leads to a greater understanding (Johnson & Johnson 2002). In addition, working together builds and improves students' self-esteem, social skills, and solidarity across academic learning goals (Johnson & Johnson 2005; Joyce, Weil & Calhoun 2009, 2011).

Table 2.1 provides a brief description of teaching models in the social family. These models are adapted from the Models of Teaching by Joyce, Weil & Calhoun (2009, 2011).

Table 2.1 Social Family Models

Models	Developer	Purpose
Partners in learning Positive interdependence	David Johnson Roger Johnson Margarita Calderon Elizabeth Cohen	Development of interdependent strategies of social interaction. Understanding of self-other relationships and emotions.
Structured inquiry	Robert Slavin (Aronons)	Academic inquiry and social and personal development. Cooperative strategies for approaching academic study.
Group investigation	John Dewey Herbert Thelen (Shlomo Sharan) (Bruce Joyce)	Development of skills for participation in democratic process. Simultaneously emphasises social development, academic skills, and personal understanding.
Role-playing	Fannie Shaftel	Study of values and role in social interaction. Personal understanding of values and behaviour
Jurisprudential inquiry	Donald Oliver James Shaver	Analysis of policy issues through a Jurisprudential framework. Collection of data, analysis of value questions and positions, study of personal beliefs.

The following section reviews the principles of constructivist thoughts.

Constructivism theory

Constructivism is an educational theory which emphasizes pure discovery learning, and its cornerstones include the works of Piaget (1954) and Vygotsky (Cole et al. 1978). The basic premise of constructivism is that knowledge is not transmitted directly from one to another; however, learners individually or collaboratively construct the knowledge and make sense of presented material (Baviskar, Hartle & Whitney 2009; Fosnot 1989; Ji-Ping & Collis 1996; Joyce, Weil & Calhoun 2009; Mayer 2004; Mostyn 2012). Essentially, psychological constructivism is based on the idea that knowledge is constructed and made meaningful through an individual's interactions with the environment (Biggs 1993; Westwood 2008) and developing the knowledge based on personal experiences, ideas, and learners' deep understanding of knowledge (Baviskar, Hartle & Whitney 2009; Nie & Lau 2010). Constructivism requires learners to be active in the learning environment, able to understand the

content of study and enjoy learning, and learn to think in an efficient way. Based on the studies of Piaget, constructivism is all about creativity and knowledge (Huang, Rauch & Liaw 2010). Consequently, in turn, to move toward successful learning, the constructivist educational environment is transferring from educator-driven to learner-driven, that is from passive to active learning.

Constructivism is a student-centred learning theory. Constructivism is a learning theory that is student-centred since the emphasis is on students as active learners (Gijbels & Loyens 2009). Based on constructivism, Sapon-Shevin and Schniedewind (1991) asserted that students must be given opportunities to construct knowledge themselves so that they can develop a sophisticated appreciation of the nature and limitations of knowledge and understand the extent to which knowledge is a social construction that reflects the social, political and cultural context in which it is formulated (Sapon-Shevin & Schniedewind 1991). Also, Gomleksiz (2007) suggested that the learning environment should be designed in a learner-centred style to ensure all students have an opportunity to contribute to their learning.

Active learning allows learners to be highly creative and explore new knowledge through existing knowledge. Active learning refers to a mental representation of a learner to realize her/his own mental processing (Zhenlin 2009). In active learning, the key point is the ability to combine ideas and concepts from prior knowledge (Sajadi & Khan 2011). The educational setting from the constructivism perspective concentrates on the need for learner-driven learning, which means learners are actively involved in the learning process to assimilate new information into their existing knowledge structure (Baviskar, Hartle & Whitney 2009; Fosnot 1989; Huang, Rauch & Liaw 2010). In this regard, the educator provides the learning environment for learners. Therefore, the role of educator is to facilitate an

appropriate environment, while the learner's role is to construct knowledge through interactions with the environment. Constructivist learners need to develop their awareness and autonomy. This means learners should feel responsible for their learning.

In constructivism theory, learning is a process through which learners discover concepts, facts, and principles by themselves to achieve successful learning outcomes. Accounting students should learn in such an environment to acquire professional accounting competencies needed for their future career. However, accounting education did not escape the widespread influence of constructivism and resulting pedagogy. There is no accounting research demonstrating that this method makes learning more effective than other methods (Mostyn 2012). Including constructivism in this study is one of the research contributions.

The next section reviews the principles of Social interdependence theory.

Social interdependence theory

Social interdependence theory has been widely applied in education and business, and was formalised in the 1940s by Morton Deutsch (Johnson & Johnson 2005). Deutsch recognized three types of Social interdependence: positive, negative, and an absence of Social interdependence. The basic premise of Social interdependence theory under Deutsch's view is that the type of interdependence within a situation is determined by an individual's interactions, which subsequently determines outcomes (Johnson & Johnson 2005). The idea of interdependence among group members has influenced most of those investigating questions centred on cooperative learning method, most notably Johnson and Johnson (2005). They believe that learning occurs when the goals of individuals are affected by each

other's actions. Moreover, individuals are open to the influence of others and are willing to exert influence on their collaborators. Social interdependence exists when individuals share similar purposes for a task; success is also shared and relies on others' actions (Johnson & Johnson 2005). Social interdependence theory assumes all participants have equal power. The theory was not constructed for situations in which there are power differences (Johnson & Johnson 2005).

The cooperative learning method is a teaching method based on the constructivism and Social interdependence theory where students work in small groups to help one another. Social interdependence theory provides a foundation for the cooperative learning method (Johnson & Johnson 2007). Much of the cooperative learning method is built on Vygotsky's work (Huang, Rauch & Liaw 2010). If the cooperative learning method is organized and gives consideration to constructivism, students' achievement and social skills will improve (Acar & Tarhan 2007). Collectively, constructivism and Social interdependence theory promote teaching and learning in accounting and is part of the personal and social family. In constructivism, the focus is on the individual constructing knowledge through cognitive processes of analysing and interpreting experiences (Baviskar, Hartle & Whitney 2009). The similarity between constructivism and personal family is their focus on constructing knowledge by individuals. In Social interdependence theory, however, knowledge is not solely constructed within the mind of the individual; rather, it is the interactions within a social context that involve learners sharing and constructing their ideas and beliefs (Johnson & Johnson 2005).

Social interdependence theory is part of the social family and focuses on the social interactions among students as a primary source of knowledge that cannot be gained in isolation from other students. The most typical instructional methods suggested

by constructivism (Mayer 1996, 2004) and social interdependence theory (Johnson & Johnson 2005, 2007) are discussion, guided discovery, and supervised participation in academic tasks. The instructor's role ranges from observer to a facilitator. The instructor is providing students opportunities to promote each other's success and produce the necessary interaction among students required for mutual success, directing and helping students to achieve group objectives (Rassuli 2011; Summers & Svinicki 2007). The instructor monitors students' interactions. Cooperatively, constructivism and social interdependence theory focus on constructing knowledge by individuals and together this promotes teaching and learning of accounting. In other words, constructivism and social interdependence theory helps students to reassess their understanding of the world and to construct new conceptions that fit better with the feedback they are receiving (Gillies & Ashman 2003). Cooperative work rarely replaces instructor instruction but, rather, replaces individual lectures and drill work. Learning needs to be perceived as something a learner does, not something that is done to a learner (Johnson, Johnson & Holubec 1993).

As has been indicated, the social family of teaching combines a belief about learning and society that promotes constructivism and Social interdependence. A key benefit of social family models is that cooperative interactions in classrooms are beneficial for students socially, as well as intellectually (Joyce, Weil & Calhoun 2009). The main purpose of accounting education in any country is to produce responsible accountants for the digital age. The combination of these beliefs has resulted in the development of many student-centred teaching models based on the principles of constructivism and social interdependence theories, including the many cooperative learning method in which students work together in small groups to help each other

and develop greater skills (Johnson & Johnson 2002, 2005; Joyce, Weil & Calhoun 2009, 2011).

2.2.3 The application of the professional accounting competencies criteria to the various theoretical families and learning theory

Constructivism and social interdependence theories meet the criteria provided for choosing a teaching method; nevertheless, information processing and behavioural theories did not. The teaching methods under information processing and behavioural families, including the traditional teaching method, do not meet all the desired criteria need to teach accounting. The information processing and behaviour families can teach students technical accounting competencies; however, they do not do a good job of teaching students the full range of professional accounting competencies. By memorising and staying passive in the classroom, students will not develop their knowledge, judgement, application skills, communication, teamwork and self-management. The information processing family and the behavioural family are not appropriate choices to teach accounting. Constructivism and Social interdependence theories include cooperative learning method more appropriate to teach future accountants.

A number of studies have found that the cooperative learning method, compared to the traditional teaching method, can improve knowledge, judgement, application skills, communication teamwork, and self- management. For example, Goudas and Magotsiou (2009) found the cooperative learning method in physical education programs have developed students' social skills and attitudes. Johnson and Johnson (2005) reviewed over 750 research studies in a variety of cultures on the relative merits of cooperative, competitive, and individualistic learning. They found the

cooperative learning method tends to promote critical thinking, interpersonal relationships, and higher achievement than competitive and individualistic learning. Also, Zain (2009) found cooperative learning groups in economic studies have a more positive attitude towards the subject, communication skills and social skills compared with traditional teaching method.

Furthermore, accounting education literature states that cooperative learning method helps to develop students' professional accounting competencies. For example, studies have reported that the cooperative learning method help students to improve their communication, self-management, decision-making, problem solving, motivation, and interpersonal skills—benefits not offered by the traditional method (Caldwell, Weishar & Glezen 1996; Greenstein & Hall 1996; Sawyer, Tomlinson & Maples 2000). Miglietti (2002) suggested the importance of using small groups in introductory accounting courses. He concluded that group learning could foster critical thinking skills, improve interpersonal skills, and increase active participation in learning; and students experience greater empowerment and enhance their achievements.

Recently, many researchers have established that the cooperative learning method facilitates developing students' professional accounting competencies. For example, Caldwell, Weishar and Gleze (1996) examined attitudes toward accounting by students enrolled in either financial or managerial accounting and found positive perceptions of accounting from cooperative learning activity than from a lecture format (traditonal method). Ballantine and Larres (2007a, 2009) provided evidence that final-year undergraduate accounting students believe the cooperative learning method to be effective in delivering students' professional accounting competencies within a accounting degree. They also found that the cooperative learning method is

a more effective method than simple group learning and the traditional teaching method for delivering interpersonal and communication skills. Also Opdecam and Everaert (2012) provided evidence that first-year undergraduate accounting students perceived that cooperative learning can improve soft skills such as problem solving and time management.

In addition, Farrell and Farrell (2008) found that the cooperative learning method provides students with good opportunities to develop the interpersonal, professional and written communication skills needed in their professional life in international accounting. Cheng and Chen (2008) found that the cooperative learning method is more effective in improving students' attitudes toward accounting and learning of accounting and suggested adopting the cooperative learning method as a teaching method among accounting students. Yazici (2004) describes how collaborative activities—ranging from exams to projects and role playing—enhance the understanding of operations management (OM). The author found that the collaborative learning method improved undergraduate business students' understanding of quantitative OM methods, developed their strategic thinking skills, and enhanced their confidence in their critical-thinking and implementation skills. The exercises also increased students' comfort level in communicating and working with their peers and enhanced their independent learning skills. However, Hosal-Akman and Simga-Mugan (2010) explored the effect of teaching methods on academic performance of students in accounting course and their results showed that there was no significant difference in academic performance between different groups. They stated that the cooperative learning method does improve interpersonal and communication skills, however, these skills are not assessed by written exams.

The evidence above suggests that the cooperative learning method delivers better learning outcomes than the traditional method does.

Furthermore, the accounting education literature states that previous education may or may not impact on students' learning. For example, Hwang, Lui and Tong (2005, 2008) examined developed students' professional accounting competencies—even students previously educated in passive learning environments—compared with the traditional teaching method. They found that the cooperative learning method is more effective than the traditional method for students who were educated in a passive learning environment to develop students' professional accounting competencies. However, in assessing the impact of cooperative learning method on students' performance and motivation to learn, Clinton and Kohlmeyer (2005) found no differential effect on students in group quizzes. These results may be attributable to the effect of prior academic achievement and group formation on performance (Van der Laan Smith & Spindle 2007).

An important rationale of cooperative learning method is empowerment of students, and allowing them to develop their latent skills and knowledge to the greatest extent possible. The safety of the group allows the quiet student to gain self-confidence to share ideas in a secure environment (Farrell & Farrell 2008). The cooperative learning method not only enhances students' learning, but also improves critical thinking, communication and group process skills (Fortin & Legault 2010). Cooperative learning method is a pedagogy that provides personal power and group support and helps students and instructors become empowered (Sapon-Shevin & Schniedewind 1990). Therefore, the use of the cooperative learning method can create a positive learning environment where students can improve their learning, as outlined in the theoretical base of the social interdependence theory view of Johnson

and Johnson (2005). The positive learning environment leads to students feeling comfortable in the classroom and, subsequently, experiencing a greater sense of empowerment.

Consequently, student-centred teaching and learning through the cooperative learning method and empowerment has a particular relevance to the present study. The cooperative learning method based on constructivism and social interdependence theory meets all the criteria listed in this study. In addition, social interdependence theory has inadequate conceptual clarity and detail about its effect on empowerment. This study adopted the cooperative learning method and related teaching and learning theories as alternative teaching methods to the traditional teaching method which still dominates Libyan accounting classrooms. Therefore, cooperative learning method is considered an appropriate method to teach accounting students for a career in accounting. The cooperative learning method is trialed in first year business degree institution as an alternative to the traditional teaching method of teaching that dominate classroom practices in accounting classes using experimental design.

There were many reasons for choosing the first course of the first year. The course is compulsory for all students in the first year of study at business degree institutions in Libya. Accounting Education Change Commission (1992) and Wilkerson Jr (2011) emphasized the importance of the first course for students in accounting stating that 'the first course shapes potential accounting majors' perceptions of (1) the profession, (2) the aptitudes and skills needed for successful careers in accounting, and (3) the nature of career opportunities in accounting'. Also, Farrell and Farrell (2008) asserted teaching communication skills requires a concerted effort from the

first year in accounting programs. Therefore, those students need to be familiarized with important skills from their first course at business degree institutions. Besides, most of the work done in accounting education and cooperative learning method was in advanced courses.

In the literature most research applied experimental designs to assess the difference betweeen cooperative learning and traditional teaching method using differant variables (Ballantine, J & Larres 2007a, 2009; Ballantine, J. & Larres 2007b; Caldwell, Weishar & Glezen 1996; Hwang, Lui & Tong 2005, 2008; Moustafa & Aljifri 2009; Opdecam, Evelien & Everaert 2012; Opdecam, E. et al. 2012; Zain et al. 2009). Therefore, the experimental design can be considered an appropriate research method to assess the difference between cooperative learning and traditional teaching methods. Consequently, this research adopted the experimental design to assess the difference between cooperative learning and traditional teching methods on students' percpetions of empowerment and development of professional accounting competencies.

After choosing the cooperative learning method the next section provides a broader definition of the cooperative learning method.

2.3 Cooperative Learning method

There are different terms for cooperative learning method. Some researchers consider cooperative learning, collaborative learning, peer learning, and group learning as different terms, whereas others use them as synonyms that are interchangeably used to define a process in which students at all levels of performance work together in small groups to achieve an educational task (Boehm & Gallavan 2000; Boud, Cohen & Sampson 1999).

Nevertheless, various definitions have been developed to define cooperative and collaborative learning over the years and some contrasts and differences are apparent between the different writers in the field. For example, Sapon-Shevin and Schniedewind (1991) took a broad view, regarding cooperative learning as a form of critical pedagogy that helps move schools and societies closer to the ideal of social justice. Others such as Johnson, Johnson and Smith (2007) defined cooperative learning as students working in groups where they are expected to help each other find answers to their questions rather than seeking answers from the instructor. Cooperative learning is viewed by Vygotsky's work (Cole et al. 1978) as part of a process leading to the social construction of knowledge. From these definitions, cooperative learning encourages interactive learning in which instructors and students construct new knowledge through social interactions in a context that enhances creativity and a free exchange of ideas.

2.3.1 Elements of cooperative learning method

Applications of the cooperative learning method under social interdependence theory are required to operationalize specific environments to create promotive or oppositional interaction that will lead to desired outcomes. Five essential elements must be present and certain objectives must be realised in the learning environment to achieve cooperative learning method. Johnson and Johnson (2005) defined cooperative learning method under very particular conditions which are: positive interdependence, individual accountabilty, face-to-face interaction, appropriate use of social skills, and group processing. These elements are discussed in turn.

2.3.1.1. Positive interdependence

Positive interdependence simply means that one student succeeds only if the other students succeed. Johnson and Johnson (2005) stated that individuals achieve more under positive goal interdependence than they did when they worked individually but had the opportunity to interact with classmates. Johnson (2003) stated there is evidence that positive interdependence tends to motivate individuals to try harder. The goal of developing original lesson plans is to strengthen positive interdependence. Sharing document resources, for example, is a practical method of achieving the objective of positive interdependence (each group had only one information package for the task; the instructor asked the student groups to reach a consensus on finding a solution). Each student in the group needs to know the answer so they can, if chosen randomly by the instructor, explain the answer to the class.

2.3.1.2 Individual accountability

Individual accountability and personal responsibility mean that students are held accountable for learning. Tanner, Chatman and Allen (2003) stated that individual and group accountability is achieved by grading students both on their individual work and on the work of the group. All members of the group need to be clear about their own task or role and be accountable for achieving the group goals, ensure that students take the task seriously, and check each other to ensure that both are prepared to answer (Johnson & Johnson 2005, 2007). Some of the ways to structure individual accountability include (a) giving an individual test to each student, (b) randomly selecting one student to represent the entire group, or (c) having each student explain what they have learned to a classmate (Johnson & Johnson 1994,

2007). However, Johnson and Johnson (2005) stated that this opportunity for working in groups may cause free riding by some group members.

It is important the group members know that a 'free rider' situation will not be productive. A free rider or unbalanced participation exists when students escape responsibility in group activities. These students do not care if they are ignored, as long as they pass their course. This can lead to unwillingness by students to participate in activities and can have a negative influence on group productivity. If every group member decides to be a free rider, the work emanating from the group will be deficient. Positive interdependence is assumed to produce responsibility forces that enhance individual accountability among students in completing and facilitating the work (Johnson & Johnson 2005). Therefore, each student is responsible for learning the assigned material in order to respond correctly to quizzes and to contribute positively to group results.

2.3.1.3 Face-to-face interaction

Face-to-face interaction creates more active learning environment. Through interactions, students promote learning by sharing, helping, supporting, encouraging, and praising each other's efforts to learn (Johnson & Johnson 1991). It is believed that cognitive activities and interpersonal dynamics occur only when students get involved in promoting each other's learning (Johnson & Johnson 1991; Kagan 1994; Slavin, 1996). This includes orally explaining how to solve problems, discussing the nature of the concepts being learned, teaching one's knowledge to classmates and connecting present with past learning. In addition, face-to-face interaction provides and promotes opportunities for students to develop personal relationships that are

essential for developing pluralistic values (Johnson & Johnson 1989; Johnson et al. 1993a).

The arrangement of furniture is an extremely important aspect in a cooperative learning classroom. A common method is to arrange groups of four into what are called 'pods'. This results in students being in very close proximity to each other to enable them to communicate effectively with each other; although the groups need to be far enough apart that they do not interfere with each other's learning. The arrangement of the room creates environmental interdependence and provides a clear access lane to every group, which increases individual accountability and provides data for group processing (Johnson & Johnson 1994, 2007).

The size of the group is an important factor in obtaining a meaningful face-to-face interaction in cooperative learning method. It is a common perception that as the size of the group decreases, the amount of pressure peers may place on unmotivated group members increases, and vice versa (Johnson & Johnson, 1991). The size of the group needs to be small, but could range from two to six members.

Interaction might be achieved by requiring group members to challenge one another's point of view, discuss concepts being learned and share knowledge. The group experience should ensure that students are given the opportunity to achieve and improve social and small group skills such as leadership and oral communication (Jong, Wu & Chan 2006).

2.3.2.4 Appropriate use of interpersonal and small group skills

The fourth element of cooperative learning method is interpersonal and small group skills. Students are required to learn the interpersonal and small group skills in order

to be a productive group member because skills such as these do not appear magically when cooperative learning method is implemented. In addition, it is unrealistic to expect all members of a group to come to group tasks fully equipped with the social skills necessary for cooperation (Tanner, Chatman & Allen 2003). Hence, students must be taught such skills if they do not already possess them, and must be motivated to use these skills (Jacob, 1999; Johnson & Johnson, 1991). Ways to foster skill development include teaching leadership, decision-making, trust-building, communication, and conflict-management (Johnson & Johnson 1991). These skills are necessary for students to manage both teamwork and task work successfully in cooperative learning method, and are important to learn as future accountants.

2.3.2.5. Group processing

Group processing is the fifth element of cooperative learning method. Group processing exists when group members are given the time and opportunities to discuss and evaluate how effectively the groups are working to achieve their goals (Johnson & Johnson 1994, 2005; Tanner, Chatman & Allen 2003). The purpose of group processing is to clarify and improve the effectiveness with which members carry out the processes necessary to achieve the group's goals (Johnson & Johnson 2005).

Instructors are assigning group roles to each student and often should be randomly. Students' roles for example: facilitator, reporter, or recorder. These roles could help in achieving the aim of group processing. Students can work together effectively when they are assigned roles. Furthermore, in group processing, members are expected to express respect for each other and each other's contributions to the group efforts (Johnson & Johnson 2005). These techniques help to increase students'

skills, self-esteem, social skills. In addition, learning occurs as students contribute their unique knowledge and insights to the problem under review. This provides every member of the group an entry point for participation and begins to generate individual responsibility within the group (Tanner, Chatman & Allen 2003).

In summary, Davis (1993), and Johnson and Johnson (1994) have provided some guidelines for instructors implementing cooperative learning method. Table 2.2 provides a summary of their suggested guidelines.

Table 2.2: Guidelines for Instructors Implementing Cooperative Learning method

Create cooperative learning environment by gradually teaching students the social and interpersonal skills necessary to work in cooperative groups
Start with students working cooperatively in pairs before introducing small groups of about four heterogeneous member teams.
Arrange the classroom in a way that group members can sit face-to-face to interact and promote communication within the groups
Assign group roles such as group leader, recorder, time keeper, material manager, participation checker, etc.
Explain all learning and group tasks clearly and allow students to ask questions. Make sure group objectives are clearly defined and individual groups know exactly what they should come up with when the tasks are completed. Let students know exactly how long they will have to complete their assigned tasks
Let students know that when working in cooperative groups students are responsible for their own learning, as well as the learning of others
Monitor group activities and encourage them to work cooperatively. Let students know the importance of equal participation, and intervene if necessary.
Provide specific feedback at the end of each assigned tasks outlining how well each group worked together
The instructor should indicate the academic and social objectives of the lesson before the lesson begins.

2.3.2 Types of cooperative learning method

There are three types of cooperative learning method—formal cooperative learning groups; informal cooperative learning groups; and coperative base groups—all of which are described individually as follows:

2.3.2.1. Formal cooperative learning groups

Formal cooperative learning groups is the first type of cooperative learning method. Formal cooperative learning groups range in length from one class period to several weeks to complete a specific task or assignment (Johnson & Johnson 2007; Johnson, Johnson & Holubec 1993). Instructors can plan and structure any academic task, assignment or course requirement for formal cooperative learning. There are five steps recommended that instructors need to follow before and during the implementation of a lesson using formal cooperative learning.

According to Johnson and Johnson (2007) and Johnson, Johnson and Holubec (1993) these steps are: firstly, instructors need to specify the academic and social objectives to be learned from the lesson or small group skills to be used and mastered during the lesson. Secondly, instructors need to make a number of decisions before implementing the lesson regarding the size of groups, the method of assigning students to groups and their assigned group roles, the materials needed to conduct the lesson, and how the room would be arranged. Thirdly, instructors need to explain the task and the positive interdependence and individual accountability. Fourthly, instructors need to monitor students' learning and intervene within the groups to provide task assistance or to increase students' interpersonal and group skills. Finally, instructors need to assess students' learning and help students process how well their group functioned.

2.3.2.2. Informal cooperative learning groups

The second type of cooperative learning method is informal cooperative learning groups. Informal cooperative learning groups are temporary, ad-hoc groups that last from a few minutes to the duration of the whole class (Johnson, Johnson & Holubec 1993). Informal cooperative learning groups can be used at any time. According to

Johnson and Johnson (2007) and Johnson, Johnson and Holubec (1993) informal cooperative learning groups are especially useful during direct teaching such as lectures or demonstrations to focus students attention on the material to be learned. This method of learning sets a mood conducive to learning, helps set expectations regarding what the lesson will cover, ensures that students are cognitively processing the material being taught, and provides closure to an instructional session. Informal cooperative learning groups can give instructors direction and insight into how well students are aware of the material presented.

2.3.2.3. Cooperative Base Groups

Base groups consist of three or four participants who stay together at least one year. Cooperative base groups are long-term, heterogeneous cooperative learning groups with stable membership, whose primary responsibility is to provide each student with the support, help, encouragement, and assistance needed to progress academically. Base groups provide students with long-term committed relationships that help groups personalise the work required and the learning experiences in the course, and improve the quality and quantity of learning. Base groups meet regularly (for example, daily within and between classes, or bi-weekly) to discuss the academic progress of each member, discuss assignments, and help each other with homework (Johnson & Johnson 2007). This study will not use cooperative base groups as their use is primarily long term.

In all cooperative learning method types listed above the instructor has a role in group formation, group management, and group assessment. Group formation is the choice between self-selection and intentional group formation. Self-selection is attractive to students, however, it does not guarantee the diversity of perspectives and abilities within groups necessary in a cooperative learning environment. Indeed,

self-selection may result in good student achievers getting together and the weaker students being left to struggle (Johnson & Johnson 1994). Group management is the next step after group formation and includes instructor involvement. Group management is essential, as students lack experience in project management, time management, conflict resolution and communication skills required for high performance teamwork (Oakley et al. 2004). Simply placing students into groups and requiring them to work together does not necessarily promote cooperative learning method (Gillies & Ashman 2003). Instructors should structure the work in such a way that ensures these skills are covered in a cooperative learning method.

Despite the benefits listed above, cooperative learning method has some weaknesses. For example, Ballantine and Larres (2007a, 2009) believe cooperative learning method has problems such as the lack of ability to prepare for or attend group sessions and is time consuming, particularly for students taking on part-time employment.

The next section focuses on the theoretical framework that has been used in study.

2.4 Theoretical Framework

Constructivism and Social interdependence theories provide a framework for the present study to investigate current teaching and learning accounting methods (traditional method) and cooperative learning method and their effect on students' perceptions of empowerment and development of professional accounting competencies in accounting classes at Libyan business degree institutions. The next section will discuss the views of constructivism, Social interdependence theories, cooperative learning method, and traditional teaching method and their effect on

empowerment and development of professional accounting competencies in accounting classes.

Constructivism and Social interdependence theory are rooted in the belief that knowledge is constructed and that knowledge is acquired through learners' interactions with the environment. A constructivist perspective theory hypothesises that learning is a process in which students construct knowledge and give their own meaning to knowledge based on their prior experiences, mental structures, beliefs, interactions, and background knowledge (Gillies & Ashman 2003). A key principle in this view is that learning is dialogic and social. The learner experiences events and socially negotiates meaning in the authentic context of a complex learning environment (Cole et al. 1978). A social interdependence theory of learning views human intelligence as originating in the society or culture (Johnson & Johnson 2005) in which the individual's cognitive gains occur first through interpersonal interaction with the social environment, which then influences the intrapersonal. Constructivism and social interdependence theory also recognises that challenging and helping students to correct their preconceptions and misconceptions is essential to effective learning (Schunk, 2000). Therefore, it is believed that when students engage in dialogue with their colleagues, especially more competent partners and adults, they internalise the language of these interactions and use it to organize their individual learning (Berk, 1994).

Informed by constructivism and Social interdependence theory, the research assesses whether cooperative learning method and constructivism and Social interdependence theory results in an increased level of empowerment and development of professional accounting competencies in students compared to traditional approaches to teach accounting.

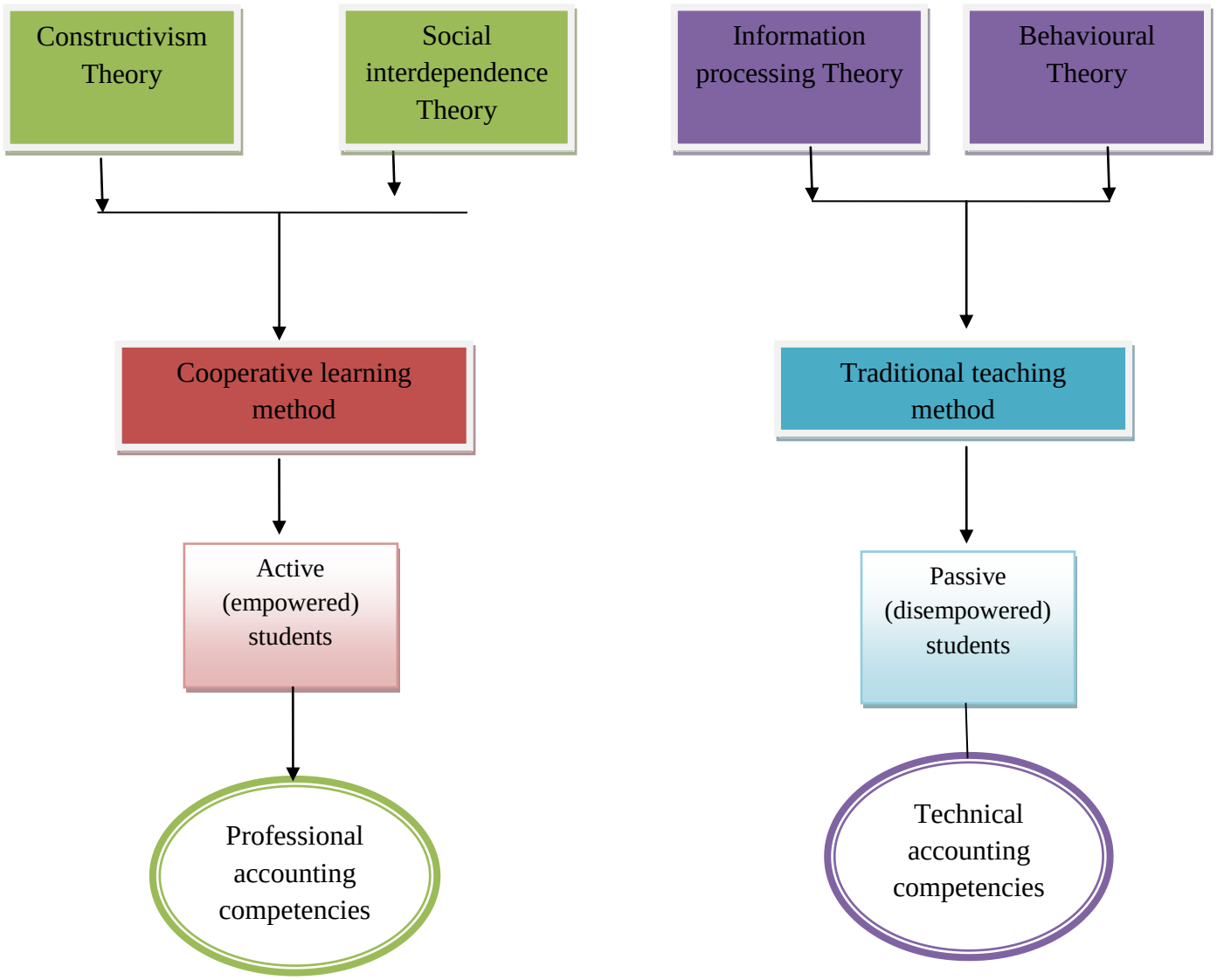
Implementing traditional teaching method are disempowered students in their acquisition of technical accounting competencies. First, the process of traditional teaching method implementation requires instructors to stand in front of the class and for students to stay quiet in the classroom. The instructors' isolation from students makes students feel uncomfortable in the classroom which, in turn, will give students negative attitudes toward the instructor and the course content and they will perform passively. Secondly, weak classroom interaction among students and the instructor helps in creating and building an unsupportive community which can decrease the performance level of each member. Students cannot interact with one another; they cannot explain or discuss each other's perspectives. Furthermore, some students are often receptive to their instructors; others refrain from interrupting instructors who they perceive as threatening. Fostering isolation between students and instructors can disempower students in learning. This feeling of increased disempowerment can lead to students learning only technical accounting competencies for their careers.

However, implementing cooperative learning method empowers students for develop of professional accounting competencies. First, the process of cooperative learning method implementation requires instructors' engagement with students in classroom learning. The instructors' engagement with students ensures students feel comfortable in the classroom which, in turn, will give students positive attitudes toward the instructor and the course content; and they will perform more actively (Frymier, Shulman & Houser 1996). Secondly, classroom interaction among students helps in creating and building a supportive community which can raise the performance level of each member (Johnson & Johnson 2002). When students work together and interact with their peers, the instructor and in a contextual setting, they

can provide information and explain and discuss each other's perspectives—leading to greater understanding of the material to be learned (Gillies & Ashman, 1998, 2003; Johnson & Johnson, 2002). The involvement provides opportunities for students to define questions in their own language to find the answer rather than reproducing information presented by their instructors. Furthermore, some students are often receptive to their peers' ideas rather than their instructors', as their peers' ideas are seen as less threatening. Fostering a community of learning can empower students in learning. This feeling of increased empowerment can lead to students learning not just the material, but the complementary skills needed in their careers. Students feel empowered when they participate and engage effectively with instructors and other students in the classroom. This creates an environment for students to reflect on their own understanding, seek additional information to clarify contradictions, and attempt to reconcile their perspectives and understanding to resolve any inconsistencies (Gillies & Ashman 2003).

The theoretical framework presents constructivism and social interdependence theory and constructs knowledge of individuals through cooperative learning method and an interactive process in which they are given the tools and the opportunity to construct their own knowledge and meaning in a supportive social context. Participating in processes in which students formulate and construct various knowledge forms will also enable students to understand how various groups within a society often formulate, shape, and disseminate knowledge that supports their interests and legitimize their power (see figure 2.2).

Figure 2.2: Theoretical Framework developed for this study



Source: developed by the researcher

2.5 Conclusion

In summary, the above teaching methods and learning theories provide a conceptual understanding of the present study that focuses on implementing a cooperative learning method to teach accounting at university level. The cooperative learning method appear to link with constructivism theory and social interdependence theory. Hence, the following section examines research on teaching and learning in order to further understand the effect of the teaching method on students' perceptions of empowerment and development of professional accounting competencies based on students' perceptions and written exams in relation to research on teaching and learning in accounting education.

This chapter provides divergent views of various scholars on teaching and learning as a comprehensive concept, teaching and learning in general, and teaching and learning accounting in particular. The latter has been presented considering its broadest sense and its implications for future career requirements in developed and developing countries. Teaching and learning accounting has certainly become widely acknowledged as a tool that can enable the growth of development of professional accounting competencies in accounting education. Some scholars have identified the importance of teaching and learning professional accounting competencies that could promote or determine future accountant development and application in countries worldwide.

This chapter has provided a list of four families of teaching methods and briefly described the characteristics of each family separately. The families of teaching methods are identified as the information processing family, the behavioural family, the personal family, and the social family. This chapter also provided background

information for various theories of learning, including information processing theory, behavioural theory, constructivism theory, and social interdependence theory.

Literature published in the period from the 1980s to the 2010s paints an overall picture of key teaching and learning accounting issues using traditional teaching method in different countries. This review has provided an examination of the issues currently being discussed in leading teaching and learning publications. The discussion of the periodic key issues in the literature in different countries has further provided an alternative teaching method, namely, a cooperative learning method that is worthy of research and inquiry and provides a broader context for this study into teaching and learning accounting processes.

CHAPTER THREE

RESEARCH METHODOLOGY

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In any research, the methodology is crucial in meeting the research objectives. This chapter outlines and justifies the research methodology and design used to accomplish the objectives of the research project. It consists of two sections, as follows.

The research context and the theoretical development of this study was outlined and explained in the previous chapters. Thus, the focus now turns to the actual design and implementation of the research process. The literature identified in this chapter was gathered from the relevant research studies. This chapter begins with the pilot study conducted and a broad overview of the research design of the main study and moves on to discuss the particular methods employed in collecting the research data and the course design. This is followed by an outline of the description of how the data were analysed, and then a conclusion is offered.

3.2 Pilot study

There are advantages in conducting pilot studies before going to the research context. It permits a thorough check of the planned statistical and analytical procedures, giving the researcher a chance to evaluate the usefulness of data. The researcher may then be able to make alterations to the data collection methods and, therefore, analyse data in the main study more efficiently. A pilot study often provides researchers with ideas, approaches and clues they may not have foreseen before conducting the pilot study. Such ideas and clues increase the chances of obtaining clearer findings in the main study. It can greatly reduce the number of

unanticipated problems because researchers have the opportunity to redesign parts of their study to overcome difficulties that the pilot study may reveal (Woken 2010). One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated (Van Teijlingen & Hundley 2001).

3.2.1 The objective of the pilot study

The pilot study compared a traditional educational environment in Libya (Ahmad & Gao 2004; Alhmali 2007; Rhema & Miliszewska 2010) with a collaborative education environment in Australia. In addition, the study examines how these teaching methods affected students' perceptions of empowerment in accounting courses. It provided valuable insights to the researcher before conducting the main research.

The main objective of the pilot study was designed to check any difficulties the researcher might face when applying the main research. The pilot study provided the opportunity to:

1. Redesign parts of the main study and overcome difficulties.
2. Reduce the number of unanticipated problems.
3. Refine the instrument used in this study.
4. Check and practise data analysis steps.
5. Test the hypotheses and develop new hypotheses more suitable for the main study, if necessary.

6. Support the main research focus if there are not many changes between the pilot and main study.
7. Check the research method and the instrument. As indicated earlier, the main study will be conducted in Libya where people speak Arabic; with the research being conducted in English at the Australian university.
8. Empirically explore the role of culture difference on students' perceptions of empowerment in accounting education, although this initially was not of concern.
9. Assist the researcher to decide how to ensure proper implementation of the research methodological proposal and to minimize instructor difference.

The researcher gained much experience while conducting the pilot study.

3.2.2 Pilot study question and hypotheses

RQ: What are the relationships between students' perceptions of empowerment, accounting course perceptions[1] see (Zraa, Kavanagh & Johnson Morgan 2012) , and classroom instruction in a first year accounting course at Libyan and Australian business degree institutions?

In order to answer the research question, the following sub hypotheses were formulated.

1. Course perceptions affect decisions a about choice of major, career goals, and other educational factors (Caldwell, Weishar & Glezen, 1996).

H1: There are significant differences between Libyan and Australian students in students' perceptions of empowerment, its dimensions (impact, meaningfulness, and competencies), and course perceptions.

H2: Course perceptions positively predict students' perceptions of empowerment, its dimensions and course perceptions among Australian and Libyan students.

H3: Australian students who worked in collaborative classes perceive they have an impact in the classroom, and are more empowered than Australian students who worked in a traditional classroom at business degree institution.

3.2.3 Pilot study setting

The value of selecting students from Libya and Australia business degree institutions is attributed to the fact that Australian students are educated in a collaborative teaching environment in primary and secondary school, as well as at university; however, Libyan accounting students have, to date, been taught in a very traditional way. Chapter one fully explains the Libyan context.

3.2.4 Pilot study participants

The sample consisted of 247 Libyan students and 162 Australian students (a total of 409 students). The sample of Australian students consisted of 83 students who were taught using traditional teaching method and 78 students who were taught using collaborative method at Australian business degree institution. The participants in the study are from both genders and aged between 18 and 23 years of age and studying accounting. The regular instructors from both the Australian and Libyan

institutions conducted the classes involved in this pilot study. However, for the main study the Researcher conducted all classes.

3.2.5 Data collection

Survey was distributed to the samples in the pilot study. Two scales and demographics were used—the Learner Empowerment Scale (LES) developed by Frymier, Shulman and Houser (1996) (See section 3.2.3.1) and course perceptions scale used by Geiger and Ogilby (2000).

3.3 Main Study

After conducting the pilot study, the researcher started to apply the main study to avoiding the problems raised in the pilot study. This section outlines and justifies the research methodology and design used to accomplish the objectives of the research project. It consists of five sections, as follows:

3.3.1 Research Design (Quasi-experimental design).

3.3.2 Data Collection.

3.3.3 Course Design.

3.3.4 Data Analysis and Interpretation.

3.3.5 Conclusions.

3.3.1 Research Design (Quasi-experimental design)

This research applied a quasi-experimental design. The experimental design compared the effects of a cooperative learning method (CL) with traditional teaching method (TM) on students' perceptions of empowerment, and the development of professional accounting competencies in Libya. A quasi-experimental design

requires two groups—'an experimental and a control group (Bernard 2000; Leedy & Ormrod 2005), however, the difference between a quasi-experimental and experimental is that in the former, participants are not randomly assigned but groups can be randomly assigned (Cheng & Chen 2008; Gabbin & Wood 2008; Ross & Morrison 1996; Stewart & Dougherty 1993). Cheng and Chen (2008); Gabbin and Wood (2008); Stewart and Dougherty (1993) used quasi experimental design in teaching different groups in accounting classes. In addition, Johnson and Johnson (2005) stated that 18.8% of researchers in education randomly assigned groups to conditions and their studies have high internal validity.

An advantage of experimental research is that it can clarify cause-effect relations (Schunk 1996). Quiamzade and Mugny (2009) stated that scientists should debate using experimental data as a tool to distinguish between theories and determining which are erroneous and which are correct. Similarly, the experimental design of the study determines which teaching method is better to empower Libyan accounting students and develop their professional accounting competencies.

3.3.1.1 Participants

The target participants for this study were students who were enrolled in the first year in Accounting Principles I (Acc I) at Libyan business degree institution. For students enrolled in Accounting Principles I courses, self-selection bias was not a problem because students do not enrol themselves—faculty members enrol them for classes and group them according to their gender and grade point average. Secondly, the same instructor (researcher) teaches all students. Finally, students were not aware that different teaching methods would be applied. Groups were randomly chosen for the control group and experimental group (Cheng & Chen 2008; Gabbin & Wood 2008; Ross & Morrison 1996; Stewart & Dougherty 1993). The control

group was taught by the traditional teaching method (TM) and the experimental groups were taught by the cooperative learning method (CL).

The size of the population for students was 288 (see chapter Four). The sample consisted of 145 students taught using the traditional teaching method (*control group*) and 143 students taught using the cooperative learning method (*experimental group*) at Libyan business degree institution. The participants of the study were both genders students (195 male and 93 female), aged between 18-22 years. Most students were graduates of public secondary commercial schools in Libya who had studied accounting as a subject. As a result, it is expected those students should have some knowledge of accounting before coming to university.

Given the large number of students, it was hard to control students in classrooms with this number. The groups were divided as follows: Group 1 with 69 students and group 4 with 76 students made up the control group (*Traditional Method*). Group 2 with 70 students and group 3 with 73 students served as the experimental groups (*Cooperative learning***).**

3.3.1.2 Procedure

Both the control and experimental groups were taught in the same semster with the same content. The groups were taught in fall semester 2012. The study occurred from early January to early April, 2012, a total of fourteen weeks covering nine topics for Accounting Principles I. Classes were scheduled weekly, with a three hour session for each group. The content of the curriculm, including textbook, reading, assignments, exams and time were the same for all groups. All groups were given a general idea about the importance of development of professional accounting competencies as future accountants. The researcher prepared the lessons and taught

all groups to ensure proper implementation of the research methodological proposal, and to minimize instructor difference.

3.3.2 Data collection

Mixed Methods approach and triangulation strategy

A mixed method was used to collect the data to answer the research questions. In order to answer research questions, this study needed quantitative and qualitative data (Best & Kahn 2003). Both methods seek to triangulate and investigate in greater depth the differences in the two teaching methods and validate the research results. The various methods of data collection used gave a richness of data and allowed meaningful triangulation that strengthened the validity of the findings. Findings are considered to be more credible when they are based on analysis of data from various sources (Berg 2007; Best & Kahn 2003). This section provides the sequence of the data collection.

3.3.2.1 Quantitative data

The survey (hard copy) administered in the classrooms twice at the bagging and the end of the semester. The use of pre and post data and analysis is used to measure students' perceptions of empowerment and the development of professional accounting competencies between the control and experimental groups before and after the implementation of cooperative learning method.

3.3.2.1.1 Learner Empowerment Scale (LES)

The Learner Empowerment Scale assesses students' feeling of empowerment across dimensions of *impact* ('I have the power to make a difference'), *meaningfulness*

('the task required of me in this class are valuable to me'), and *competence* ('I feel confident that I can adequately perform my duties') (see Appendix C).

The Learner Empowerment Scale (LES) was developed by Frymier, Shulman and Houser (1996) and comprises 35 Likert scale items. Responses to all items are made on a scale of *never* (0) to *very often* (4). Permission is taken from the authors to use the scale (Appendix F). Previous researchers have established the validity and reliability of the Learner Empowerment Scale and its dimensions (Frymier, Shulman & Houser 1996; Weber & Patterson 2000). This research also tested the reliability of the Learner Empowerment Scale and compared it with previous research findings. The pilot study results also provided some insights to changes in the Learner Empowerment Scale (see chapter four).

Given the preceding argument for conceptual similarities of the professional accounting competencies and empowerment constructs (see chapter two), it suggests that the Learner Empowerment Scale is valid for the assessment of students' professional accounting competencies. Therefore, Learner Empowerment Scale is considered an appropriate survey since the main objective of this study is to systematically identify, investigate, and prioritise the major issues for successful teaching and learning processes to empower accounting students and develop their professional accounting competencies.

The results from the pilot study refined the survey and showed one dimension of the Learner Empowement Scale (meaningfulness) had the same meaning as course perceptions (see chapter 4). As a result, the researcher decide to change the course perceptions scale with students' percpetions of professional accounting competencies, as the major concern of this study is development of professional

accounting competencies based on students' perceptions and written exams. Next, students' perceptions of the professional accounting competencies scale are discussed.

3.3.2.1.2 Students' percpetions of the professional accounting competencies scale

Students' perceptions of the professional accounting competencies scale was developed by the reseacher, with some questions and factors being adapted from Mcguigan, Weil and Kern (2011). For example, factors are nearly the same in this study—interpersonal and communcation skills *(communication and teamwork)* and problem solving *(judgement skills and application skills)* The scale comprises 19 Likert scale items. Responses to all items are made on a scale of *strongly disagree* (1) to *strongly agree* (5). Three factors were assumed for professional accounting competencies: judgement skills and application skills; communication and teamwork skills; and self-management skills (Appendix C). Because of the nature of the questions for the professional accounting competencies survey, different pre and post questions were formulated. For example, this question was "I expect this class will help me improve my self-management skills". In the post survey, the question became, "This class helped me to improve my self-management skills" (see Appendix C and D).

Prior to and after the implementation of cooperative learning method in the classes pre and post surveys were conducted to evaluate students' perceptions of empowerment, and perceptions about the development of professional accounting competencies. The survey was distributed at the beginning and at the end of the semester to students enrolled in Accounting Principles I. Some researchers switch

the classes in the middle of the semester. In this study, the researcher did not switch classes in the middle of the semester to avoid any adverse impact on the research results. Groves and Marriott (1993) stated that switching teaching methods half or part way through an experiment would not appear to be an efficient way of testing the influence of change. The aim of pre and post survey was to measure whether students' perceptions of empowerment and perceptions of professional accounting competencies had changed as a result of the cooperative learning method implementation.

3.3.2.1.3 Tests of the content of the material (written exam)

Prior to and after implementation of the cooperative learning method in accounting classes pre and post written exams were conducted to evaluate the attainment of professional accounting competencies (Leedy & Ormrod 2005). The written exams included the materials from the topics covered in the course. The questions in the pre and post written exams changed in order to avoid the influence of memory. A sample of the written exams is shown in Appendices E and F. The pre and post written exam questions were revised by the researcher numerous times after consulting with supervision members and Libyan postgraduate students.

Construction of the written exam

Each written exam included three sections (see Appendices E and F). Each section is designed to test one of the four or five topics covered in the period of time for each group, and to test some of the criteria to be acquired by accounting students.

For example, the units covering Accounting Principles I in the first half of the semester are:

Section 1: Introduction to Accounting

Section 2: Accounting Transaction Analysis

Section 3: Record Keeping and the Accounting Process

Section4: Capital Transactions

The criteria tested are:

1. Technical accounting competencies (*accounting knowledge*)
2. Problem solving and critical thinking (*part of Judgement, and Application skills*)
3. Writing skills *(part of Communication skills*)

Pre and post written exams were completed twice during the semester. For all students, pre written exam 1 was conducted at the beginning of the semester. In the middle of the semester, post written exam 1 (to measure competency in the work covered in the first part of the semester) and pre written exam 2 (to assess competency in the work to be covered in the last part of the semester) was conducted. Finally, post written exam 2 was conducted at the end of the semester. The same questions were used in pre and post written exam I, however, different questions were used in pre and post written exam 2. The written exams determined the difference in students' professional accounting competencies based on the written exam in both control and experimental groups. The reason for conducting the pre and post written exams twice is for two reasons. Firstly, most students do better in the final exam than the middle exam; the other reason is that students at Libyan business degree institution have to attend two exams (middle and final exam).

3.3.2.1.4 Demographics:

Demographics collected included gender, age, grade point average, and major. The demographics were collected to provide background information about the participants in this study to confirm there is no statistically significant difference in the discrete variable (gender, age, grade point average) between groups, and to correlate the responses on several surveys with the responses on demographics. All demographic information corresponds with students' record.

The survey and pre and post written exams were first written in English and then translated and distributed in Arabic. Arabic translations were revised based on feedback from colleagues. The researcher translated them into Arabic first and then gave them to a professional translation agency to translate into Arabic as well. Comparison between the researcher's translation and the expert's translation was made to ensure that there was no misinterpretation in the translation of the questionnaire and written exams. Another stage using three PhD students was incorporated to ensure that the translation was accurate and the items conveyed the same information to the participants in the Arabic version. Three PhD students who are native Arabic speakers but also speak English were given the survey and the written exams. Comments were discussed with them and minor changes were incorporated in the final copy of the Arabic questionnaire and written exams. Finally, a pilot study was conducted in a Libyan university. No students had any trouble in understanding the questions in written exams, however, some of the skills terminologies such as critical thinking and teamwork were not clear for some students since they were not familiar with all these terminologies. The researcher coped with that issue by explaining to students the meaning of these terminologies.

3.3.2.2 Qualitative data

Understanding the personal experiences of students requires the use of qualitative data (reflections) and analyses. Qualitative data emphasises the processes that underlie and give meaning to significant events (Denzin & Lincoln 1994). If the difference of the means are not significant, results from the qualitative data may be able to explain the statistical results (Best & Kahn 2003). Using qualitative methods will establish context and examine the underlying processes that shape and partly define causal relationships by interpreting the behaviour of humans in terms of their subjective understanding (Bogdan & Biklen 2007).

Reflections

As part of the qualitative data collection for this study the instructor (researcher) kept a reflective journal to document both the instructor's experiences, the effectiveness of lessons and also record comments offered by the students. A reflective journal is what the researcher hears, sees, experiences and thinks about the phenomena under investigation (Bogdan & Biklen 2007). Using a reflective journal helped the researcher gain a better understanding of the deeper structures and meanings behind the teaching and learning experience and relates these to the theory. The journal helped to illustrates and explain the success or failure of the teaching methods from the instructor's perspective. The reflections on the students' experiences helped to document their reactions to the different teaching methods used.

Prior to and after the implementation of the experimental treatment, students' comments were used to understand students' perceptions of empowerment, and their experience while learning professional accounting competencies using different

teaching methods. Understanding the students' perspective of how and when they feel empowered allows for a greater understanding of the best way to help them develop their professional accounting competencies using different methods of instruction.

Opportunities for students to share their experiences were facilitated using meetings before regular classes and students participated on a voluntary basis. Discussion was stimulated by using open-ended questions, questions, which are commonly used to gain unanticipated information about the research problem (Bernard 2000; Best & Kahn 2003; Bogdan & Biklen 2007). Conducting the meetings in the classroom helped students feel more comfortable and gave freedom to both the students and researcher to ask and answer questions in a friendly way, rather than a formal interview setting. The researcher recorded key words and points during the sessions. The researcher did not audio record these sessions as it was deemed culturally inappropriate for this group of students, and key theme note taking made the group feel more comfortable (Keats 1999; Saunders, Lewis & Thornhill 2009).

The first of these informal meetings showed that the students were somewhat nervous as they would not normally have the opportunity to openly discuss their feelings, opinions or experiences with their instructor. These meetings helped the researcher, as the instructor, to create a good rapport with the respondents. Subsequently most students felt more relaxed and frequently came to the researcher for open discussion about the classes and to share their thoughts. In turn, this helped the researcher to gather data and to elicit proper and direct answers in a way that the respondents felt confident with and they spoke frankly and provided information freely and without anxiety.

In relation to confidentiality, the researcher promised to ensure anonymity and confidentially by not recording names in association with any of the comments. As is considered correct protocol, the information was used solely for the research project and comments reported in the findings are not identifiable (Kvale & Brinkmann 2009). Consent forms were given to students at the beginning of the study in order to obtain their consent to participate in this study (Appendix G).

3.3.3 Course Design

The research was conducted in three phases over a period of more than six months, as follows:

A phase 1 pilot study

The pilot study was conducted one semester prior to the implementation of cooperative learning method (see section 3.2 in this chapter.)

Phase 2 was in the beginning of the semester (prior to the implementation of the lessons)

The second phase of the study involved working with students who agreed to participate in the study. Initially, some students declined the invitation to be involved in the study, but after the researcher explained the objective of the study all students in the course agreed to participate in the study. Prior to the implementation of the lessons, the researcher collected all pre data (pre survey, written exams, and reflections).

The researcher started lessons for all groups (control and experimental groups) and explained in detail with specific guidelines on how to use the principles of the cooperative learning method for cooperative learning classes. Based on a checklist of the instructor's role and lesson templates designed by Johnson, Johnson, and

Holubec (1993) and Johnson and Johnson (2007), detailed lesson plans were designed and developed for each group. The instructor introduced the cooperative learning method to students before the lessons commenced. More details about the lessons and the sequence of how the methods were implemented are illustrated in sections 3.3.3.1 and 3.3.3.2. During the classes, reflections on these classes and comments from students were written up. Students came to the researcher themselves and expressed their ideas about what happened in the classes.

Phase 3 was at the end of the semester (after the implementations of the lessons)

After the implementations of the lessons, the researcher collected the rest of the data (post data (post survey, written exams, and reflections).

A summary of the course design and data collection events are provided in Table 3.1.

Table 3.1: Course Design and Data Collection

Week	Control Group	Experimental Group
1	Pre survey Pre- reflections Pre written exam 1	Pre survey Pre- reflections Pre written exam 1
2-6	Lessons and reflections	Lessons and reflections
7	Post written exam 1 Pre written exam 2	Post written exam 1 Pre written exam 2
8-13	Lessons and reflections	Lessons and reflections
14	Post written exam 2 Post survey Post reflections	Post written exam 2 Post- Post survey Post reflections

Implementation of the cooperative learning method and traditional teaching method is presented in the next section:

3.3.3.1 Implementation of cooperative leaning method

Following are the steps the researcher considered in the implementation of the cooperative learning method. The lesson plan for the cooperative learning method is shown in Appendix A).

1. Students' desks were arranged in a horseshoe shape and students faced each other providing adequate space for each group to work without being interrupted.
2. The instructor explained the task and the lesson objective for students.
3. Students started work in their groups.
4. The instructor monitored students progress and provided feedback. The aim is to allow students to receive feedback from their classmates and the instructor to develop ideas and solve problems.
5. Social skills fostered, basic skills of listening, accepting and trust formation are taught through the peer interview sessions during the course and through brainstorming in tasks. More complex skills pertaining to leadership, decision-making and conflict resolution are dealt with within the tasks.
6. The instructor dealt with students as a heterogeneous group assuming that they have different capacities to understand the tasks required. Groups consisted of all-female groups or all-male groups to ensure groups are comfortable and thus allow the discussion to be more effective. Groups who finished first helped other groups who struggled with the problem
7. Instructors provided opportunities for group members to reflect on each member's contribution. Each student is required to write about every member's contribution (including their own) at the end of the assignment.

The lesson plans included lesson objectives, group size, and a list of teaching materials, group roles, classroom activities, instructions for arranging the classroom, the explanations of classroom tasks, procedures to structure the basic elements of cooperative learning method, and criteria for success. Detailed lesson plans were designed and developed according to Johnson, Johnson, and Holubec (1993) and Johnson and Johnson (2007).

3.3.3.2 Implementation of traditional method

Following are the steps considered by the researcher in the implementation of the traditional method.

A sample of the lesson plan for the traditional method is shown in Appendix B.

1. Student desks were arranged in rows facing the instructor with a white board and presentation material and adequate space for each student to work without being interrupted.
2. The instructor explained the main concepts of the lessons to the students, and students received the information passively.
3. Students took notes about the topic from the instructor's explanations. No opportunities were given to open discussion with students.
4. The instructor was only the person who had the right to speak in the classroom. The teaching of the materials is the instructor's job.
5. Only the task was emphasized; social skills and group interaction were ignored. Professional accounting competencies were illustrated through passive repetition and passing the exam.
6. The instructor dealt with students as a homogenous group assuming that they all have the same capacity to understand the tasks required.

7. The students were encouraged to focus on themselves and compete for marks. No opportunity was given in class to take note of the opinions of other classmates.

The main difference between cooperative learning and traditional teaching methods as identified by Johnson and Johnson (1994, p. 14) and adapted by this study are listed in Table 3.2.

Table 3.2: Differences between Cooperative Learning and Traditional Teaching Methods

Cooperative Learning method	**Traditional teaching method**
Positive interdependence	No interdependence
Individual accountability	No individual accountability
Heterogeneous membership	Homogenous membership
Shared leadership	One appointed leader
Responsible for each other	Responsible only for oneself
Task and maintenance emphasised	Only task emphasized
Social skills directly taught	Social skills assumed and ignored
Instructor observes and intervenes	Instructor ignores groups
Group processing occurs	No group processing
Arranging room as horseshoe and Pods	Arranging room as rows
Instructor monitors and intervenes to teach collaborative skills	Instructor is the major source of assistant, feedback and answering questions, clarification, correctness of answer

Source: (Johnson & Johnson 1994, p. 14)

3.3.3.3 Issues

Challenges associated with conducting the study are: students rejected the method and the instructor (researcher); or students being shy and unable to easily express their opinion. In this case, the instructor broke down the barriers between herself and the students by introducing a non-accounting topic of interest to the students. The topic discussed was about the Libyan uprising as this was the most interesting topic for open discussion between students and researcher. Additional challenges included lack of response from students, students having poor attendance records, students coming to class ill-prepared, or students failing to give feedback about their peers. These issues were addressed by motivating students to attend and prepare for classes; facilitating and encouraging discussion; and displaying initiative for gaining better marks (Curran 2002). For example, this study emphasised the strategic value of the method to students in which by participating actively they may gain better marks.

3.3.3.4 Grades

Grades for both groups included participation, activities, mid-term exam, and final exam were same. The final grades for the course include 10 percent for participation (to encourage student involvement within classes), 10 percent for group activities (to encourage interaction), 30 percent for the mid-term exam, and 50 percent for the final exam (Yamarik 2007). In order to avoid any unfair consequences in applying the experiment, exams were unidentifiable marked by faculties staff members. And grades were organised as follows: for all students in all groups, the highest grade was (A), less than the highest grade by ten marks was (B), less than B grade by ten marks (C), and less than C by ten markes (D). Less than D is a fail.

3.3.4 Data Analysis and Interpretation

3.3.4.1 Analysis and interpretation quantitative data

In relation to the research question, the quantitative data obtained from survey and pre and post written exams were analysed using Statistical Package for Social Scientists (SPSS) version 19.0. Three major activities that occurred during this phase of analyses were: (1) the implementation of descriptive statistical analysis; (2) reliability and factor statistical analysis; and (3) hypotheses testing using t-tests, and correlations.

Descriptive statistics, reliability and factor analysis was used to clean the data and ensure all the data analysed are valid. Internal consistency (Cronbach's alpha) was calculated in order to assess the scales quality (reliability) of all constructs and measures (Hair et al. 2006). Each variable was tested for reliability and validity using Cronbach's alpha and factor analysis. t-tests, and correlations were used to test the hypotheses.

Factor analysis is a statistical technique widely used in social sciences research in order to reduce the number of items in an effort to enhance and detect hidden structures and enhance interpretability in the data (Hair et al. 2006). Tabachnick and Fidell (2007) consider the appropriate sample size for conducting factor analysis is 300 cases, but more than 150 is sufficient. In this study, the cases ranged between pre data 288; and post data 279. The primary purpose of factor analysis is to reduce and summarise data before the process of analysis. Factor analysis is used in this study to decrease the number of variables to a lesser number of factors to decide which clusters of items comprise unidirectional sets for analysis purposes.

Learner Empowerment Scale and the Professional Accounting Competencies Scale were used in this study. As indicated earlier, Frymier, Shulman and Houser (1996) used factor analysis when developing the Learner Empowerment Scale (LES). The criteria used for this study for Learner Empowerment Scale was the MSA =0.91 statistic measure of sampling adequacy; reliability is tested by using Cronbach's Alpha; the minimum recommended standard of Cronbach's alpha is 0.7 (Hair et al. 2006). The criteria are summarised in Table 3.3.

Table 3.3: the Criteria used for Factor Analysis for Learner Empowerment Scale

Cronbach's Alpha	> .70
MSA	0.91
3 Factor solution	(Impact, meaningfulness, and competence)
Factor accounting for variance	At least 5%
Loading	above .50
Eigenvalue	Greater than 1

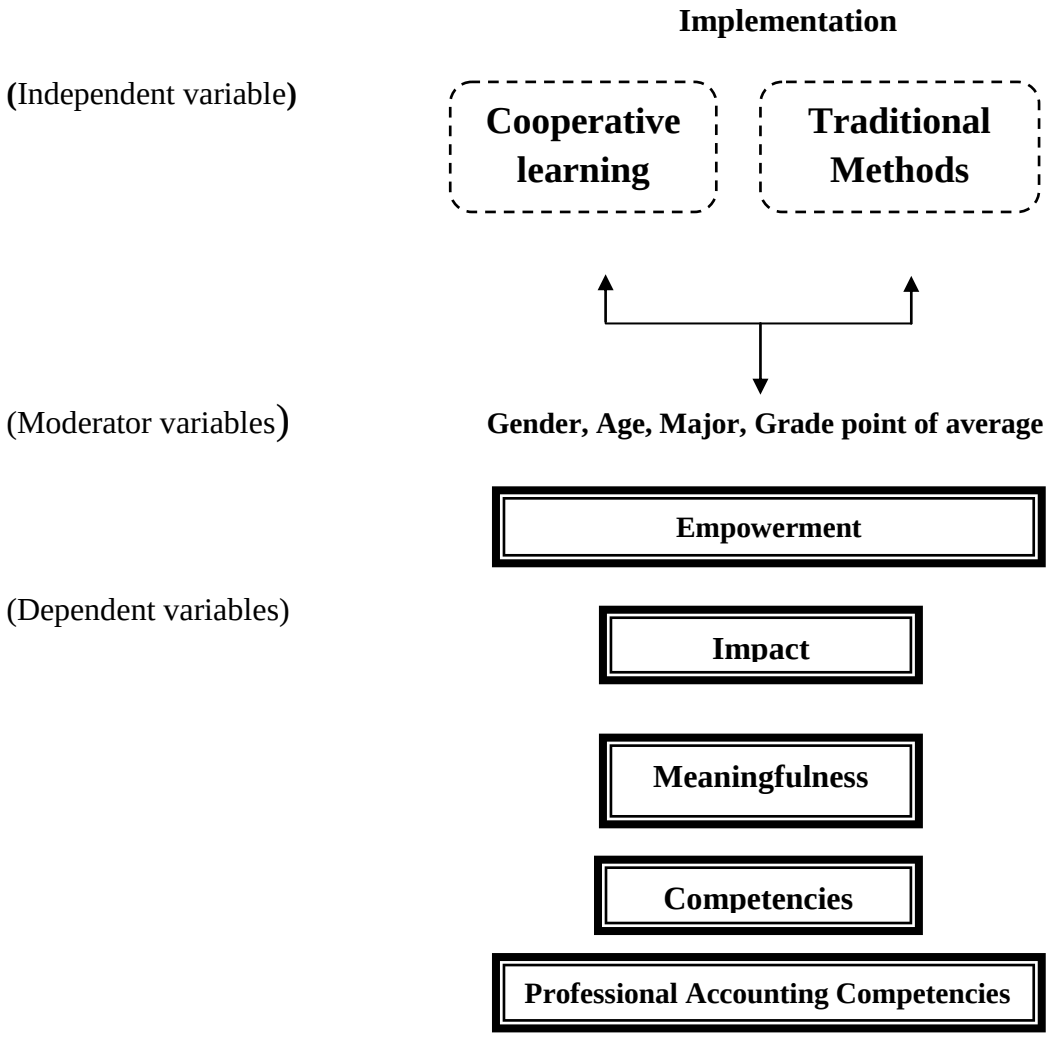
Sources: (Frymier, Shulman & Houser 1996, p. 191)

As indicated previously, the main purpose of this study is to identify the differences between cooperative learning and traditional teaching methods on students' perceptions of empowerment and development of professional accounting competencies. Testing the hypothesises in order to determine the differences between two populations is not problematic because t-test and means are often appropriate techniques used by researchers when they are comparing two populations (Pavkov & Pierce 2002).

T-tests are used to test hypotheses and evaluate the difference between the independent variables (cooperative learning and traditional teaching methods' groups), and dependent variables (students' perceptions of empowerment, its dimensions and development of professional accounting competencies) (see Figure

3.1) to determine if significant differences exist between the two groups according to the teaching method. Testing the difference of the means of the control and experimental groups on students' perceptions of empowerment and professional accounting competencies provided evidence of the success of cooperative learning method over the traditional teaching method for each of the dependent variables (Best & Kahn 2003).

Figure 3.1: Independent variable and dependent variables



Source: developed by the researcher

Accordingly, this study employs both an independent samples t-test and a dependent samples t-test or paired samples t-test. Both tests are used to find significant

differences between groups, but the independent samples t-test assumes the groups are not related to each other, while the dependent samples t-test or paired samples t-test assumes the groups are related to each other. The independent samples t-test would be used to find differences between groups in the same period (the difference between control and experimental groups in pre and post responses), while a dependent samples t-test or paired samples t-test would be used to find differences within groups before and after the treatment—same group in different times—(pre and post data in the control group and pre and post data in the experimental group). One of the uses of t-test is to test whether there is a significant difference between two groups' mean (pre and post mean) for the same group.

In the same context, Opdecam and Everaert (2012) used t-tests to test their three hypotheses and suggest that differences exist between cooperative learning groups and the traditional teaching method in terms of students' satisfaction and course experiences at a business degree institution in Belgium. Zain et al. (2009) also used t-test in a similar way to compare cooperative learning and traditional teaching methods' groups of students in terms of their behaviour, attitude towards subject, communication skills and social skills at a business degree institution in Malaysia. Caldwell, Weishar and Glezen (1996) and Clinton and Kohlmeyer (2005) used means to evaluate if differences exist between the cooperative learning method's group and the traditional method's group in terms of students' perceptions of accounting. In this study, the t-test is used to test the hypothesis in order to establish if there are any differences between the two teaching methods in terms of their effect on students' perceptions of empowerment and development of professional accounting competencies.

Correlation is a measure of association between two variables. The variables are not designated as dependent or independent. In this context, Frymier, Shulman and Houser (1996) used Pearson's correlations to correlate Learner Empowerment Scale with trait motivation, relevance and affective and behavioural learning. Also, Weber and Patterson (2000) used Pearson's correlation to explore if Learner Empowerment Scale is valid and reliable for the assessment of students' interest. Weber, Martin and Cayanus (2005) used Pearson's correlations to explore the relationship between the three dimensions of Learner Empowerment Scale and students' motives for communicating with their instructors. Opdecam and Everaert (2012) used Pearson's correlations to identify relationships between ability measures (ability in general, ability in accounting, exam, good teaching, appropriate workload, generic skills and time spent). In this study, Pearson's correlations are used to test hypotheses and evaluate the relationship between students' perceptions of empowerment, development of professional accounting competencies and teaching methods.

3.3.4.2 Analysis and Interpretation Qualitative Data

Qualitative data gathered from reflections were recorded in notes and typed into a Word document, analysed by browsing, highlighting, hand coding, developing categories and reducing and summarizing a meaningful analysis to be tabulated (Creswell 2005). Hand coding is considered adequate and appropriate when the research question is specific enough, and the analysis is deductive. Each idea from participants was gathered in one section and again categorised and summarized.

3.3.5 Conclusion

As has been stated, a mixed research method was chosen to carry out the research for this study. In particular, the approaches were selected for that purpose and their

relevance to this study was described and discussed in chapter 3. In addition, a detailed research design for collecting data, including the issues and difficulties in data collection was provided and discussed. This chapter also provided the stages of data analysis with the chain of evidence in order to contribute to the quality of the study. This chapter outlined the pilot study which was conducted before starting the experiment. The findings of this study, followed by a discussion, will be presented in the following Chapters Four, Five and Six respectively.

CHAPTER FOUR

QUANTITATIVE ANALYSIS

CHAPTER FOUR: QUANTITATIVE ANALYSIS

4.1 Introduction

Chapter 3 described the research design and methodology for this study. This chapter presents the quantitative analysis of data (from pilot study and main study) that was gathered using the research instrument in order to address the research issue. The hypotheses of the study were tested in relation to the research problem to identify the effects of the cooperative learning method on students' perceptions of empowerment and its dimensions and development of professional accounting competencies. The study further explores how each empowerment dimension correlate with professional accounting competencies.

4.2 Results for Pilot Study

4.2.1 Response rate, cleaning and screening data

Four hundred and fifty surveys were distributed to both Libyan (270) and Australian (180) students enrolled in first year accounting courses at business degree institutions. A total of 409 surveys (90%) were received from Libyan and Australian respondents and were determined suitable for inclusion in the data set. Responses from Libyan students amounted to 247 surveys (91%). Responses from Australian students amounted to 162 completed surveys (90% return) (Table 4.1).

Table: 4.1: Surveys distributed and received

Surveys	Libyan students	Percentage	Australian students	Percentage	Total	Percentage
Distributed	270	100 %	180	100 %	450	100 %
Received	247	91 %	162	90 %	409	90 %

Data was checked by running frequencies of each variable in terms of minimum and maximum values in order to ensure accurate imputation. Screening and cleaning of the data is imperative so that the data set is clean and prepared for analysis, ensuring its appropriateness for testing of the hypotheses (Hair et al. 2006). The essential preliminary step for data analysis is data examination that includes detecting imputation errors and missing data, then identifying outliers which affect generalization of the results (Hair et al. 2006). Next, data was checked for missing data.

4.2.2 Missing data

Missing data is likely to be out of the researcher's control. However, it should be addressed because of its effects on data analysis and generalization (Hair et al. 2006). Some missing data was then accepted due to the students' initial misunderstanding of some terminology. Missing values were replaced to avoid the problem of missing cases. Recording missing values allows the researcher to include all cases in analysis of the data (Coakes 2009). As long as the researcher had valid data for more than 300 cases, the missing data is acceptable.

4.2.3 Normality

Data was checked for normality. Normality of data is an assumption that is required for many statistical tests (Park 2008). Checking for normality is important, especially in terms of small samples because of the significant role played by sample size in terms of statistical power (Hair et al. 2006; Tabachnick & Fidell 2007). Transformations of data are not universally recommended with a large sample size because they make interpretations of variables difficult. If a sample size is larger than 30 it is assumed that the population sample mean is approximately normally

distributed according to the Central Limit Theorem 'regardless of the shape of the original population' (Hair et al. 2006; Tabachnick & Fidell 2007). Despite the Central Limit Theory's assumption, data was tested for normality and outliers. The data was accepted for further analysis. This study's sample size is regarded as 'large' with 409 responses (Hair et al. 2006).

4.2.4 Respondents' profiles

The demographic characteristics of respondents include respondents' gender, age, major, and grade point average. The unit of analysis was a student enrolled in a first year business degree at institutions in Libya and Australia. Both of the institutions are degree granting institutions with professional accreditation. The sample consisted of 409 respondents, 247 (60.3%) Libyan students and 162 (39.6%) Australian students.

The survey was completed by students attending classes at the time the survey was distributed. It did not deliberately target gender or ages. The sample included 218 male participants (53.6%) and 186 females (45.8%). In the Libyan students' sample, males and females accounted for 65.6% and 43.4% respectively, while in the Australian students' sample, males and females accounted for 34.6% and 62.3% respectively (Table 4.2). The majority of participants were aged between 18-20 years (63.5%). Libyan students made up 68% of participants between 18-20 years of age; while for Australian students, 56.8% were between 18-20 years of age. The predominant age for the entire sample was 18-20 years (Table 4.2). The Libyan students' ages are, on average, the same as the sampled Australian students.

Table 4.2: Frequencies of respondents' gender and age

		Libyan and Australian students		Libyan students		Australian students	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Gender	Male	218	53.6	162	65.6	56	34.6
	Female	186	45.8	85	43.4	101	62.3
	Total (1)	404	98.7	247	100%	157	96.9
	Missing (2)	5	3.1	0	0	5	3.1
	Total 1+2	**409**	**100%**	**247**	**100%**	**162**	**100%**
Age	18-20	260	63.5	168	68	92	56.8
	21-22	66	16.2	43	17.4	23	14.2
	23+	67	16.3	35	14.2	32	19.8
	Total (1)	393	96	246	99.6	147	90.7
	Missing (2)	16	3.9	1	.4	15	9.3
	Total 1+2	**409**	**100%**	**247**	**100%**	**162**	**100%**

In regards to the majority of participants, 37.4% of respondents are intending to be accounting majors; from Australian students, 30.2% considered themselves as accounting majors, while 42% of Libyan students intend to be accountants (Table 4.3). In terms of grade point average, most Libyan participants are between 76-85. Approximately 24.1% of Australian' participants are graded between 76-85 (see Table 4.3).

Table 4.3: Frequencies of respondents' major and grade point average

		Libyan and Australian students		Libyan students		Australian students	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Major	**Accounting**	153	37.4	104	42.1	49	30.2
	Others	219	53.5	134	54.3	85	52.5
	Total (1)	372	90.9	238	96.4	134	82.7
	Missing(2)	37	9.04	9	3.6	28	17.3
	Total (1+2)	**409**	**100%**	**247**	**100%**	**162**	**100%**
Grade point of average	**50-65**	17	3.4	3	1.2	14	8.6
	66-75	28	6.8	13	5.3	15	9.3
	76-85	198	48.7	159	64.4	39	24.1
	86+	79	19.3	63	25.5	16	9.9
	Total (1)	322	7.8	238	96.4	84	51.9
	Missing (2)	87	21.2	9	3.6	78	48.1
	Total (1+2)	**409**	**100%**	**247**	**100%**	**162**	**100%**

4.2.5 Reliability and Factor analysis

4.2.5.1 Reliability

Before analysing the data, reliability tests were conducted on the scales. Reliability refers to the 'consistency and stability of a score from a measurement scale'(Davis, 2005, p. 188). All Cronbach alphas were above the minimum recommended standard of 0.7 (Hair et al. 2006).

In this study the reliability for Learner Empowerment Scale was estimated by calculating Cronbach Alpha. Items 9, 11, 14, 20, 25, 26, 28, 30, 34 were all reverse-coded before running the reliability tests. For the purposes of the current study, the Learner Empowerment Scale for both groups of Libyan and Australian respondents (409 students) for the three dimensions, impact, meaningfulness and competence, achieved alphas of 0.83, 0.94, and 0.91 respectively. These measures of reliability compare favourably with those reported by Frymier, Shulman and Houser (1996) and therefore show consistency across studies (see Tables 4.4 and 4.5).

Furthermore, in the current investigation the reliability for 10 statements of students' perceptions of the accounting course achieved an alpha of 0.90. Thus, there is evidence that the instrument is reliable.

Table 4.4: the Reliability of the Learner Empowerment Scale

	Empowerment	Impact	Meaningfulness	Competence
Libyan and Australian (409) responses	0.94	0.83	0.94	0.91
Libyan's (247) responses	0.91	0.86	0.89	0.82
Australia's (162) responses	0.93	0.91	0.89	0.82

Table 4.5: the Reliability of the Course perceptions' scale

Libyan and Australian (409) responses	Libyan (247) responses	Australian (162) responses
0.90	0.81	0.75

4.2.5.2 Factor analysis

The result of the factor analysis using a Varimax rotation was a three-factor solution. All three of the learner Empowerment Scale dimensions factored out separately. The first factor accounted for 41% of the variance with 12 items loading on it (*impact*). Ten items loaded on *meaningfulness* accounted for 13% of the variance. The third factor *competence* accounted for 5% of the variance with eight items. Similarly, the researcher would expect that items that loaded on impact, meaningfulness and competence dimensions to be similar to Frymier, Shulman and Houser's (1996) study (see Table 4.6).

The item total correlation coefficients and factor loadings were found above the minimum recommended standards of 0.3 and 0.4 respectively (Pallant 2007). Items 6, 9, 11, 14 and 33 from Learner Empowerment Scale failed to load on the appropriate factors based upon Frymier, Shulman and Houser's (1996) study. The results from reliability tests and factor analysis tests show 30 items will be used for empowerment. From the results it would appear that questions numbered 6, 9, 11, 14 and 33 were may misunderstood by the students: this resulted in low loadings. In future studies the researcher will express the questions in a different way to avoid any misunderstanding.

Table 4.6 empowerment factor analysis for Libyan and Australian responses

		Impact	*Meaningfulness*	*Competence*
Impact				
1	I have the power to make a difference in how things are done in my class.	**.768**	.060	.083
2	I have a choice in the methods I can use to perform my work.	**.367**	.369	.484
3	My participation is important to the success of the class	**.436**	.434	.385
4	I have freedom to choose among options in this class.	**.530**	.411	.343
5	I can make an impact on the way things are run in my class.	**.799**	.086	.060
6	Alternative approaches to learning are encouraged in this class	**-.052**	.012	.020
7	I have the opportunity to contribute to the learning of others in this class.	**.500**	.498	.347
8	I have the opportunity to make important decisions in this class.	**.722**	.218	.068
9	I cannot influence what happens in this class.	**.295**	-.018	.507
10	I have the power to create a supportive learning environment in this class.	**.577**	.330	.356
11	My contribution to this class makes no difference.	**.274**	.266	.688
12	I can determine how tasks can be performed.	**.709**	.090	.215
13	I make a difference in the learning that goes on in this class.	**.813**	.031	.062
14	I have no freedom to choose in this class.	**.244**	.244	.628
15	I can influence the instructor.	**.612**	-.299	-.208
Meaningfulness				
16	I feel appreciated in this class	.378	**.664**	.225
17	The tasks required in my class are personally meaningful.	.442	**.560**	-.070
18	I look forward to going to my class.	.046	**.842**	.063
19	This class is exciting.	.179	**.845**	-.080
20	This class is boring.	.005	**.749**	.206
21	This class is interesting.	.076	**.869**	.130
22	The tasks required in my class are valuable to me.	-.021	**.802**	.359
23	The information in this class is useful.	-.064	**.820**	.413
24	This course will help me to achieve my future goals.	-.020	**.746**	.383
25	The tasks required in my class are a waste of my time.	-.097	**.679**	.527
26	This class is not important to me.	-.186	**.693**	.534
Competence				
27	I feel confident that I can adequately perform my duties.	.164	.719	**.360**
28	I feel intimidated by what is required of me in my class.	-.157	.197	**.496**
29	I possess the necessary skills to perform successfully in class.	.190	.666	**.309**
30	I feel unable to do the work in this class.	-.055	.516	**.664**
31	I believe that I am capable of achieving my goals in this class.	.054	.727	**.500**
32	I have faith in my ability to do well in this class.	.035	.715	**.489**
33	I have the qualifications to succeed in this class.	.091	.307	**.128**
34	I lack confidence in my ability to perform the tasks in this class.	-.072	.324	**.702**
35	I feel very competent in this course.	.195	.565	**.333**

4.2.6 Hypothesis testing

In order to answer the research question, 'What are the relationships between students' perceptions of empowerment, accounting course perceptions and classroom instruction in a first year accounting course at Libyan and Australian business degree institutions?', t-tests and correlations were conducted.

Hypothesis 1 testing using t-test

Hypothesis 1 asserted that there would be a significant difference between Libyan and Australian students in students' perceptions of empowerment, its dimensions (impact, meaningfulness and competences) and course perceptions. The total

number of responses analysed may vary from the total sample because missing data was excluded. An independent sample t-test was conducted to compare groups. Results using independent t-tests support this hypothesis (see Table 4.7).

Table 4.7: Summary of t-test for H1

Empowerment	**Levene's Test**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Equal variances assumed	.292	.589	17.421	352	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian students	157	72.27		15.899	
Libyan students	197	43.12		15.439	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Equal variances assumed	.001	.981	2.71	369	.007
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian students	155	23.20		6.283	
Libyan students	216	21.39		6.355	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Equal variances assumed	.067	.795	22.3	370	.000
Student' group	**N**	**Mean**		**Std. Deviation**	
Australian students	161	27.93		6.706	
Libyan students	211	12.27		6.701	
Competence	**Levene's Test**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**sig(2-tailed)**
Equal variances assumed	1.760	.185	19.52	377	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian students	161	18.82		4.539	
Libyan students	218	9.29		4.809	
Course perceptions	**Levene's Test**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**sig(2-tailed)**
Equal variances assumed	2.558	.111	23.2	386	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian students	159	36.43		5.222	
Libyan students	229	23.00		5.837	

The Levene's test for empowerment, its dimensions (impact, meaningfulness and competences) and course perceptions were not significant (p=0.589, 0.981, 0.792, 0.185, and 0.111). Therefore, the groups' variances can be regarded as equal. The study found that students who studied at an Australian business degree institution

had significantly higher perceptions of empowerment than students who studied at a Libyan business degree institution—p=0.05. The mean and Standard Deviation of the Learner Empowerment Scale and its dimensions are displayed in Table 4.7. Students studying at an Australian business degree institution exhibited much higher means and standard deviations compared to students at Libyan business degree institution. The institutional setting did influence students' perceptions of empowerment and its dimensions (impact, meaningfulness and competence). The Learner Empowerment Scale and its dimensions contain significant differences at 0.05 level.

Hypothesis 1 is supported. Australian students perceive that they are more empowered than Libyan students. This indicates that cultural background and classroom setting of students (whether taught traditionally or collaboratively) influence students' perceptions of empowerment.

Hypothesis 2 using correlations

Hypothesis 2 asserted that there would be a significant and positive relationship between Australian and Libyan students on their perceptions of empowerment, its dimensions and course perceptions. Results using Pearson's Correlation analysis support this hypothesis (see Table 4.8). The course perceptions achieved significant and positive correlations with the Learner Empowerment Scale scores (r=.780, p<.01), impact (r=.274, p<.01), meaningfulness (r=.855, p<.01) and competence (r=.731, p<.01) (see Table 4.8). The three dimensions of empowerment were positively correlated with course perceptions. Meaningfulness had the highest correlation with course perceptions. Therefore, meaningfulness and course

perception measure similar value systems. Consequently, meaningfulness can be used to measure course perceptions rather than assessing both as different variables.

Table 4.8: The correlations between students' perceptions of empowerment, perceptions of the course, and students' academic performance for both groups

	Empowerment	Impact	Meaningfulness	Competence	Course perceptions
Empowerment	1	.685**	.899**	.876**	.780**
Impact	.685**	1	.357**	.414**	.274**
meaning	.899**	.357**	1	.778**	.855**
competence	.876**	.414**	.778**	1	.731**
Course's perceptions	.780**	.274**	.855**	.731**	1

*** Correlation is significant at the 0.01 level (1-tailed).*

As the results of hypothesis 1 show, there are differences between groups of Libyan and Australian students regarding empowerment. Hypothesis 2 was tested again to gauge the relationships between empowerment and course perceptions for each group separately. The result indicated that there are relationships between empowerment and course perceptions for each group.

Hypothesis 2 is supported. There are relationships between Learner Empowerment Scale, its dimensions and the course perceptions. These results indicate that learner empowerment influences accounting course perceptions. When students feel empowered they have positive perceptions of the course (see Tables 4.9 and 4.10).

Table 4.9: The correlations between students' perceptions of empowerment, and perceptions of the course for Australian responses

	Empowerment	Impact	Meaningfulness	Competence	Course perceptions
Empowerment	1	.816**	.825**	.751**	.709**
Impact	.816**	1	.435**	.449**	.373**
meaning	.825**	.435**	1	.497**	.808**
competence	.751**	.449**	.497**	1	.495**
Course's perceptions	.709**	.373**	.808**	.495**	1

*** Correlation is significant at the 0.01 level (1-tailed).*

Table 4.10: The correlations between students' perceptions of empowerment, and perceptions of the course for Libyan responses

	Empowerment	Impact	Meaningfulness	Competence	Course perceptions
Empowerment	1	.824**	.824**	.775**	.399**
Impact	.824**	1	.427**	.514**	.220**
meaning	.824**	.427**	1	.552**	.524**
competence	.775**	.514**	.552**	1	.351**
Course's perceptions	.399**	.220**	.524**	.351**	1

***. Correlation is significant at the 0.01 level (1-tailed).*

Hypothesis 3 testing using t-test

Hypothesis 3 asserted that Australian students who worked in collaborative classes perceive they have an impact in the classroom and are more empowered than Australian students who worked in a traditional classroom at business degree institution. The study found that students who worked in groups collaboratively in the Australian classroom had significantly higher perceptions of impact than Australian students who worked in traditional classes. The mean and standard deviation of the impact which refers to 'students' perceptions of whether or not they can make a difference in the classroom, such as influencing the instructor and other students or providing information in class discussions was (22.08±8.083), which shows higher mean values—(24.61 ± 6.751) (df =154), p= 0.036—compared to students involved in traditional classes in Australian classrooms. Therefore, the type of classroom instruction influences students' perceptions of empowerment and the impact of learning as an empowerment dimension (see Table 4.11).

Table 4.11: Summary of t-test for H3

Empowerment	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.000	.994	-1.733	154	.085
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian Traditional classes	81	70.04		15.557	
Australian Collaborative classes	75	74.41		15.979	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.116	.292	-2.116	154	.036
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian Traditional classes	80	22.08		8.083	
Australian Collaborative classes	76	24.61		6.751	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.782	.378	-1.061	158	.290
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian Traditional classes	83	29.69		6.954	
Australian Collaborative classes	77	30.92		7.771	
Competence	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.001	.976	-.883	158	.406
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian Traditional classes	83	18.49		4.607	
Australian Collaborative classes	77	19.09		4.446	
Course perceptions	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.426	.234	-1.426	156	.156
Students' group	**N**	**Mean**		**Std. Deviation**	
Australian Traditional classes	82	35.84		5.341	
Australian Collaborative classes	76	37.03		5.081	

Only the impact as empowerment dimension contains significant differences at 0.05 levels. Nevertheless, there is little significant difference in Learner Empowerment Scale at p=0.10. Other empowerment dimensions (meaningfulness and competence) did not show any difference between traditional and collaborative classes. This result is attributed to the fact that the Australian students are exposed to collaborative learning during their primary and secondary school years (Australian Curriculum Assessment and Reporting Authority (acara) n.d), therefore, their level of empowerment is not affected even if they study in a traditional environment at a business degree institution.

As a result, this helped the researcher decide to implement the study research herself to ensure proper implementation of the research methodological proposal, and to minimize instructor difference for a diffent culture (Libya).

4.2.7 Conclusion

This exploratory study compares students' perceptions of empowerment when studying accounting courses at Libyan and Australian business degree institutions. The findings of this research are very interesting for a number of reasons. Firstly, the educational environment and students' cultural origins impact upon the degree to which they feel empowered in the classroom. Secondly, there is a relationship between students' level of empowerment and their perceptions of a course. That means the more empowered students feel, the better perceptions of the course they have. Finally, within the same cultural group, students' levels of empowerment were impacted by the method which they were being taught. Therefore, this research indicates that it is not only the content of a course but the method by which it is

delivered that may impact on the students' level of empowerment and, subsequently, their satisfaction with the learning experience.

Future research (main study) will involve a larger data collection using an experimental design to allow comparisons between traditional and cooperative learning method in accounting course at Libyan business degree institution.

4.3 Results for the Main Study

4.3.1 Response rate

Pre and post-surveys were distributed to all students who had enrolled in first year in Accounting Principles I course at Libyan business degree institution. Two hundred and eighty-eight pre-surveys were distributed to students in both groups. A total of 288 surveys (100%) were received from pre-survey respondents and were determined suitable for inclusion in the data set. Post-survey responses amounted to 279 surveys (100%). The reason for the decrease in the number of respondents between pre and post surveys responses was due to nine students dropping the course (Table 4.12).

Table 4.12: The surveys distributed and received

Surveys	**Total**		**Traditional Method (Control group)**		**Cooperative learning (Experimental group)**	
	Freq	**%**	Freq	**%**	Freq	**%**
Pre survey	288	100	145	100	143	100
Post survey	279	100	140	100	139	100

4.2.2 Cleaning, Normality, and Missing data

Similar processes for cleaning, normality, and missing data were applied as in the pilot data set (and outlined in Section 4.2). A total of 16 cases were excluded from pre Learning Empowerment Scale as they did not answer most of the questions in

the survey. In post Learning Empowerment Scale data and pre and post written exam 2, another 8 cases were excluded. They were excluded because they withdrew from the course and were not part of the post data. In all 24 respondents were excluded. This study's sample size is regarded as 'large' with 279 responses.

4.3.3 Respondents' profiles

The demographic characteristics of respondents include respondents' gender, age, major, grade point average, new or repeating students, and previous certificates. The unit of analysis was a student enrolled in first year in Accounting Principles I course at a business degree institution in Libya. The sample consisted of 288 respondents, 145 (50.3%) from the control group, and 143 (49.6%) from the experimental group.

The survey was completed by all students enrolled in the Accounting Principle I classes—males and female aged 18-20. The sample included 195 male participants (67.7%) and 93 females (32.3%). Males and females accounted respectively (67.5 and 32.4) in the control group and (67.8 and 32.1) in the experimental group (Table 4.13). The majority of participants' ages were in the range 18-20 years (87.5%). This is attributed to the policy of the Libyan business degree institutions wherein they do not accept students after two years from the date of their high school certificate.

Table 4.13: Frequencies of responses' gender and age

	All groups		Control Group Traditional Method		Experimental Group Cooperative Learning	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**
Gender						
Male	195	67.7	98	67.5	97	67.8
Female	93	32.3	47	32.4	46	32.1
Total	**288**	**100**	**145**	**100**	**143**	**100**
Age						
18-20	252	87.5	127	87.6	121	84.6
21-22	29	10.1	15	10.3	22	15.4
23+	7	2.4	3	2.1	0	0
Total	**288**	**100**	**145**	**100**	**143**	**100**

In regard to the particular major being studied, 49.7% of respondents intend to undertake an accounting major. From the control group and the experimental group 46.9 and 52.4 of students respectively were considered to be an accounting major (Table 4.14). From the staff members' comments and the researcher's experience as student and instructor in Libyan business degree institutions, this number will reduce later when students commence their major. Most students come to the business degree institution with the intention of majoring in accounting and will then change their mind and major in either administration or economics. In terms of grade point average, most participants have a grade point average between 66% and 85%. This is assumed to be because Libyan business degree institutions accept students who have grades more than 70%. Occasionally (but not often) they accept students with less than 70% (Table 4.14).

Table 4.14: Frequencies of respondents' major and grade point average

	All groups		Control Group (Traditional Method)		Experimental Group (Cooperative Learning)	
Major	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Administration	82	28.5	49	33.8	33	23.1
Accounting	143	49.7	68	46.9	75	52.4
Economy	63	21.9	28	19.3	35	24.5
Total	288	100	145	100	143	100
Grade point of average						
50-65	39	13.5	17	11.7	22	15.4
66-75	113	39.2	58	40	55	38.5
76-85	105	36.5	53	36.6	52	36.4
86+	31	10.8	17	11.7	14	9.8
Total	288	100	145	100	143	100

With regard to status, the majority of participants (88.9% of respondents) were new students and 11.1% were repeat students. From the control group, 87.6% of students were considered as new students, whilst 90.2% in the experimental group were new students (Table 4.15). In terms of previous certificate, most participants (53.8%) have graduated from business secondary schools, and then there are some science and engineering, social science and language students. This is because Libyan business degree institutions accept students from different secondary schools (Table 4.15).

Table 4.15: Frequencies of responses for major and previous certificate

Status	All groups		Control Group Traditional Method		Experimental Group Cooperative Learning	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**
New student	256	88.9	127	87.6	129	90.2
Repeated students	32	11.1	18	12.7	14	9.8
Total	288	100	145	100	143	100
Previous certificate						
Business	155	53.8	84	57.9	71	49.7
Science & engineering	83	28.8	37	25.5	46	32.2
Social Science	36	12.5	13	9	23	16.1
Language	14	4.9	11	7.6	3	2.1
Total	**288**	**100**	**145**	**100**	**143**	**100**

Non response bias was not a problem because substantially all students participated in each survey. Experimental mortality (students' drop rate, gender, age, major, grade point of average, new or repeated students and previous certificate) were of concern as there was a possibility of significant differences among respondents regarding these variables. Therefore, it would have been difficult to make comparisons between them. The researcher compared the drop rates, gender, age, major, point of average, new or repeated students and previous certificate between the experimental and control groups and found no significant difference between groups in level l (P>.05).

4.3.4 Reliability and factor analysis

From the results in the pilot study (see section 4.2.4), questions 6, 9, 11, 14 and 33 from the Learner Empowerment Scale experienced misunderstanding by students as

they loaded very low numbers. Therefore, in this study the researcher expressed the most negative questions (9, 11, 14, 25, 26, 28, 30, and 34) to positive questions. Also, the researcher expressed question 33 in a different way for clarity. However, question 6 'Alternative approaches to learning are encouraged in this class' and question 20 'This class is boring' were kept due to the nature of the questions. Therefore, only question 20 was reversed coded before running the reliability tests. The changing of the statements of Learner Empowerment Scale had impacted on the reliability and items loading in factor analysis of individual items (see Tables 4.4, 4.6, 4.16, and 4.18).

4.3.4.1 Reliability

Before performing statistical analyses of the data, all the instruments were measured for reliability. Following are the reliability results for the Learner Empowerment Scale, and the reliability of students' perceptions of the professional accounting competencies. Cronbach's Alpha was calculated for both groups together, and for each group separately (control and experimental group), as well as for pre and post survey response results.

Reliability for Learner Empowerment Scale

The reliability for Learner Empowerment Scale was as follows:

The reliability of individual statements for Learner Empowerment Scale for both groups together (control and experimental groups) and each group separately for the pre and post survey responses was examined. The overall instrument (Learner Empowerment Scale) for both groups for pre survey responses had a reliability score of 0.898; and for the control group and the experimental group respectively were 0.897 and 0.898. At the same time, the reliability for both groups together for

impact, meaningfulness and competence were 0.892, 0.929, and 0.913 respectively. The overall instrument (Learner Empowerment Scale) for both groups for post responses had a reliability score of 0.909; and for control and experimental group respectively were 0.917, and 0.873. At the same time, the reliability for both groups together for impact, meaningfulness, and competence were 0.901, 0.929, and 0.871. (Concerning pre and post responses reliability for each group for impact, meaningfulness and competence, see Table 4.16.)

Table 4.16: The Reliability of the Learner Empowerment Scale

	All groups			
	Empowerment	**Impact**	**Meaningfulness**	**Competence**
Pre Empowerment	0.898	0.892	0.929	0.913
Post Empowerment	0.909	0.901	0.929	0.871
	Control group			
Pre Empowerment	0.897	0.875	0.921	0.911
Post Empowerment	0.917	0.909	0.927	0.892
	Experimental Group			
Pre Empowerment	0.898	0.904	0.935	0.914
Post Empowerment	0.873	0.869	0.928	0.867

Reliability for students' perceptions of the Professional Accounting Competences Scale

Cronbach's Alpha was calculated for pre and post survey responses for students' perceptions of professional accounting competencies. The results showed low rates of Cronbach's Alpha for the pre responses because valid responses occurred only 60 times out of 288 attempts. In other words, there were 228 items of missing data (see Table 4.17). Given that the reliability was very low, the researcher excluded these

data. These results were attributed to the misunderstanding by Libyan students of professional accounting competencies. However, after the treatment, and due to the researcher's explanation to both groups about professional accounting competencies, students gained some knowledge about this concept. Subsequently, there was better reliability for students' perceptions of professional accounting competencies. Also, Cronbach's Alpha for the post Professional Accounting Competences for both groups together was 0.861. The reliability for the control group was .264 and for the experimental group was .950. As a result, tentative acceptance of the teaching method may have impacted on the students' ability to answer the questions. Also, Cronbach's Alpha were above the minimum recommended standard of 0.7 (Hair et al. 2006).

Table 4.17: Professional accounting competencies based on pre responses

N	Valid	60
	Missing	228
	Total	288

4.3.4.2 Factor analysis

Learner Empowerment Scale

The result of the factor analysis, using a Varimax rotation, was three-factor solution factors had eigenvalues > 1.00. All three of the learner Empowerment Scale dimensions factored out separately. Similarly, the researcher would expect that the items that loaded on what Frymier, Shulman and House (1996) named the impact, meaningfulness, and competence dimensions would do the same in this investigation.

For pre responses, the first factor accounted for 28.4% of the variance with 15 items loading on it (impact). Ten items loaded on the meaningfulness and accounted for 18% of the variance. The third factor, competence, accounted for 10.7% of the variance with eight items (see Table 4.18). Items were retained that loaded meaningfully on each empowerment dimension (factor loading > 0.5). Only item 6 failed to load on the appropriate factors based upon Frymier, Shulman and Houser's (1996) study.

From the post responses, the first factor accounted for 25.9% of the variance with 16 items loading on it *(impact).* Ten items loaded on the *meaningfulness* and accounted for 17.8% of the variance. The third factor (*competence)* accounted for 9.2% of the variance with eight items (see Table 4.19). Obviously, students understood the meaning of question number 6 after cooperative learning method was applied in the classrooms. Consequently, it loaded to the appropriate factor based on post responses. Only item 33 failed to load on the appropriate factors based upon Frymier, Shulman and Houser's (1996) studies and post responses. The results based on post responses from reliability tests and factor analysis tests show 34 items will be used for learner Empowerment Scale. As a result question 33 should be excluded from the Learner Empowerment Scale. Factor analysis was carried out again and it presented a good outcome (see Table 4.20).

Table 4.18 Learner Empowerment Scale factor analysis for based on pre responses

Items		Component		
Impact		**Impact**	**Meaningfulness**	**Competence**
1	I have the power to make a difference in how things are done in my class.	**.817**	.009	.210
2	I have a choice in the methods I can use to perform my work.	**.586**	.017	.160
3	My participation is important to the success of the class.	**.436**	.100	.348
4	I have freedom to choose among options in this class.	**.694**	.059	.248
5	I can make an impact on the way things are run in my class	**.773**	.024	.026
7	I have the opportunity to contribute to the learning of others in this class.	**.575**	.008	.202
8	I have the opportunity to make important decisions in this class.	**.648**	-.082	.245
9	I can influence what happens in this class.	**.827**	.006	.197
10	I have the power to create a supportive learning environment in this class.	**.641**	.051	.167
11	My contribution to this class makes difference.	**.810**	.015	.037
12	I can determine how tasks can be performed.	**.746**	-.018	.039
13	I make a difference in the learning that goes on in this class.	**.822**	-.008	.207
14	I have freedom to choose in this class.	**.731**	.064	.195
15	I can influence the instructor.	**.592**	-.074	-.120
16	I feel appreciated in this class	**.482**	-.046	.231
Meaningfulness				
17	The tasks required in my class are personally meaningful.	.126	**.416**	-.066
18	I look forward to going to my class.	.024	**.796**	-.033
19	This class is exciting	.030	**.806**	-.013
20	This class is boring	-.026	**.768**	-.009
21	This class is interesting.	.024	**.809**	.053
22	The tasks required in my class are valuable to me.	-.044	**.793**	.035
23	The information in this class is useful.	-.048	**.859**	.041
24	This course will help me to achieve my future goals.	.031	**.851**	.123
25	The tasks required in my class are a saving of my time.	-.062	**.867**	.057
26	This class is important to me.	.015	**.850**	.116
Competence				
27	I feel confident that I can adequately perform my duties.	.302	.051	**.807**
28	I feel relaxed by what is required of me in my class.	.165	.024	**.882**
29	I possess the necessary skills to perform successfully in class.	.165	.038	**.813**
30	I feel able to do the work in this class.	.153	.030	**.816**
31	I believe that I am capable of achieving my goals in this class.	.154	.017	**.885**
32	I have faith in my ability to do well in this class.	.156	.078	**.798**
34	I have confidence in my ability to perform the tasks in this class.	.302	.051	**.807**
35	I feel very competent in this course.	.207	-.057	**.674**

Table 4.19 Learner Empowerment Scale factor analysis for based on post responses

Items		Component		
Impact		**Impact**	**Meaningfulness**	**Competence**
1	I have the power to make a difference in how things are done in my class.	**.778**	.050	.129
2	I have a choice in the methods I can use to perform my work.	**.539**	.090	.059
3	My participation is important to the success of the class.	**.394**	.194	.280
4	I have freedom to choose among options in this class.	**.668**	.044	.147
5	I can make an impact on the way things are run in my class	**.711**	-.093	.044
6	Alternative approaches to learning are encouraged in this class	**.474**	.129	.221
7	I have the opportunity to contribute to the learning of others in this class.	**.575**	.146	.186
8	I have the opportunity to make important decisions in this class.	**.609**	-.003	.188
9	I can influence what happens in this class.	**.768**	-.023	.157
10	I have the power to create a supportive learning environment in this class.	**.538**	.067	.165
11	My contribution to this class makes difference.	**.730**	-.064	.082
12	I can determine how tasks can be performed.	**.683**	-.070	.055
13	I make a difference in the learning that goes on in this class.	**.749**	-.058	.202
14	I have freedom to choose in this class.	**.643**	.006	.170
15	I can influence the instructor.	**.572**	-.054	-.115
16	I feel appreciated in this class	**.474**	.129	.221
Meaningfulness				
17	The tasks required in my class are personally meaningful.	.190	**.485**	-.061
18	I look forward to going to my class.	.022	**.779**	.018
19	This class is exciting	.047	**.781**	.015
20	This class is boring	.151	**.680**	.006
21	This class is interesting.	.042	**.765**	.067
22	The tasks required in my class are valuable to me.	-.072	**.823**	.040
23	The information in this class is useful.	-.051	**.881**	.027
24	This course will help me to achieve my future goals.	.001	**.856**	.131
25	The tasks required in my class are a saving of my time.	-.089	**.891**	.051
26	This class is important to me.	-.018	**.861**	.134
Competence				
27	I feel confident that I can adequately perform my duties.	.486	.199	**.642**
28	I feel relaxed by what is required of me in my class.	.338	.156	**.739**
29	I possess the necessary skills to perform successfully in class.	.077	.039	**.830**
30	I feel able to do the work in this class.	.062	.030	**.834**
31	I believe that I am capable of achieving my goals in this class.	.144	-.008	**.878**
32	I have faith in my ability to do well in this class.	.128	.014	**.796**
34	I have confidence in my ability to perform the tasks in this class.	.382	.151	**.625**
35	I feel very competent in this course.	.222	-.098	**.676**

Professional accounting competencies scale

The results of the factor analysis using a Varimax rotation indicated that the three factors had eigenvalues > 1.00. The three factor solution was determined to be the most appropriate structure. Based on the post survey, the first factor accounted for 31% items of the variance with 10 items loading on *Communication and teamwork*. Three items loaded on *self-management* and accounted for 13% of the variance. The third factor, *Judgement, and Application skills*, accounted for 6% of the variance with six items (see Table 4.20). *Judgement* and *Application skills* are combined together in one factor, although there is no clear definition in the literature regarding whether they should be together or separate.

Table 4.20: Professional accounting competencies factor analysis based on post responses for Libyan students

		Component		
Items		1	2	3
Communication and teamwork				
1	This class helped me improve the decision making skills.	**.696**	.318	-.054
2	This class helped me improve my ability to get along with other people.	**.648**	.327	.055
3	This class helped me improve my interpersonal skills.	**.680**	.369	.047
4	This class encouraged me to participate actively in the learning process.	**.429**	.617	.147
5	This class helped me develop the conflict-resolution skills.	**.526**	.400	.101
6	This class encouraged me to be tolerant of differing point of view.	**.631**	.089	.288
7	This class helped me to improve the team work skill.	**.547**	.365	.093
8	This class helped me improve the communication skills.	**.736**	.166	-.060
9	This class helped me improve my persuasion skills.	**.525**	.459	.033
10	This class helped me improve my questioning skills.	**.534**	-.028	.114
Judgement, and Application skills				
11	This class helped me improve the critical thinking skills.	.131	.012	**.495**
12	This class helped me improve the problem solving skills.	.126	-.039	**.699**
13	This class encouraged me to think independently.	.056	-.033	**.605**
14	This class encouraged me to debated issue critically.	-.059	-.013	**.745**
15	This class helped me revise my prior views.	-.124	.040	**.705**
16	This class helped me improve my listening skills.	.272	.041	**.424**
self-management				
17	This class helped me improve the self management skill.	.121	**.812**	-.009
18	This class helped me improve organising time skills.	.216	**.851**	-.042
19	This class helped me scheduling and planning my work.	.288	**.788**	-.125

Similarly, the researcher would expect that the items that loaded on what Mcguigan, Weil and Kern (2011) named Communication and interpersonal (*Communication and teamwork*), and Problem solving (*Judgement, and Application skills)* dimensions would match this investigation. However, *self-management* is new for Mcguigan, Weil and Kern (2011) as their work did not investigate *self-management skills*. The item total correlation coefficients and factor loading were found above the minimum recommended standards of 0.3 and 0.4 respectively (Pallant 2007). The results from reliability tests and factor analysing tests show 19 items will be used for professional accounting competencies.

4.3.5 Hypothesis testing

In order to answer the research issue, '*What are the effects of a cooperative learning (CL) environment compared with traditional teaching environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exam in Libya?'* mean, t-test, and correlations were conducted to test the hypotheses and answer the research question.

H1: There is a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) between students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H2: There is a significant difference in students' perceptions of the development of professional accounting competencies between

students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H3: There is a significant difference in students' professional accounting competencies based on the written exams between students taught using a cooperative learning environment compared to those taught using the traditional teaching method.

H4: There are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams.

Hypothesis 1 testing using t-test

Hypothesis 1 asserted that there would be a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) among students who were taught using a cooperative learning environment compared to those who were taught using the traditional teaching method. In order to examine whether there are significant differences between cooperative learning and traditional teaching methods in terms of perceptions of empowerment and its dimensions (impact, meaningfulness, and competences), an independent sample t-test were conducted to compare perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) for experimental (cooperative learning) and control (traditional method) groups.

First comparisons should be made between pre responders of control and experimental groups. If these means are not significantly different, then any differences in post test will be consistent with cooperative learning method effect.

Based on pre Learner Empowerment Scale responses, the Levene's test is not significant (p=0.323, 185 and 0.876 respectively) for empowerment, meaningfulness and competences. Therefore, the groups' variances can be regarded as equal. The t-test indicates that there is no significant difference between student groups in cooperative learning and traditional teaching methods on their perceptions of empowerment (over all the Learner Empowerment Scale) and its dimensions (meaningfulness and competences). However, the Levene's test is significant (p=0.001) in impact. Therefore, group variances cannot be regarded as equal. With equal variances not assumed, there is no statistically significant difference between the two groups in terms of their impact (t (-.600) =263) at p=0.001. Consequently, any difference in post Learner Empowerment Scale responses will be consistent with cooperative learning method effects (see Table 4.21).

Table: 4. 21: Summary of t-test for H1 based on pre responses

Empowerment	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.981	.323	-.422	270	.673
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	136	53.37		13.970	
Experiment group (cooperative)	136	54.11		15.025	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	4.519	.034	-.602	276	.548
Equal variances not assumed			-.600	263.4	.549
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	142	30.50		8.336	
Experiment group (cooperative)	136	31.16		9.957	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	2.002	.158	-.620	279	.536
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	139	11.97		6.314	
Experiment group (cooperative)	142	12.46		7.003	
Competences	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.028	.867	.796	286	.427
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	11.03		5.442	
Experiment group (cooperative)	143	10.52		5.429	

The number of cases is different between the dimensions due to the missing data (see missing data section). For example, there were no missing data in competence. However, the other dimensions such as (empowerment, impact, and meaningfulness) have some missing data.

Based on post Learner Empowerment Scale the study found that students who studied in cooperative learning method classes had significantly higher perceptions of empowerment and its dimensions (impact, meaningfulness) than students who studied under traditional teaching method (see Table: 4.22). The mean and standard deviation of the Learner Empowerment Scale and its dimensions for students in cooperative learning groups showed higher mean values compared to student groups involved in traditional teaching method. The overall Learner Empowerment Scale means for cooperative learning groups were (M= 65.57, SD= 14.402) and for traditional teaching method group were (M= 53.06, SD= 15.328) (see Table 4.22). The means and SD of impact and meaningfulness in cooperative learning group were (M=36.81, SD= 16.03 and M=16.03, SD=7.664) and for traditional teaching method group were (M= 29.66, SD=12.28 and M=12.28, SD=6.628) respectively. The teaching method had influences on students' perceptions of empowerment and its dimension (impact and meaningfulness). However, there was no difference emerged in mean and SD in competence between cooperative learning and traditional groups (M=9.97, SD=4.766 and M=10.95, SD=4.682). The Learner Empowerment Scale and its dimensions contain significant difference at 0.05 levels.

These results may be attributed to the immediate effect of the impact of the teaching method on change, and impact and meaningfulness—however; it is difficult to change students' competence.

Table: 4. 22: Summary of t-test for H1 based on post responses

Empowerment	**Levene's Test**			**t-test for Equality of Means**	
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.070	.792	-7.021	277	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	53.06		15.328	
Experiment group (cooperative)	139	65.57		14.402	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.003	.953	-6.539	277	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	29.66		9.216	
Experiment group (cooperative)	139	36.81		9.062	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	7.139	.008	-4.373	277	.000
Equal variances not assumed			-4.370	270.796	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	12.28		6.628	
Experiment group (cooperative)	139	16.03		7.664	
Competences	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.030	.864	-1.729	277	.085
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	9.97		4.766	
Experiment group (cooperative)	139	10.95		4.682	

An independent sample t-test and paired-samples t-test were also conducted (for more analysing, see chapter 3) to compare the same group, but at different times. In other words, the tests compared between pre and post responses in the control group, and experimental groups. The objective of conducting an independent sample t-test and paired-samples is to assess students' perceptions of empowerment improved for both groups during the timeframe.

Firstly, an independent sample t-test and a paired-samples t-test were conducted to compare between pre and post Learner Empowerment Scale responses in cooperative learning group. The results indicated that, there was no significant difference between students in pre and post responses in traditional group in the scores in the Learner empowerment scale scores for pre (M=53.29, SD=13.941) and post responses (M=52.66, SD=14.711) conditions; t (262) =.356, at p = 0.05 (see

Table 4.23 and 4.24). These results are attributed to the proper implementation of traditional method by the researcher.

Table: 4. 23: Summary of independent t-test for H1 based on pre and post Learner Empowerment Scale's responses in traditional teaching method's group

Empowerment	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.256	.614	.356	262	.722
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	53.29		13.941	
Post traditional group	132	52.66		14.711	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.486	.486	.741	262	.459
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	30.27		8.507	
Post traditional group	132	29.46		9.245	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.007	.934	-.137	262	.891
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	12.00		6.274	
Post traditional group	132	12.11		6.281	
Competences	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.926	.166	1.740	262	.083
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	11.02		5.373	
Post traditional group	132	9.94		4.646	

Table: 4. 24: Summary of paired sample t-test for H1 based on pre and post Learner Empowerment Scale's responses in traditional teaching method's group

Empowerment	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.996	.000	4.952	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	53.29		13.941	
Post traditional group	132	52.66		14.711	
Impact	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.991	.000	6.58	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	30.27		8.507	
Post traditional group	132	29.46		9.245	
Meaningfulness	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.998	.000	-2.93	131	.004
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	12.00		6.274	
Post traditional group	132	12.11		6.281	
Competences	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Equal variances assumed	.994	.000	13.6	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	132	11.02		5.373	
Post traditional group	132	9.94		4.646	

Secondly**,** an independent sample t-test and a paired-samples t-test were conducted to compare between pre and post Learner Empowerment Scale responses in cooperative learning group. The results indicated that, there was a significant difference in the scores in the Learner empowerment scale scores for pre (M=53.98, SD=15.123) and post responses (M=65.63, SD=14.455) conditions; t (-6.395)=-131 at p = 0.05(see Table 4.25 and 4.26).

Table: 4. 25: Summary of independent t-test for H1 based on pre and post Learner Empowerment Scale responses in cooperative learning's group

Empowerment	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.000	.995	-6.39	262	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	53.98		15.123	
Post cooperative group	132	65.63		14.455	
Impact	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.798	.373	-5.133	262	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	31.04		9.993	
Post cooperative group	132	37.09		9.148	
Meaningfulness	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.858	.174	-3.837	262	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	12.43		6.992	
Post cooperative group	132	15.86		7.501	
Competences	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	2.016	.157	-.607	262	.544
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	10.52		5.561	
Post cooperative group	132	10.90		4.748	

Table: 4. 26: Summary of a paired-samples t-test for H1 based on pre and post Learner Empowerment Scale's responses in cooperative learning's group

Empowerment	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.862	.000	-17.177	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	53.98		15.123	
Post cooperative group	132	65.63		14.455	
Impact	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.902	.000	-16.085	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	31.04		9.993	
Post cooperative group	132	37.09		9.148	
Meaningfulness	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.720	.000	-7.227	131	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	12.43		6.992	
Post cooperative group	132	15.86		7.501	
Competences	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.966	.000	-2.826	131	.005
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	132	10.52		5.561	
Post cooperative group	132	10.90		4.748	

Hypothesis 1 is supported. Results using t-test do support hypothesis 1. Students taught by the cooperative learning method perceive that they have greater empowerment than students taught by the traditional teaching method and students taught under the traditional teaching method are less empowered than cooperative

learning method students. The teaching method does influence students' perceptions of empowerment. Qualitative data will explain further about the influence of teaching method on students' perceptions of empowerment.. These results suggest that teaching method really do have an effect on students' perceptions of empowerment. Specifically, the results suggest that when students attended the cooperative learning method classes the mean of students' perceptions of empowerment increased. Consequently, the difference in pre and post Learner Empowerment Scale responses is consistent with the cooperative learning method effect.

Hypothesis 2 using t-test

In order to test hypothesis 2, 'There is a significant difference in students' perceptions of the development of professional accounting competencies between students who were taught using a cooperative learning environment compared to those who were taught using the traditional teaching method', the study employed t-test. T-test was applied to explore the differences between experimental (cooperative learning) and control (traditional method) groups in professional accounting competencies and its dimensions.

Based on post students' perceptions of development of professional accounting competencies, communication and teamwork, judgement and application skills, and self-management responses there is a statistically significant difference between the two groups. The t-test indicates that there is a significant difference between students in cooperative learning and traditional teaching method groups in their perceptions of professional accounting competencies, judgement, and application skills and self-management. The t-test indicated that there is a highly significant difference in

means between the control and experimental groups in terms of perceptions of development of professional accounting competencies, communication and teamwork, judgement and application skills, and self-management (t (277) =-10.769,= -11.951, =2.947 and =-15.306) respectively at p=0.05. As predicted, students who attended cooperative learning classes indicated higher perceptions of professional accounting competencies (M= 55.2014, SD=15.16631) than those who attended traditional method classes (M= 39.9643, SD=7.06436).

Table: 4.27: Summary of t-test for H2

professional accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	106.6	.000	-10.76	277	.000
Equal variances not assumed			-10.744	194.8	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control groups (traditional)	140	39.9643		7.06436	
Experiment group (cooperative)	139	55.2014		15.16631	
Communication and teamwork	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	98.388	.000	-11.951	277	.000
Equal variances not assumed			-11.927	207.7	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	20.8357		5.34643	
Experiment group (cooperative)	139	32.5108		10.23801	
Judgement, and Application skills	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.684	.409	2.947	277	.003
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	10.5643		3.82196	
Experiment group (cooperative)	139	9.1871		3.98288	
Self-management	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.980	.323	-15.306	277	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	6.1786		2.38179	
Experiment group (cooperative)	139	11.2806		3.13704	

Hypothesis 2 asserted that there would be a significant difference in students' perceptions of the development of professional accounting competencies among students taught in a cooperative learning environment compared to those taught

using the traditional teaching method. Hypothesis 2 is supported. Students taught by cooperative learning perceived that they have developed their professional accounting competencies more than students who were taught by the traditional teaching method. This indicates that the teaching method influences development of students' perceptions of professional accounting competencies.

Hypothesis 3 using t-test

Hypothesis 3 asserted that there would be a significant difference in students' professional accounting competencies based on the written exams between students who were taught in a cooperative learning environment compared to those who were taught using the traditional teaching method. There were two pre and post written exams conducted to test this hypothesis. A t-test was applied to explore the differences between experimental (cooperative learning) and control (traditional method) groups in professional accounting competencies based on the written exam.

A) Pre- post written exam 1

For professional accounting competencies based on pre written exam 1 responses: The t-test indicated that there is no significant difference in means between the control and experiment groups in terms of perceptions of development of professional accounting competencies based on the pre written exam 1 in overall written exam, and Q3 (measured critical thinking, problem solving and technical accounting competencies) (t (286) =.320 and =.121) respectively and Q1 (measured critical thinking) (t (144) =1.419) p=0.05). Regarding Q2 (measured writing skills) there were no results shown in t-test due to the fact that most of students did not answer the question and most of the scores were (zeros) for both groups (see Table 4.28). Consequently, if there is any significant difference in students' professional accounting competencies based on the post written exams 1 among students taught

under cooperative learning and traditional teaching methods, this result will be consistent with the cooperative learning method effect.

Table 4.28: Summary of t-test for H3 based on pre written exam 1

Final grade for pre written exam 1	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.182	.670	.320	286	.749
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	.30		.586	
Experiment group (cooperative)	143	.28		.582	
Q1 measured critical thinking	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	8.171	.005	1.40	286	.160
Equal variances not assumed			1.41	144	.158
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	.01		.117	
Experiment group (cooperative)	143	.00		.000	
Q2 measured writing skill	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	0	0	0	0	0
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	.00		.000	
Experiment group (cooperative)	143	.00		.000	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.004	.949	.121	286	.904
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	.29		.572	
Experiment group (cooperative)	143	.28		.582	

For professional accounting competencies based on post written exam 1 responses: The t-test indicated that there is no significant difference in means between the control and experiment groups in terms of perceptions of development of professional accounting competencies based on the post written exam 1 in overall exam, Q1, Q2, and Q3 (t (286) =.467, =-.392, = -.450 and =.754) respectively at p=0.05 (see Table 4.29). This result may be attributed to the time between pre and post written exam 1 of only six weeks (middle of semester exam), and most of students do not do well in the middle exam but they do better in the final exam.

Table 4.29: Summary of t-test for H3 based on post written exam 1

Final grade for pre written exam 1	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	3.578	.060	.467	286	.641
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	13.9517		5.46098	
Experiment group (cooperative)	143	13.6608		5.09508	
Q1 measured critical thinking	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	11.249	.001	-.392	286	.696
Equal variances not assumed			-.392	284	.696
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	1.1552		.92330	
Experiment group (cooperative)	143	1.1993		.98785	
Q2 measured writing skill	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.903	.343	-.450	286	.653
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	1.1000		.95670	
Experiment group (cooperative)	143	1.1503		.94391	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.242	.266	.754	286	.451
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	145	11.6966		4.39057	
Experiment group (cooperative)	143	11.3112		4.27728	

An independent sample t-test and paired-samples t-test were also conducted (for more analysing see chapter 3) to compare the same group, but at different times. In other words, the testes compared between pre and post responses in the control group, and experimental group. The objective of conducting an independent sample t-test and paired-samples is to assess if students' professional accounting competencies based on written exam 1 responses improved between pre and post written exam 1 for each group.

Firstly, the independent sample t-test and paired-samples t- test for written exam 1 in traditional group (control group) indicated that there is a significant difference in

means between pre and post written exams 1 response. There was a significant difference in pre written exam 1 in the overall exam (M=0.30, SD=.586) and post written exam 1 (M=13.95, SD=5.461) conditions; t (144)= -29.882 at p = 0.005 (see Table 4.30 and 4.31).

Table 4.30: Summary of t-test for H3 based on pre and post written exam 1 for traditional teaching method's group

Final grade for pre post written exam 1	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	335.849	.000	-29.92	288	.000
Equal variances not assumed			-29.81	148.3	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	145	.30		.586	
Post traditional group	145	13.95		5.461	
	Levene's Test		**t-test for Equality of Means**		
Q1 measured critical thinking	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	302.999	.000	-14.76	288	.000
Equal variances not assumed			-14.76	148.6	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	145	.01		.117	
Post traditional group	145	1.16		.923	
Q2 measured writing skill	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1596.39	.000	-13.84	288	.000
Equal variances not assumed			-13.84	144.0	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	145	.00		.000	
Post traditional group	145	1.10		.957	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	293.606	.000	-31.02	288	.000
Equal variances not assumed			-30.86	150.4	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	145	.29		.572	
Post traditional group	145	11.70		4.391	

Table 4.31: Summary of paired sample t-test for H3 based on pre and post written exam 1 for traditional teaching method's group

Final grade for pre written exam 1	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	-.014	.867	-29.88	144	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	145	.30		.586	
Post traditional group	145	13.95		5.461	
Q1 measured critical thinking	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.044	.597	-14.850	144	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	143	.00		.000	
Post traditional group	143	1.20		.988	
Q2 measured writing skill	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed			-13.845	144	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	143	.00		.000	
Post traditional group	143	1.15		.944	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.015	.853	-31.08	144	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	143	.28		.582	
Post traditional group	143	11.31		4.277	

Secondly, the independent sample t-test and paired-samples t- test for written exam 1 in cooperative learning method (experimental group) indicated that there is a significant difference in means between pre and post written exams 1 response. There was a significant difference in pre written exam 1 in the overall written exam 1 (M=0.28, SD=.582) and post written exam 1 (M=13.66, SD=5.095) conditions; (t (146)= --31.078) at p = 0.005 (see Table 4.32 and 4.33).

Table 4.32: Summary of t-test for H3 based on pre and post written exam 1 for cooperative learning method's group

Final grade for pre and post written exam 1	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	185.44	.000	-31.07	284	.000
Equal variances not assumed			-31.07	147	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.28		.582	
Post cooperative group	143	13.66		5.095	
Q1 measured critical thinking	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1351.64	.000	-14.51	284	.000
Equal variances not assumed			-14.51	142.	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.00		.000	
Post cooperative group	143	1.20		.988	
Q2 measured writing skill	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	973.050	.000	-14.57	284	.000
Equal variances not assumed			-14.57	142.	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.00		.000	
Post cooperative group	143	1.15		.944	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	180.918	.000	-30.40	284	.000
Equal variances not assumed			-30.40	148.82	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.28		.582	
Post cooperative group	143	11.31		4.277	

Table 4.33: Summary of paired sample t-test for H3 based on pre and post written exam 1 for cooperative learning method's group

Final grade for pre and post written exam 1	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.155	.064	-31.76	142	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.28		.582	
Post cooperative group	143	13.66		5.095	
Q1 measured critical thinking	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.	.	-14.518	142	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.00		.000	
Post cooperative group	143	1.20		.988	
Q2 measured writing skill	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed			-14.574	142	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.00		.000	
Post cooperative group	143	1.15		.944	
Q3 measured critical thinking, problem solving and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.127	.132	-31.09	142	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	143	.28		.582	
Post cooperative group	143	11.31		4.277	

The results from pre and post written exam 1 suggest that when students learn in classes (traditional or cooperative), their exam results will improve. This result is attributed to the students' willingness to learn in any situation—either via the traditional teaching method or the cooperative learning method. Studying in the course did help students to improve their professional accounting competencies. These results suggest that cooperative learning and traditional teaching methods do have an effect on students' professional accounting competencies based on the written exam 1. The result above is again attributed to the students' willingness to

learn irrespective of whether they attend traditional teaching method classes or cooperative learning method classes.

B) Pre- post written exam 2

For professional accounting competencies based on pre written exam 2 responses. The t-test indicated that there is no significant difference in means between the control and experiment groups in terms of perceptions of development of professional accounting competencies based on the pre written exam 2 in overall written exam, and Q1, Q2, and Q3 (t (277) =.897,= -.464, =1.012 and =1.110) respectively at p=0.05 (See Table: 4.34). Consequently, if there is any significant difference in students' professional accounting competencies based on the post written exams 1 among students taught under cooperative learning and traditional teaching methods, this result will be consistent with the cooperative learning method effect.

Table 4.34: Summary of t-test for H3 based on pre written exam 2

Final grade for pre written exam 2	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	2.798	.095	.897	277	.370
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	1.83		3.139	
Experiment group (cooperative)	139	1.51		2.973	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.655	.419	-.464	277	.643
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	.19		.414	
Experiment group (cooperative)	139	.22		.413	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	3.111	.079	1.012	277	.312
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	.84		1.528	
Experiment group (cooperative)	139	.66		1.457	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	5.022	.026	1.109	277	.268
Equal variances not assumed			1.110	276	.268
Students' group	**N**	**Mean**		**Std. Deviation**	
Control groups (traditional)	140	.80		1.337	
Experiment group (cooperative)	139	.63		1.227	

For professional accounting competencies based on post written exam 2 responses. The t-test indicated that there is significant difference in means between the control and experiment groups in terms of perceptions of development of professional accounting competencies based on the post written exam 2 in overall written exam, Q1, Q2, and Q3 (t (233)=-12.714, t (264)=-4.292, t (242)=- -11.038) and, t (243)= -10.544) respectively at p=0.05 (see Table 4.35). The results from post written exam 2 are as the researcher predicted. Students who attended cooperative learning method classes did better in the overall exam, Q1, Q2, and Q3.

Table 4.35: Summary of t-test for H3 based on post written exam 2

Final grade for pre written exam 2	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	52.656	.000	-12.694	277	.000
Equal variances not assumed			-12.714	233	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	25.31		8.372	
Experiment group (cooperative)	139	35.92		5.210	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	7.855	.005	-4.292	277	.000
Equal variances not assumed			-4.296	264	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	5.73		2.679	
Experiment group (cooperative)	139	6.97		2.123	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	10.550	.001	-11.053	277	.000
Equal variances not assumed			-11.038	242	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	4.31		1.347	
Experiment group (cooperative)	139	6.56		1.990	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	49.111	.000	-10.530	277	.000
Equal variances not assumed			-10.544	243	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Control group (traditional)	140	15.27		6.634	
Experiment group (cooperative)	139	22.39		4.431	

An independent sample t-test and paired-samples t-test were also conducted:

Firstly, the independent sample t-test and paired-samples t- test for written exam 1 in traditional group (control group) indicated that there is a significant difference in means between pre and post written exam 2 response. There was a significant difference in written exam 1, in the overall exam (M=1.83, SD=3.139) and post written exam 2 (M=25.31, SD=8.372) conditions; t(139)= -35.267 p = 0.05 (see Table 4.36 and 4.36).

Table 4.36: Summary of t-test for H3 based on pre post written exam 2 for traditional teaching method's group

Final grade for pre post written exams 2	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	164.38	.000	-31.073	278	.000
Equal variances not assumed			-31.073	177	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	1.83		3.139	
Post traditional group	140	25.31		8.372	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	385.32	.000	-24.162	278	.000
Equal variances not assumed			-24.162	146	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.19		.414	
Post traditional group	140	5.73		2.679	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	3.218	.074	-20.165	278	.000
Equal variances not assumed			-20.165	274	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.84		1.528	
Post traditional group	140	4.31		1.347	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	325.05	.000	-25.304	278	.000
Equal variances not assumed			-25.304	151	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.80		1.337	
Post traditional group	140	15.27		6.634	

Table 4.37: Summary of paired sample t-test for H_3 based on pre post written exam 2 for traditional teaching method's group

Final grade for pre post t written exams 2	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.340	.00	-35.26	139	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	1.83		3.139	
Post traditional group	140	25.31		8.372	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.074	.388	-24.43	139	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.19		.414	
Post traditional group	140	5.73		2.679	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.105	.219	-21.30	139	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.84		1.528	
Post traditional group	140	4.31		1.347	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.310	.00	-26.97	139	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre traditional group	140	.80		1.337	
Post traditional group	140	15.27		6.634	

Secondly, the independent sample t-test and paired-samples t- test for written exam 2 in the traditional group (control group) indicated that there is a significant difference in means between pre and post written exams 2 response. There was a significant difference in pre written exam 2 in the overall written exam (M=1.51, SD=2.973) and post overall written 2 (M=35.92, SD=5.210) conditions; t (138)= -71.219 at p = 0.000 (see Table 4.38 and 4.39).

Table 4.38: Summary of t-test for H_3 based on pre post written exam 2 for cooperative learning method's group

Final grade for pre post written exam 2	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	45.727	.000	-67.63	276	.000
Equal variances not assumed			-67.63	219	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	139	1.51		2.973	
Post cooperative group	139	35.92		5.210	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1808.22	.000	-36.82	276	.000
Equal variances not assumed			-36.82	148	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.22		.413	
Post cooperative group	139	6.97		2.123	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	9.933	.002	-28.20	276	.000
Equal variances not assumed			-28.20	253	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.66		1.457	
Post cooperative group	139	6.56		1.990	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Levene's Test**		**t-test for Equality of Means**		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	103.379	.000	-55.80	276	.000
Equal variances not assumed			-55.80	159	.000
Students' group	**N**	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.63		1.227	
Post traditional group	139	22.39		4.431	

Table 4.39: Summary of paired sample t-test for H3 based on pre post written exam 2 for cooperative learning method's group

Final grade for pre post written exams 2	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.113	.185	-71.219	138	.000
	N	**Mean**		**Std. Deviation**	
Pre cooperative group	139	1.51		2.973	
Post cooperative group	139	35.92		5.210	
Q1: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	-.009	.913	-36.76	138	.000
	N	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.22		.413	
Post cooperative group	139	6.97		2.123	
Q2: measured critical thinking, problem solving, and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.031	.718	-28.62	138	.000
	N	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.66		1.457	
Post cooperative group	139	6.56		1.990	
Q3: measured critical thinking, problem solving, writing skill and technical accounting competencies	**Paired sample correlation**		**t-test for Equality of Means**		
	Correlation	Sig.	t	df	Sig. (2-tailed)
	.083	.330	-57.051	138	.000
	N	**Mean**		**Std. Deviation**	
Pre cooperative group	139	.63		1.227	
Post cooperative group	139	22.39		4.431	

Hypothesis 3 was supported. These results suggest the cooperative learning method really does have an effect on students' professional accounting competencies based on the written exam 2. Specifically, the results suggest that when students learn under the cooperative learning method, their exam results will improve. Students taught by the cooperative learning method perceive that they have better professional accounting competencies based on written exams than students taught by traditional teaching method. This indicates that the teaching method has an influence on students' professional accounting competencies based on written exams. Traditional teaching method students are less competent than cooperative learning method students based on post written exam 2.

Hypothesis 4 testing using correlations

Hypothesis 4 is supported. There are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams. Results using Pearson Correlation analysis support this hypothesis (see Table 4.40). The overall Learner Empowerment Scale achieved significant and positive correlations with the professional accounting competencies based on student perceptions (r=.545**, p<.01) and the professional accounting competencies based on written exams (r=.345**, p<.01) (see Table 4.40).

Professional accounting competencies based on students' perceptions had the highest correlation with Learner Empowerment Scale (see Table 4.40). The result from hypothesis 4 indicates that there are relationships between perceptions of empowerment, and professional accounting competencies based on students' perceptions and written exam. These results indicate that students' perceptions of empowerment and development of professional accounting competencies based on

students' perceptions and written exam influence each other and the influence comes from the teaching method. Students feel empowered; their performances in written exam are enhanced; and they develop their professional accounting competencies when taught using the cooperative learning method.

Table 4.40: The correlations between professional accounting competencies (PAC) (based on students' perceptions and written exam), and students' perceptions of empowerment (LES).

	Empowerment	(PAC) based on students' Perceptions	(PAC) based on written exam
Empowerment	1	.545**	345**
(PAC) based on students' Perceptions	.545**	1	.316**
(PAC) based on written exam	.345**	.316**	1

***. Correlation is significant at the 0.01 level (2-tailed).*

4.3.6 Conclusions

The findings shared in this chapter include the statistical analysis to test hypotheses (H1, H2, H3, and H4) that relate to the research issues and are summarised in Table 4.41. These results of the hypotheses were supported quantitatively and are presented in the next chapter—which is based upon qualitative analysis. The overall findings of this study, followed by a discussion, will be presented in Chapter Six.

Table 4.41: Hypotheses and conclusions

Hypothesis	**conclusions**
H1 There is a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) between students taught using a cooperative learning environment compared to those taught using traditional teaching method.	supported

Summary of H1

	Empowerment		**Impact**		**Meaningfulness**		**Competences**	
	pre mean	**post mean**	**pre mean**	**post mean**	**pre mean**	**post mean**	**pre mean**	**post mean**
Traditional group	53.29	52.66	30.27	29.5	12	12.11	11.02	9.94
Cooperative group	53.98	65.63	31.04	37.1	12.43	15.86	10.52	10.9

H2 There is a significant difference in students' perceptions of the development of professional accounting competencies between students taught using a cooperative learning environment compared to those taught using traditional teaching method.	supported

Summary of H2

	Professional accounting competencies	**Communication and teamwork**	**Judgement, and Application skills**	**Self-management**
	Post mean	**Post mean**	**Post mean**	**Post mean**
Traditional group	39.9643	20.8357	10.5643	6.1786
Cooperative group	55.2014	32.5108	9.1871	11.2806

H3 There is a significant difference in students' professional accounting competencies based on the written exams between students taught using a cooperative learning environment compared to those taught using traditional teaching method.	supported

Summary of H3

	Final grade		**Q1**		**Q2**		**Q3**	
	pre mean	**post mean**	**pre mean**	**post mean**	**pre mean**	**post mean**	**pre mean**	**post mean**
written exams 1								
Traditional group	0.3	13.95	0.01	1.16	0	1.1	0.29	11.69
Cooperative group	0.28	13.66	0	1.2	0	1.1503	0.28	11.31
written exams 2								
Traditional group	1.83	25.3	0.19	5.73	0.84	4.31	0.8	15.27
Cooperative group	1.51	35.9	0.22	6.97	0.66	6.56	0.63	22.39

H4 There are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams.	Supported (see Table 4.40)

CHAPTER FIVE

QUALITATIVE ANALYSIS

CHAPTER FIVE: QUALITATIVE ANALYSIS

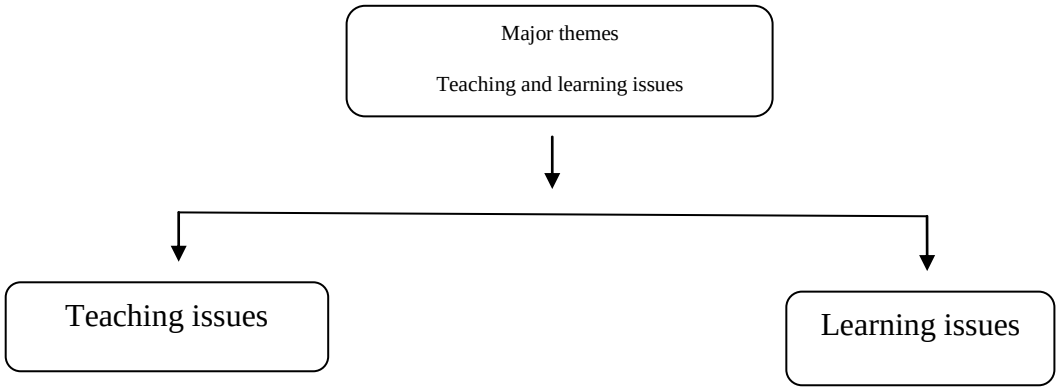
5.1 Introductions

The purpose of this chapter is to describe how qualitative data was collected to further explain the quantitative findings. As outlined in previous chapters, this study is concerned with exploring issues related to current practice in the teaching and learning of accounting at Libyan university level, and trialling a cooperative learning method aimed at assisting students to learn accounting in meaningful ways, leading to empowerment and enhanced development of their professional accounting competencies. Therefore, this study attempts to answer the following research question:

> *'What are the effects of a cooperative learning (CL) environment compared to traditional teaching environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exams in Libya?'*

This chapter highlights teaching and learning themes that emerged through the process of qualitative data analysis. The themes were identified according to the main problem of the research and research question. Another two times emerged which the researcher did not like to waste data (culture and resistance). Each theme consists of two sub-themes, namely, teaching issues and learning issues (see Figure 5.1). The results of each of these sub-themes are presented in the following sections from the participants' point of view. The participants included students who attended the cooperative learning method's classes (experimental group) and the traditional teaching method classes (control group) in Principles of Accounting (I) as part of their study in a business degree institution in a Libyan context.

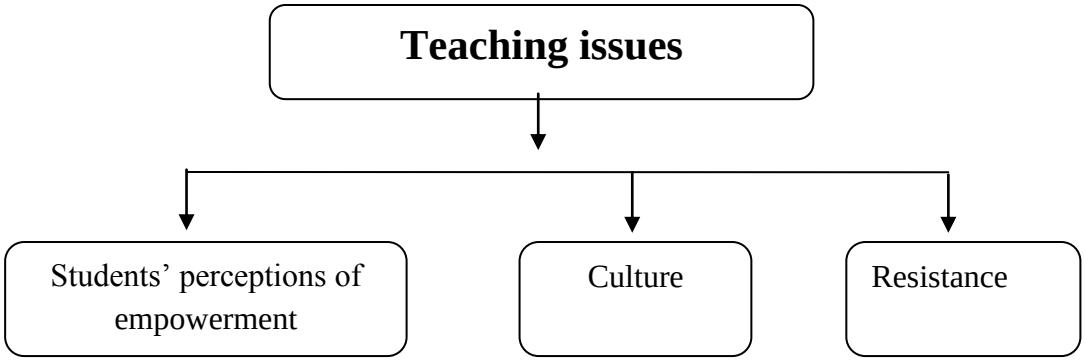
Figure 5.1: Major themes from qualitative data



5.2 Teaching issues

This section presents teaching issues in accounting education at Libyan business degree institution prior to and during the utilisation of cooperative learning method. Teaching issues relate to research question that emerged from the qualitative data analysis, namely, students' perceptions of empowerment in the classroom, culture, and resistance. Before the experiment approximately 80% of students showed resisted to adopt the method of cooperative learning in the classroom. However, after the first meeting with students the numbers start to decrease until it reached approximately 70%. After they had attended the cooperative learning classes approximately 70% of the students felt empowered. The issues (shown in Figure 5.2) are presented separately in the following sub-sections and represent comments from participants.

Figure 5.2: Teaching Issues



5.2.1 Students' perceptions of empowerment

(A) Prior to applying cooperative learning and during traditional teaching methods in the classes

The most important reason offered by students for not feeling empowered is that students perceived they did not have any impact in the classroom. Specifically, instructors did not allow students to clarify difficult issues; instructors were dominant in class sessions; and they ignored students' questions in the classroom. Furthermore, only instructors had the right to talk or give opportunities to selected students to talk in the class. Students could not influence the instructor—instructors, at times, acknowledged some good questions, whilst ignoring all other questions. If students wish to ask a question or clarify an issue, they are required to consult with the instructor at the break or after class. Instructors were the primary source of knowledge, and students are required to be good receptors. Overall, instructors believe opening discussion with students is exceedingly time-consuming—as evidenced by the following comments from students:

> *We have to be quiet for three hours; only the teacher and some particular students (good achievers) could talk in the class (Student comment).*

> *Our teachers are always very strict and they do not like us to talk in class time. Sometimes our teachers give us [the] chance to ask questions only in the break or after class (Student comment).*
>
> *Our teachers do not like us to raise questions – they think this is wasting time (Student comment).*

Student participation is not considered important for success in class; and students feel their views are not valued in the classroom. The following comments support these views:

> *…Sometimes, teachers mock us if we asked silly questions (Student comment).*
>
> *… I am afraid that, if I ask questions, the teacher and students will laugh (Student comment).*

Instructors using traditional teaching method did not give students opportunities to ask questions, or to answer or clarify difficult issues in the classrooms. Instructors felt learning occurred when the explanation was offered to a classroom of quiet and acquiescent students. Most students could not ask questions even if they wanted to. Essentially, students are discouraged from inquiring; and the accepted school culture is that students sit quietly and do not inquire during classes. Thus, they do not have the power to contribute to creating a supportive learning environment, or have an opportunity to contribute to the learning of others in the classroom. The following comments from participants provide support for this view:

> *We cannot share our ideas with peers and we cannot ask them if we want to clarify something. Sometimes we can understand things more clearly from*

> *each other, but we don't have a chance to do so in the classroom (Student comment).*
>
> *We have learned from primary school and from home, that it is not polite to disturb older people or to take their job. We have to respect older people: what they say and do (Student comment).*

In the current method of teaching (traditional method) students sit in rows and the lecturer stands in front of the class near the board to explain the course content. This type of teaching method affects empowerment in the class. Throughout the researcher's reflections in the traditional method classrooms, students sat quietly—it looked like they had come to class just to gain marks for participation. Pre researcher reflection was:

> *Students sat quietly, not paying attention to the teacher's explanation. The researcher observed the signs of boredom and of no interest from students to learn (Researcher's comment).*

Some students believe that some instructors are not confident in their knowledge of the content, and that is why they do not offer students the opportunity to ask questions. A comment supporting this view is provided:

> *...some teachers are worried about students' questions because [the teacher is] not good at the content, If he or she is good with the content, why don't they give us the opportunity? (Student comment)*

(B) Applying cooperative learning method in classes

By using the cooperative learning method in accounting classes students can experience influence in their learning. The cooperative learning method facilitates an

environment where students can help each other and make individual decisions. Cooperative learning method provides students with opportunities to ask questions and clarify tasks. Additionally, students experience a good relationship with the instructor and feel more appreciated in the cooperative learning method classes. The following are some of their comments in relation to this aspect:

> *I have a better understanding of the problem we solved, when I discussed it with peers (Student comment).*
>
> *Our teacher did not mock our talking when we said something wrong (Student comment).*
>
> *I like this class because whatever we ask, teacher will not say it's wrong. We can share our ideas and help those students who need help in completing the work (Student comment).*
>
> *All the answers are accepted; and no wrong answer makes students more active in the classroom (Student comment).*

A small number of students did not like the cooperative learning method—they felt that in this environment the instructor did not make any effort to teach; and low achievers receive the information without any effort.

> *No, I don't really like this kind of teaching. I feel our teacher does not have any information. She did not prepare for the lesson and wants us to explain to each other (student comment).*
>
> *I feel my peers get my effort. I study hard and they get it easy (Student comment).*

> *We waste our time by attending these classes, where all the students in the class talk to each other. We have to teach them if they don't know. We work at home before classes and they just take it. We do not see the teacher giving any new information (Student comment).*

> *I like the method we used before – rather than this method of teaching – because the teacher explains everything for us and that makes our life easier. But here we have to work hard in the class to understand (Student comment).*

During implementation of cooperative learning method, clearly there were more inquiries from students. Researcher reflections on the cooperative learning method classes indicate that students were very cooperative and keen to encourage dialogue when there were class discussions; and female students were more cooperative than male students. Students felt more comfortable in cooperative learning method's classes which enabled enquiry; and liked the idea of practising accounting by participating in the activities to reach the correct answer. Researcher's reflections and students comments were:

> *Students want more inquiry activities and discussions. I am surprised how students suddenly changed their behaviour. Female students were working very hard – I was impressed by them (Researcher comment).*

> *Our teacher deals with us as a friend, not like our teachers before. They always used to be very strict and they didn't like us asking questions in classes (Student comment).*

> *Having more than one answer and making mistakes are better than being given one correct answer (Student comment).*

I learnt I need to be quiet in the class. It was only the teacher who had the right to talk in the class – also some particular students. But now it's different: all of us can talk and ask questions without any fears (Student comment).

...But now I can ask whatever I like, and this makes me more able to understand (Student comment).

5.2.2 Culture

Libya is an Islamic country, with one of its principles involving people helping each other, and looking after and taking care of weaker people in the community (for example, the elderly, the disabled and children). The whole society is built on the cooperative principles of Islamic culture. Islam teaches people to be socially responsible for each other. Based on these principles, parents encourage their children to help and cooperate with others in their life. The following subsections address the issue of culture in cooperative learning method.

(A) Prior to applying cooperative learning and during traditional teaching methods' classes

Passive learning by students is customary in the Libyan education system and is the result of cultural traditions. Although some students have experienced some kind of informal group-based learning at private tuition centres, generally in the Libyan education system students sit quietly in classrooms while instructors transfer or communicate with their students through direct explanation. The culture of the Libyan education system considers that when students speak or attempt to help each other in the classroom it is either because a student is being impolite or is cheating.

Libyan students consider discussing the content or asking questions as unacceptable classroom practice, because of their cultural background. Furthermore, the culture of the education system itself does not encourage students to help each other. Instructors prefer students to be quiet and obedient. Students admitted that normally their instructors did not allow them to interact with others during the lesson. Comments from students were:

> *.....Our teachers explain all the time and want us to keep listening to them quietly. We were brought up in these roles (Student comment).*

> *I remember my teacher in school chastised me when he saw that one of my classmates helped me: we learnt it is not good for us to help each other in the content. Also, helping other students takes our effort and they may have better results than me (Student comment).*

> *...we have to respect them (teachers), that is what we learnt. We cannot interrupt older people or teachers (Student comment).*

(B) Applying cooperative learning method in classes

After implementation of the cooperative learning method, students realise the contradictory factors between the principles of home and the education system culture.

> *I realised that our culture is very much based on the principles of this teaching method. We have same cultural principles. But sorry – we do not apply it in the school (Student comment).*

Now, it's fine to talk with the teacher and ask questions. We learnt we cannot talk with teachers because they are older than us and we cannot interrupt them (Student comment).

5.2.3 Resistance

(A) Prior to applying the cooperative learning method

Initially students resisted the idea of changing the traditional way of teaching. This type of teaching and learning has a long history in the Libyan education system and this traditional approach has been the norm for generations. The cooperative learning method was a new method of teaching for most of the students enrolled at Libyan business degree institution. Most students had previous experience in learning under the traditional method of teaching. Prior to the researcher starting work with the students, the students were worried about the new teaching method as they felt it may be too difficult for them. Consequently, students rejected the idea of changing their instructors and their style of learning. They were evidently worried by the change and thought the change might prove difficult for them. There is no quote provided regarding this aspect because no students came to the researcher and informed her personally of these concerns—the researcher heard about their apprehension from staff members.

(B) Applying cooperative learning method in classes

During the first lesson, the researcher explained to students the principles of the cooperative learning method, after which students agreed to participate in the study knowing that they were able to withdraw from the study if they did not feel comfortable. However, students who participated in this study appeared to be

pleased by the instructor applying a cooperative learning method in the classroom. The more cooperative learning method classes that students attended, the keener students were to embrace cooperative learning method. Students showed their interest in the cooperative learning method classes, as well displaying a heightened interest in studying accounting. Through the researcher reflections and students' comments, it appears that students are pleased with the changes in the teaching method:

> *at the beginning students rejected studying accounting, especially when they heard that the teacher came from Australia and wanted to apply a new method to them. But when I entered the classes and started to explain to students that the purpose of cooperative learning method is to help them to have a better understanding of the subject and to develop their skills to meet the requirements of their career, they changed their attitude and showed interest. At the end of the semester, they were upset because I would not be teaching them again (Researcher's comment).*
>
> *The last few weeks we were happy, because this was the first time I understand accounting (Student comment).*

Some other students wanted to major in accounting simply because they liked studying accounting in cooperative learning method classes. Relevant comments include:

> *I will major in accounting if all teachers would teach it in the same way (Student comment).*
>
> *I will major in accounting – you could complete your study and then come back to teach me in advanced courses (Student comment).*

Students' perceptions of learning accounting changed due to the implementation of the cooperative learning method. Students seemed to be positive about the new method of teaching, and were willing to engage and interact with others. Most students were optimistic about the cooperative learning method, and believed that it had opened their eyes more towards learning accounting. Furthermore, cooperative learning method changed their perception about the learning of accounting.

The following quotes summarise their ideas with regard to their perception of cooperative learning method:

> *I believe my perception about learning accounting has changed according to the way we [are] taught. Now I realise that there is a room for me and fellow students to work together and develop positive relationships among us in order to maximise learning. This is happening right now (Student comment).*
>
> *Before, what the teachers did was just memorize the material and come to tell us what they memorized. If I don't have to come to the lesson I will use that time to memorize as they do. Especially in accounting class, if I memorize the base, it's easy for me to answer the questions in the exam, so why did I attend? Now I find it different: coming to class helps practise accounting (Student comment).*

Other students generally agreed with the above comments and reiterated that they would find it difficult to go back to traditional teaching, arguing that students would no longer wish to listen to a continuous three hour lecture any more. Students asked the instructor to teach them again in other courses. The following reactions:

> *In the past, the teacher used examples very rarely when teaching. But, now, because of this new method [cooperative learning] that provides more discussions and examples, we feel that we can live in the situation, that we can remember things and understand the issues more easily (Student comment).*
>
> *When we were taught the last few topics [lessons on cooperative learning] in groups the teacher was helping us that I think was a very fine and interesting way of teaching ... we were able to know more about what was happening in the topic and ... more importantly we were able to make our own decisions which helped a lot to clear our doubts more freely (Student comment).*
>
> *They were very interesting lessons and the teacher was more relaxed. And we were more comfortable. We need you to teach us in following courses (Student comment).*
>
> *I feel more comfortable in small groups, in participating. Will you teach us next semester (Student comment).*

From the reflections of students in cooperative learning method classes, it is evident that students' perceptions of accounting had changed. Students were more positive about accounting and embraced the new idea of involvement in discussion rather than staying quiet during a three-hour class. Students were willing to participate in the discussion—a view supported by the following reflection:

> *I believe students' perceptions of accounting had changed. Students worked together and developed positive relationships. I see that they're interested (Researcher's comment).*

Students expressed their satisfaction with the cooperative learning method, indicating they have the opportunity to practise accounting and be cognisant of real life problems. Some of the quotes regarding the effectiveness of the cooperative learning method include:

> *I think it is a valuable way to teach accounting, because it provides us with real opportunities to practise accounting, not just do theory. I like the idea of you giving us roles as a father who has to pay all the household expenses; and we are the family members, and we request money from the father. That was wonderful (Student comment).*

> *The reason it helps us is that it connects our study to our social life problem. We feel as we are living in the situation we are studying (Student comment).*

Students believed that the cooperative learning method provided them with opportunities to help each other and to discuss issues in groups—options not available to them under the traditional teaching method of learning. In cooperative learning, students have the opportunity to explain difficult issues from their point of view. When students were asked what they thought about the cooperative learning method for learning accounting, their thoughts are illustrated by the following quotes:

> *I think because we help each other to learn. And we get chances to discuss and clarify things….(Student comment).*

> *…because through cooperative learning we will be able to learn from our discussions (Student comment).*

> *Sure, we can share our ideas and help those students who need help with completing the work. The other thing is the social skills that we learn by working with others. We can't get these skills if we work individually in a competitive environment (Student comment).*

Some students and the researcher were aware that a sudden change from one particular method to another would not be an easy task, but one that required a gradual introduction and the development of necessary skills.

The gradual introduction of aspects of cooperative learning method was raised and discussed during the implementation phase. As has been discussed in chapter 3 regarding the lesson plans, the instructor implemented the lessons by starting with simple tasks in very small groups (pairs); then gradually making the tasks more sophisticated and increasing the size of the groups. As a result, students seemed to grasp the basic ideas and principles of the cooperative learning method after a couple of lessons. No major problems with the implementation of those lessons were observed. Two of the students, and the researcher, felt that the sudden introduction of the cooperative learning method at business degree institution would not be a good idea. This is because students are already too established in a set stage of their learning. However, it would be more effective if it were introduced in schools; then the relevant skills could be gradually developed there before students reach university level. Students and the researcher argued this sequence would help students take it more seriously because they would have more time to think and develop the necessary skills for effective learning. The following comments were made by students regarding the importance of the gradual introduction of the cooperative learning method:

Some students are struggling to understand the objectives of skills they have to learn. Yes they found it good for their learning but still hard to develop the skills they need in order to apply group work. It needs time for them to learn this. One semester is not enough to learn all these skills (Student comment).

I think the introduction of cooperative learning method in schools would be a good idea (Student comment).

Actually we found it very interesting. But it would be better if we could start from school and continue through other grade levels (Student comment).

Summary

Students' perceptions of empowerment were low in existing teaching method at Libyan business degree institutions and before the implementation of the cooperative learning method in accounting classes. Although the researcher, as an instructor in these classes, feared that allowing student interaction, working in groups and providing opportunities for students to inquire might lead to some problems, in reality the students were generally very well behaved during the implementation of cooperative learning. Finally, the findings suggest that cooperative learning helps students to change their perceptions of learning accounting.

5.3 Learning issues

Learning issues related to questions posed by the researcher that emerged from qualitative data analysis were: students' empowerment in the classroom,

development of professional accounting competencies, and understanding of the content.

5.3.1 Students' perceptions of empowerment

(A) Prior to applying cooperative learning and during traditional teaching method classes

Students' empowerment in the learning of accounting is one of the issues that emerged from the qualitative data analysis and was, in fact, one of the major concerns of the researcher in this study. The majority of students perceived they were not empowered in the learning of accounting (although some students' perceptions differed from this). Students who believed they were not empowered had a variety of reasons for their stance. The following illustrate students' justifications for their feelings on not feeling empowered.

> *We have to be quiet for three hours (Student comment).*
>
> *Our teachers are always very strict and they do not like us to talk in class time (Student comment).*

Interestingly, some students indicated that they were not empowered to learn accounting because accounting is not a meaningful subject. Students feel an accounting course is not important for their career aspirations. They perceive accounting classes as boring and uninteresting and accounting to be a dull subject with uninspired instructors. Some students are bored because accounting is not their major and it is a 'numbers' subject. They hate attending accounting classes because they waste their time attending without acquiring any outcomes. The following comments reveal their views.

> *Accounting is a difficult subject to learn. We find it very hard to understand, because it is a 'numbers' subject. I like 'reading' subjects (Student comment).*
>
> *I have problem with zeros in accounting. I can understand it, but when I see zeros I lose what I understood (Student comment).*
>
> *Accounting is not our major – we do not know why we have to study it. I intend to study management – why do we have to study accounting (Student comment).*
>
> *Accounting teachers are very dry teachers – like their subject. Actually we are bored with this type of class (Student comment).*

The other reason raised by students for being not empowered to learn accounting is their competence. Most students do not participate actively because they feel shy; do not have enough confidence to participate in the classes; or are afraid of losing face if they say something wrong. Students in this environment were less empowered as they did not have the confidence to initiate and participate in discussion in the classroom, as confirmed by the following statements:

> *I do not like my fellow students to hear my voice – I feel my voice is too deep when I just talk in the class (Student comment).*
>
> *I am hesitant in my answers and I do not like to hear others' critiques. That is why I prefer to be quiet (Student comment).*
>
> *I am afraid that if I ask questions, the teacher and students will laugh (Student comment).*

> *… I am not an active student; I do not have the confidence to talk in classes!!!!!!! (Student comment).*

Only a few students felt empowered to learn accounting in the classroom. Some students voluntarily participated with the instructor. These students' perceptions were different from disempowered students. Pre researcher reflections and student comment were as follows:

> *A few students come to class highly motivated and interested in learning accounting. I can see their happy faces when they come to class. They participate without any fear (Researcher's comment)*

> *I like studying accounting. It is an interesting subject. I know I am different, because most students hate studying it. But for me it is a good subject. I have to attend class to listen what information the teacher will give us. I do not have to stay at home for long hours reading boring materials (i.e. management) (Student comment).*

(B) Applying the cooperative learning method in classes

In the few weeks following implementation of the cooperative learning method, students showed their interest and enjoyment in learning accounting. Students who attended cooperative learning method's classes had a better perception of empowerment. Students described cooperative learning method as 'amazing'. The cooperative learning method allowed students to apply their knowledge; and students in cooperative learning method classes felt it impacts on learning, makes the course more meaningful, and their competence improved. Interestingly, the majority of students' preferred method of learning accounting was the cooperative learning method. Post researcher reflections and some students' reactions include:

> *From reflections, I noticed more smiles in the classrooms. I noticed students enjoying themselves, and they learnt something. I saw much evidence of students' involvement in learning. What I saw in the classes I did not expect and I had not seen it before in accounting classes as instructor (Researcher's comment)*
>
> *[Cooperative learning method] is giving us time to prepare answers, and repeating answers make the class enjoyable (Students' comment).*
>
> *In these classes we do not have to be randomly chosen to answer the question before preparing it, which makes the class nice. I hate it when teachers choose me randomly – all the information in my mind suddenly goes…(Student comment).*
>
> *It is a great way of learning (Student comment).*

Notes from the reflections, as well those undertaken by the researcher in classrooms, revealed that students changed their behaviour in the classroom. That is, the cooperative learning method contributed to a more positive learning environment. Students in groups were active and participated with the instructor and peers. The instructor guided students to answer the problem raised and gave individual feedback to promote understanding. Students were pleased to be given the feedback to correct their misunderstanding. Post researcher reflections were:

> *I saw lot of students motivated and actively involved in discussion and in helping each other. Students were performing better, and were keen to take part in group activities. It makes the lesson interesting and creates a more positive learning environment (Researcher's comment).*

Likewise, students also conveyed their interest in learning accounting in cooperative learning method classes, which students felt made their accounting classes more meaningful and interesting. When students worked together in small groups and were involved in activities, they had a better understanding of the course content. Students felt the classes were important to them because the instructor dealt with them as a guide, not as a primary source of knowledge. Therefore, students felt the cooperative learning method increased their motivation and changed their perception of learning accounting. Relevant comments include:

> *I really enjoy attending accounting classes now. But before I felt it was boring (Student comment).*
>
> *Now I feel these classes are important for me. My fellow students and teacher hear me when I talk – even when I say something wrong. It is nice to be respected even if I say something wrong, and I learn from my wrong answers without my feelings being hurt (Student comment).*
>
> *I like accounting classes now. It is important to attend these classes, because the teacher always makes activities which help me to understand (Student comment).*
>
> *Before, I felt I was wasting my time by attending accounting classes. Because I read from the notes, I did not understand that much in class. But now it's different (Student comment).*
>
> *I can ask questions and sometimes answer peers' questions (Student comment).*

> *I can gain benefits if I attend. I learn a lot by practising accounting in each class, not just being a receptor of information (Student comment).*
>
> *It makes the class interesting (Student comment).*
>
> *We are busy all the time in the class. Time in class goes quickly without us realising it (Student comment).*

In cooperative learning method classes students feel confident and able to talk freely, which illustrates that they are competent and not too intimidated to express their views. However, students continue to lack confidence in performing tasks. Being secure in the group gave students some confidence in discussing the tasks in the classroom and helped improve interaction with other students. Thus, cooperative learning method classes improve students' confidence and communication skills and results in them being more empowered, as demonstrated by the following statements:

> *Now we do not have to be frightened about the task and the instructor. We can ask and clarify difficult issues (Student comment).*
>
> *When I stay with my peers in a group, they encourage me to talk in front of the classes and I feel my understanding is getting better for the materials being learnt (Student comment).*
>
> *Groups reduced my fear of the teacher and of my peers in discussion (Student comment).*
>
> *The security of the group was able to build our confidence (Student comment).*

5.3.2 Development of students' professional accounting competencies

(A) Prior to applying the cooperative learning method

When students were asked what skills they expected to develop in the semester, most students were surprised by these questions. They did not consider having to learn any new skills. Students thought teaching a specific skill was not an educational responsibility. Rather, they believe the home environment is responsible for developing some of these skills, other skills are acquired by instinct, and some students see them as a gift from God.

Some skills were seen by students as being needed to be learnt at home, for example, listening to each other, interpersonal skills, the ability to get along with other people, and waiting your turn. Students think they should learn all these skills before they go to school. Students commented as following:

> *We do not have to learn these skills in the university. These skills we have to learn at home. Or at least from primary schools. Universities are only for teaching the content of the subject and prepare us for jobs (Student comment).*

Some other skills were either completely unfamiliar to students, or students did not think they had to learn them. They tend to believe these skills are just theory, for example, problem solving, critical thinking, or team work:

> *What is this critical thinking – we have not heard about this before (Student comment).*

> *Have we to learn team work in accounting classes?!!!!!!!! I heard about this term in management (Student comment).*

Some skills are seen by students as being a God-given gift, for example, scheduling and planning, self management and organising time. A student's comment was:

> *I hear about these skills, but these skills are a gift from God to some people. We say a person is well organised – that means he or she is good at doing that (Student comment).*

(B) During applying cooperative learning and traditional teaching method classes

During classes the researcher, as an instructor, explained to students the meaning of these skills, why they should learn these skills, and why it is important for students to acquire them. Most students in both types of classes (cooperative learning and traditional teaching methods) began to familiarize themselves with these skills. Most of cooperative learning method's students gained knowledge of these skills, practised them in class, and developed them. After introducing the cooperative learning method, students' skills improved. Although traditional method students gained knowledge of these skills, they stated they did not learn these skills from classes. From researcher's reflections during applying the cooperative learning method students' social skills and communication skills had improved.

> *Students listen carefully to each other, wait their turn, and speak with some confidence (Researcher's comment)*

> *Now I know what critical thinking or problem solving mean. I want this skill, in order to be able to answer indirect questions and any problem met at*

work. I'm sorry to tell you that you did not teach us this skill (Student comment).

Now we know what you meant by critical thinking. If we have this skill we do not have to be worried about indirect questions. We can analyse any question and answer it. We didn't use to learn these kind of questions. Our teachers always gave us direct questions. They taught us what the exam would be like. We just have to memorize what they gave us before exam (Student comment).

Now I've learnt what teamwork means. Before, we heard about it as something we have to memorize (theory). Now, after practising it, we know what it is (Student comment).

Students communicated with peers to clarify difficult issues. In turn, participation in groups helped students to improve their communication skills, listening, speaking, and self-confidence.

5.3.3 Understanding

(A) Prior to applying cooperative learning and during traditional teaching method classes

The issue of learning for understanding was one of the main issues raised in the qualitative data collection. Students expressed their views and concerns with regard to learning accounting. Most students received private tuition while at school. They are worried that this service is not available at university. Some students indicated that they obtain help from private tutors; while others seek help from the instructor

after the lesson, or try to find help from a high achieving student or a relative who understands the discipline or issue:

> *...I always go to private tuition. But my problem now is that there is no private tuition at university level (Student comment).*
>
> *Our teachers do not like us to raise questions during the lesson. If we don't understand, we could ask them later after the class (Student comment).*
>
> *...sometimes I find good students to study together outside the class. If I stay with them, they do help me to understand (Student comment).*
>
> *...we cannot meet frequently to help each other, because there is a great distance between our homes (Student comment).*
>
> *My brother explains to me all accounting content later (Student comment).*

(B) During applying the cooperative learning method

After introducing the cooperative learning method, students were very keen to discuss issues in class. Reflections of the classroom suggest that when students work together during class, low achievers have a better understanding of the issues. The cooperative learning method helped most students to understand accounting concepts. Some students' comments were as follows:

> *Low achievers are gaining more information from their peers (Researcher's comment)*
>
> *These classes (cooperative learning) helped us to understand accounting concepts by discussing it with peers (Student comment).*

Yes, I feel I understand the matter discussed with peers very well (Student comment).

Face to face group activities helped us to understand thing easily and to retain it much longer (Student comment).

I agree. And I teach myself as well when I explain something to someone. This enhances my understanding as well (Student comment).

It serves to teach others but to teach myself as well (Student comment).

We understand the accounting more easily because we can explain to each other (Student comment).

Our understanding of accounting has improved since the group work was implemented (Student comment).

Investigating issues related to current practices in learning accounting at Libyan business-degree institutions is one of the objectives of this study. From the qualitative data analysis, it appears that students react positively to learning accounting in a cooperative learning environment. Most students agreed that the cooperative learning method is a beneficial method of learning in accounting courses. They also think learning would be more constructive under the cooperative learning method than under the traditional teaching method where they are expected to learn by rote, or to memorise. The following comments illustrate students' perceptions of how the cooperative learning method contributes to a better learning environment:

The information we have will stay longer than through the traditional method. In the traditional method, not even the information got to our mind (Student comment).

Sometimes it's easier to understand it from peers than to have the idea from the teacher (Student comment).

Usually I get bored in accounting class, because I cannot understand it at all in the class, but now I feel it's easy to study accounting (Student comment).

It's easy to talk with the teacher and ask questions (Student comment).

A few students had different ideas: they preferred the traditional method in learning accounting as they felt it was easier and prevented classmates 'pilfering' their efforts. They also perceived that when the instructor allows students to participate it means he or she is not qualified or sufficiently knowledgeable about the course content. This group of students believe they will not learn from this style of teaching and it is simply wasting their time. Their reactions are supported by the following statements:

I don't really like this kind of teaching. I feel our teacher does have a lack of information; she did not prepare for the lesson; and wants us to explain it to each other (Student comment).

I feel my peers 'pinch' my effort. I study hard and they have it easy (Student comment).

We waste time by attending these classes (Student comment).

I like the method we used before, rather than this method of teaching, because the teacher explains everything for us and that makes our life easier. But here we have to work hard in the class to understand (Student comment).

It takes good students' effort (Student comment).

It may be a bit difficult to implement for us; we need to be educated from schools about it. Also, it takes good students' effort (Student comment).

Summary

The findings shared in this chapter relate to teaching and learning issues. These findings suggest that students' perceptions of empowerment and the professional accounting competencies have increased after the implementation of the cooperative learning method in accounting classes. After the implementation of the cooperative learning method appeared that approximately %70 of students has positive attitudes about the cooperative learning method including improved of professional accounting competencies in helping each other, and the skills in working with low-achieving students.

5.4 Conclusion

The analysing of qualitative data provided insights to the research question put forward in this study. The research questions was '*What are the effects of a cooperative learning (CL) environment compared with a traditional teaching environment (TM) on students' perceptions of empowerment, and the development of professional accounting competencies based on students' perceptions and written exams in Libya?'*

These findings suggest that most students in the experiment taught under the traditional teaching method (where students sit quietly and pay attention to their

instructors without any interaction among themselves or between them and their instructors) focused on transferring information from teachers to students through direct explanation. Thus, in their initial perception of empowerment they perceived the traditional teaching method as disempowering. Also, students in the experiment were not familiar with professional accounting competencies terminology.

The findings also revealed that students' perceptions of empowerment and professional accounting competencies increased after the cooperative learning method was applied in accounting classes. Applying the cooperative learning method in accounting classes resulted in changed student perceptions of empowerment and development of professional accounting competencies; and provided students with greater opportunities to learn accounting concepts more meaningfully. Hence, the cooperative learning method emerged as most students' preferred method of learning accounting and helps to empower students and develop their perceptions of professional accounting competencies in accounting classes.

Furthermore, the Libyan culture, which is based on Islamic cooperative principles, clashes with an education system culture based on individualistic or competitive values but more closely reflects the ethos of cooperative learning method. Finally, it appears that students' understanding was a dominant factor in cooperative learning method's groups' success because of a lack of accounting knowledge among students—even though students had studied accounting before coming to university.

Although the researcher, as an instructor in accounting classes before the experiment, feared that student interaction, allowing students to work with each other and providing opportunities for students to question might lead to some problems. In fact, the researcher's perception suggest that students were generally

very well-behaved during the implementation of the cooperative learning method and indicated that the cooperative learning method is more effective teaching method than the traditional teaching method in helping students to be empowered, develop professional accounting competencies and learning accounting.

CHAPTER SIX

DISCUSSION

CHAPTER SIX: DISCUSSION

6.1 Introduction

This chapter discusses the research findings with reference to the research question and the existing literature used to inform the research. The research question presented in this study is:

> *'What are the effects of a cooperative learning (CL) environment compared with a traditional teaching environment (TM) on students' perceptions of empowerment, the development of professional accounting competencies based on students' perceptions, and written exams in Libya?'*

The findings of the qualitative data analysis support the results from the quantitative data analysis. The quantitative findings reported in this study are based on two issues: the effect of cooperative learning method on students' perceptions of empowerment; and the development of professional accounting competencies. The quantitative findings reported in this study are based on four hypotheses as follows:

> H1: There is a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness, and competences) between students who were taught using a cooperative learning environment and those who were taught using the traditional teaching method.

> H2: There is a significant difference in students' perceptions of the development of professional accounting competencies between students who were taught using a cooperative learning environment compared to those who were taught using the traditional teaching method.

H3: There is a significant difference in students' professional accounting competencies based on written exams between students who were taught using a cooperative learning environment and those who were taught using the traditional teaching method.

H4: There are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams.

As indicated earlier (see chapters 1 and 2), this study was designed to trial a cooperative learning method in Libyan business degree institution and explore its effect on students' perceptions of empowerment and the professional accounting competencies based on students' perceptions and written exams.

The findings from this study reveal that students who worked in the cooperative learning method classes had greater perceptions of empowerment than those students who attended the traditional teaching method classes. Furthermore, the findings demonstrate that students who attended the cooperative learning method classes displayed higher levels of professional accounting competencies than students who attended traditional teaching method classes. Also, participants were very positive about the implementation of the cooperative learning method, and the overwhelming majority of them perceived it as an effective method of teaching and learning accounting.

This section discusses the research findings in relation to the existing literature and the research question central to this study. Specific findings related to each of the research hypotheses to answer the above research question are supported by

qualitative data and discussed in the following sections with reference to the existing literature.

6.2 Discussion of major findings

The goal of the present research was to gain a clearer understanding of the effects of cooperative learning method on students' perceptions of empowerment and development of professional accounting competencies. Based on the conceptualizations of learner empowerment by Frymier, Shulman and House (1996) and situational interest for accounting education literature and cooperative learning literature, four hypotheses were formulated.

The students' perceptions of empowerment are discussed next.

6.2.1 The students' perceptions of empowerment

Hypothesis 1 asserted that there would be a significant difference in students' perceptions of empowerment and its dimensions (impact, meaningfulness and competences) among students who were taught using a cooperative learning environment compared to those who were taught using the traditional teaching method. The quantitative data from the post Learner Empowerment Scale shows that students taught in a cooperative learning environment had significantly higher perceptions of empowerment and its dimensions (impact, meaningfulness) than students taught using the traditional teaching method. Interestingly, there was no significant difference between groups in competence as an empowerment dimension.

The results, based on the pre Learner Empowerment Scale using means and t-test, indicate that there is no significant difference between students in their perceptions

of empowerment. The findings of this study from the qualitative data suggest that the traditional teaching method based on the transmission of information from instructors to students through direct explanation with disempowered students was the dominant method of teaching employed by instructors in the Libyan education system and in Libyan business degree institution. Also, analysis of the qualitative data indicates students perceived they do not have any impact in the classroom. Specifically, instructors did not allow students to clarify difficult issues; instructors were dominant in the class sessions; and they ignored students' questions in the classroom. Only instructors had the right to talk or give opportunities to selected students to talk in the class. Students could not influence the instructor; and instructors would acknowledge some good questions, whilst ignoring all other questions. Overall, instructors believe opening up discussion with students is exceedingly time-consuming; that student participation is not considered important for success in class; and students feel their views are not valued in the classroom as evidenced by the following comments from students:

> *We have to be quiet for three hours; only the teacher and some particular students (good achievers) could talk in the class (Student comment).*
>
> *… I am afraid that, if I ask questions, the teacher and students will laugh (Student comment).*

Instructors using the traditional teaching method did not give students opportunities to ask questions in the classroom, or to answer or clarify difficult issues. Instructors felt learning occurred when the explanation was offered to a classroom of quiet and acquiescent students. Most students could not ask questions even if they wanted to. Essentially, students are discouraged from inquiring; and the accepted school culture is that students sit quietly and do not inquire during classes. Thus, they do not have

the power to contribute to creating a supportive learning environment, or have an opportunity to contribute to the learning of others in the classroom. This finding is supported by Ahmad and Gao (2004) who concluded that the Libyan accounting education curriculum and its teaching method are traditional. The following comments from participants support their views in this regard:

> *We cannot share our ideas with peers and we cannot ask them if we want to clarify something. Sometimes we can understand things more clearly from each other, but we don't have a chance to do so in the classroom (Student comment).*
>
> *We have learned from primary school and from home, that it is not polite to disturb older people or to take their job. We have to respect older people: what they say and do (Student comment).*

In the current method of teaching (traditional teaching method), students sit in rows and the lecturer stands in front of the class near the board and explains the course content. This type of teaching method reflects on empowerment. Through the researcher's reflections in the traditional teaching method classes, students sat quietly—it looked like they had come to class just to gain marks for participation. Pre researcher reflection was:

> *Students sat quietly, not paying attention to the teacher's explanation. The researcher observed the signs of boredom and of no interest from students to learn (Researcher's comment).*

Although students felt disempowered in the classes, students initially resisted the idea of changing the way of teaching and learning. Prior to the researcher commencing work with students, students were worried about applying the

cooperative learning method. As a result students rejected the idea of changing their learning style.

Also, the researcher thought it may be more difficult to implement cooperative learning method, especially in environments like Libya where cooperative learning method have not been implemented before, and students had very limited knowledge about cooperative learning method prior to implementation. However, the effectiveness of the cooperative learning method on student learning counter the difficulties that hinder the implementation of the cooperative learning method. As indicated previously, the cooperative learning method appears to improve student achievement, enhance social skills and peer relationships, and increase students' motivation to learn (Johnson & Johnson 1994, 2005). The findings of this study support many of the proven benefits of the cooperative learning method, and suggest that the cooperative learning method has had a positive effect on students' learning of accounting. It was evident that students in this study were enthusiastic about working in groups and helping one another to learn accounting. One of the comments made by a student with regard to the effectiveness of cooperative learning method clearly supports this view:

> *The reason it helps us is that it connects our study to our social life problem. We feel as we are living in the situation we are studying (Student comment).*

The findings from post Learner Empowerment Scale responders support the finding above in relation to students' changed behaviour and their willingness to work in the new classroom setting. The results from Post Learner Empowerment Scale using t-tests indicates that, students in cooperative learning method classes are more empowered than students in traditional teaching method classes—the difference being attributed to the teaching method used. Even Libyan students educated in very

traditional classes where teachers have all the rights and students have to sit quietly in the classroom benefited from cooperative learning method's classes. These results supported by Hwang, Lui and Tong (2005, 2008). Cooperative learning method students showed their interest in learning and participated actively in cooperative learning method classes.

There were significant differences in students' perceptions of empowerment and its dimensions (impact and meaningfulness). This result is attributed to the fact that the cooperative learning method gives students the power to have an impact on learning in the classroom and they find learning is more meaningful. This result may be attributed to the immediate effect of the teaching method on changing students' perceptions of impact and meaningfulness, and overall scale (empowerment). This finding supports that of Opdecam et al. (2012), who implemented a cooperative learning method in first year accounting students and found students reacted positively towards cooperative learning method. They stated that: 'students in cooperative learning method's activities had a positive learning experience and worked hard during the semester'. Likewise, they also found that students felt cooperative learning method increased their motivation, which is a kind of empowerment, and changed their perceptions of learning accounting. Furthermore, studies by Ballantine and Larres (2009; 2007b) and Farrell and Farrell (2008) support the findings of the present study, illustrating that the cooperative learning method in small groups provides students with greater empowerment and opportunities to learn accounting.

The results above support qualitatively, as well as by using the cooperative learning method in accounting classes, the view that students can experience a positive impact on their learning. The cooperative learning method provides students with

opportunities to ask questions and clarify tasks. Additionally, students experience a good relationship with the instructor and feel more appreciated in cooperative learning method classes. The following is one comment in relation to this aspect:

> *Our teacher did not mock our talking when we said something wrong (Student comment).*

From students' comments it appears that the changed classroom practice had a significant impact on students' perceptions of empowerment and the way they approached learning. The findings suggest that almost all students felt real pleasure from working in group activities, and looked forward to cooperative learning method activities.

During implementation of the cooperative learning method, clearly there were more inquiries from students. Researcher reflections on the cooperative learning method classes indicate that students were very cooperative and keen to encourage dialogue when there were class discussions; and female students were more cooperative than male students. These results supported by Opdecam and Everaert (2012) Opdecam, Everaert, Van Keer and Buysschaert 2012. Students felt more comfortable in cooperative learning method classes which enabled enquiry; and they liked the idea of practising accounting by participating in the activities to reach the correct answer. Researcher's reflections and students comments were:

> *Students want more inquiry activities and discussions. I am surprised how students suddenly changed their behaviour. Female students were working very hard—I was impressed by them (Researcher's comment)*

> *I learnt I need to be quiet in the class. It was only the teacher who had the right to talk in the class—also some particular students. But now it's*

> *different: all of us can talk and ask questions without any fears (Student comment).*

Students particularly noted the social benefits of working in groups. They also reported greater empowerment and more positive attitudes towards accounting. The result of greater empowerment and positive attitudes towards accounting are supported by the researcher's classroom reflections of the cooperative behaviours of students while working. The researcher's classroom reflections of lessons during implementation of cooperative learning method confirmed that students were empowered and displayed a willingness to be involved and share and discuss ideas in learning activities in the classrooms. The changes in classroom practice appear to have influenced students' perception of traditional teaching methods which have been part of their classroom practice for many years. Regardless of their personal attitudes toward the implementation of the new method before the experiment, students believed that cooperative learning method experiences had a positive impact on their learning and on their perceptions towards the content, instructor and activities in the classroom. Students indicated they were more empowered toward learning accounting when using the cooperative learning method than when using the traditional teaching method. The following quote clearly shows their reactions to the implementation of cooperative learning method and how it changed their perceptions about teaching and learning of accounting:

> *I think my perception about learning accounting is different now. Now I realise that there is a freedom for us as students to work together and build up positive relationships to promote our learning and develop our skills. And I more motivated to learn accounting (Student comment).*

It was obvious that students were generally keen to work in their groups and assume their roles, and were careful to make sure all group members contributed. They expressed strong feelings for group work and it emerged that this was more attractive to them than working individually. Further, classroom reflections suggest that students felt that learning was more interesting when they were in groups and it was 'less boring' than sitting and listening to their teachers for the whole three hour period. The great majority of students reacted positively to the cooperative learning method, obviously indicating the effects of the cooperative learning method on their attitudes toward learning accounting. The following is one of the comments made with regard to their preferred method of learning after the applied cooperative learning method:

> *They were very interesting lessons and you were more relaxed. And we were more comfortable. We need you to teach us in following courses (Student comment).*

However, there was no similar significance with competence as one dimension of empowerment. The cooperative learning method does not have an immediate effect on students' ability to perform the tasks (competence) in the classroom. This result is attributed to the capability differences and individual differences in students. Competence is not easy to change since competence needs to be learned gradually.

The above discussion strongly suggests that the cooperative learning method had positive effects on perceptions of teaching and learning accounting as an alternative teaching method in accounting. Thus, these results point to greater perceptions of empowerment.

Although the participants of the present study reported feeling empowered and welcomed cooperative learning method, the findings also suggest the need for gradual implementation of the cooperative learning method in order to gain expert skills from the experience, as commented on by some students. One of the comments with regard to this aspect is as follows:

> *Actually we found it very interesting. But it would be very efficient if we could start from school and continue through other grade levels (Student comment).*

Furthermore, a small number of students did not like the cooperative learning method—they felt that in this environment the instructor did not make any effort to teach; and low achievers receive the information without any effort. One student commented:

> *We waste our time by attending these classes, where all the students in the class talk to each other. We have to teach them if they don't know. We work at home before classes and they just take it (Student comment).*

Based on the above discussions, it seems reasonable to hypothesise that the effectiveness of the cooperative learning method increased students' perceptions of empowerment to learn accounting after implementation of cooperative learning method. It is also reasonable to hypothesise that students' perceptions of empowerment in learning accounting tended to change, and was influenced by the teaching method used. The findings of the present study discussed above support hypotheses 1.

The development of professional accounting competencies will be discussed next.

6.2.2 The development of professional accounting competencies

As mentioned in Chapter One, advocates of accounting education and Libyan accounting education have raised their voices about the need to prepare students for a future career equipped with professional accounting competencies; and are concerned about students' inability to apply school knowledge and skills to real-life problems in workplace situations. The students' failure to meet such expectations should not be surprising since traditional teaching practices in Libya have not required the application of knowledge in new settings. As mentioned earlier in Chapters One and Two, teaching and learning practices in the Libyan education system are based on a tradition where students rote memorise for examinations, which leads to little long-term retention of what was learnt.

In the pre survey, the reliability of the professional accounting competencies scale was very low. This showed that students have misconceptions about professional accounting competencies. When students were asked what skills they expected to develop in the semester, most students were surprised by these questions. This result is supported qualitatively as well. Students did not consider having to learn any new skills; and consider teaching to be a specific skill, not an educational responsibility. Furthermore, they believe the home environment is responsible for some of these skills; that other skills are acquired by instinct; and some students see these skills as a gift from God. This finding is supported by Ahmad and Gao (2004) who concluded in their study that Libyan accounting education teaching methods are traditional and do not offer a foundation in professional accounting competencies. Also, Kavanagh and Drennan (2007) state that current teaching methods (traditional teaching method) place little emphasis on development of students' professional accounting competencies. There were some skills the students did not wish to debate

or examine. These particular skills were seen by students as being needed to be learnt at home, for example, listening to each other, interpersonal skills, the ability to get along with other people, and waiting your turn. Students felt all these skills should be learned before they go to school. Students commented on this aspect as follows:

> *We do not have to learn these skills in the university. These skills we have to learn at home. Or at least from primary schools. Universities are only for teaching the content of the subject and prepare us for jobs (Student comment).*

Some other skills were either completely unfamiliar to students, or students did not think they had to learn them. They tend to believe these skills to be just theory, for example, problem solving, critical thinking, or team work:

> *Have we to learn team work in accounting classes?!!!!!!!! I heard about this term in management (Student comment).*

Some skills are seen by students as being a God-given gift, for example, scheduling and planning, self-management, and organising time. A student's comment was:

> *I hear about these skills, but these skills are a gift from God to some people. We say a person is well organised—that means he or she is good at doing that (Student comment).*

During classes the researcher, as an instructor, explained to students the meaning of these skills, why they should learn these skills, and why it is important for students to acquire them. Most students in both types of classes (cooperative learning and traditional teaching methods) began to familiarize themselves with these skills. Most cooperative learning method students gained knowledge of these skills, practised them in class, and developed them. After introducing the cooperative learning

method, students' skills improved. Although the traditional teaching method students gained knowledge of these skills, they stated they did not learn these skills from classes. Researcher reflections during the cooperative learning method classes indicated that students' social skills and communication skills had improved, as evidenced by the following comment:

> *Students listen carefully to each other, wait their turn, and speak with some confidence (Researcher's comment)*

Students communicated with their peers to clarify difficult issues. In turn, participation in groups helped students to improve their communication skills, listening, speaking, and self-confidence.

After the implementation of the cooperative learning method, hypothesis 2 was supported. Hypothesis 2 proposed that there would be a significant difference in students' perceptions of the development of professional accounting competencies between students who were taught in cooperative learning environment compared to those taught using the traditional teaching method. The quantitative data shows that students who worked cooperatively in the classroom had higher perceptions of the development of professional accounting competencies than students who studied in traditional classes. The relationship seems to come from the degree of impact in learning that the student perceives they have on the class discussion when they work cooperatively.

It is complex to compare the findings of the current study with those reported in other studies in the accounting literature because of differences in data collection design and the level at which the studies are undertaken. Notwithstanding these differences, there are some similarities between the responses given in the current

study and those cited in the accounting literature. In agreement with the findings of Ballantine and Larres (2009; 2007b) and Farrell and Farrell (2008), the present study shows that the cooperative learning method is a more effective method for delivering interpersonal and communication skills at university level. Also, this result is in line with Opdecam, Evelien and Everaert (2012) who stated that cooperative learning increases professional accounting competencies (problem solving, analytical, team work and planning) and may help improve students' interpersonal skills since communication and group interactive skills are often fostered in this learning environment. Furthermore, from the qualitative data students expressed their appreciation for cooperative learning and believed that this new method of learning would help them to develop social skills and improve their communication more than the previous methods they had been exposed to in the teaching of accounting. One student stated:

> *Now I've learnt what teamwork means. Before, we heard about it as something we have to memorize (theory). Now, after practising it, we know what it is (Student comment).*

It would appear that students in the cooperative learning method group are equally positive that their professional accounting competencies have improved as a consequence of working in cooperative learning method classes. The responses are encouraging as they would appear to demonstrate that students found the cooperative learning method beneficial in terms of developing a number of skills which are viewed as necessary for a successful career in accountancy. In addition, the relationship and communication between the instructor and students appears to have improved as a result of the cooperative learning method.

Hypothesis 3 asserted that there would be a significant difference in students' professional accounting competencies based on the written exams between students who were taught in a cooperative learning environment to those taught using the traditional teaching method. Based on post written exam 1, hypothesis 3 is rejected since there is no significant difference between students in different groups in their professional accounting competencies based on written exams 1. However, from the results based on post written exam 2, hypothesis 3 is supported. The results using t-tests indicated that there are significant differences between students in different groups in their professional accounting competencies based on written exams. Student who worked cooperatively in classroom displayed enhanced development of professional accounting competencies based on written exams compared to students who studied in traditional classes.

The findings suggest a passive learning practice existed across Libyan business degree institutions before the implementation of cooperative learning method. This was a concern for many students who sought regular help from private tutors to learn and understand the knowledge being taught by their school teachers. Most of the students who were expressed themselves attended tuition classes to obtain help and assistance with their learning. The findings suggest that these students used private tuition as a medium to clarify the knowledge that they did not understand at school. The tradition of learning helped via tuition is believed to be very common in the Libyan education system as one of the students stated that:

> *...I always go to private tuition. But my problem now is that there is no private tuition at university level (Student comment).*

The results from quantitative data analysis show there is no significant difference between groups in post test written exam 1 (Post written exam 1 was after just 6

weeks). These results support Clinton and Kohlmeyer's (2005) results which found no differential effect in group quizzes between students taught in cooperative learning method classes and students taught in traditional teaching method classes. These results may be attributed to the effect of prior academic achievement and group formation on performance (Van der Laan Smith & Spindle 2007) or the period of implantation of cooperative learning method. This result is accepted by the researcher because, from the researcher's experience, students perform better and learn more for the final exam than the mid semester exam.

Moreover, from the qualitative data analysis it appears that some students prefer to attend private classes to increase their performance in the examinations. They feel they would improve their knowledge by pursuing help from private classes. The students' preference for private classes can be viewed in two ways. First, a majority of students do not understand concepts from direct instruction and explanations by teachers in the classroom. Secondly, as mentioned previously, sending students to private lessons is very common in Libyan culture. Libyan families believe that private lessons enhance students' performance in their exams.

Whatever the reason, before the implementation most of the students preferred the methods used by their private tutors to learn accounting—which involved small group discussion and peer help. Some students indicated that they sought their tutor's help if they did not understand something in class and others either sought help from their teachers, their peers or a relative after class. As has been indicated previously, students appear to learn best when they are actively involved in the process of learning. The review of literature on the cooperative learning method suggests that students working in small groups tend to learn more of what is taught and retain it for longer than when the same content is presented through competitive

or individualistic learning methods (Brown & Thomson 2000; Johnson & Johnson 1994, 2005). Commonly, students perform better in the exam when they obtain help from more than one teacher.

From quantitative data analysis based on post written exam 2, the results are different from post written exam 1; however, they support qualitative data analysis. Based on post written exam 2, there are significant differences between students in different groups in their professional accounting competencies based on written exams. Student who worked cooperatively in the classroom had higher perceptions of the development of professional accounting competencies based on written exams than students who studied in traditional teaching method classes. This result supports the expectation of the researcher that students perform better in the final exam than the mid semester exam. This result is also supported by qualitative data analysis that shows students prefer studying in small groups with their peers in private lessons. Students preferred the cooperative learning method and they thought it to be similar to their private lessons where students can stay and discuss the content with their instructors without reservation. Students also believe that they will retain concepts and theories discussed with their peers for much longer. A student commented in this regard as follows:

> *Face to face group activities helped us to understand thing easily and to retain it much longer (Student comment).*

The constructivist ideas about learning discussed in this section offer insights for teachers who teach accounting for understanding. Cooperative learning method based on small group interaction and discussion appears to be one of the most common implementations of the constructivist approach. As has been mentioned, through cooperative learning method knowledge can be constructed by generating

ideas and building upon these ideas through discussion. Therefore, it is important that educators include such cooperative learning method classroom activities for students to learn and understand accounting more meaningfully; and perhaps help retain the learned knowledge for longer periods of time—enabling students to apply the knowledge and skills when they graduate. The findings reveal that the students who worked together during the implementation of the cooperative learning method appeared satisfied with the cooperative learning method in their learning of accounting.

It was also observed that there were changes in classroom behaviour, such as improved student involvement in learning and greater opportunities for interaction and discussion amongst individual group members. Students expressed their appreciation of the cooperative learning method and believed that this new method of learning would help them to understand accounting concepts more easily than previous methods used to teach accounting. One student stated:

> *These classes (cooperative learning method) helped us to understand accounting concepts by discussing it with peers (Students' comment).*

This statement indicates how their perceptions of teaching and learning of accounting changed during the implementation of the cooperative learning method. Students also acknowledged the benefits of the cooperative learning method and how it helped them to more meaningfully learn accounting and understand the concepts. Students shared this view, with one stating:

> *I was afraid if I ask questions, the teacher and the students would laugh. But now I can ask whatever I like, and this makes me more able to understand (Student comment).* .

These findings of this study support the view of constructivism and social interdependence theories. As constructivism suggests, knowledge is constructed and made meaningful through an individual's interactions and analysis of the environment. Additionally, social interdependence theory suggests individuals are open to the influence of others and are willing to exert influence on their collaborators. social interdependence theory exists when individuals share similar purposes for a task; success is also shared and relies on others' actions (Johnson & Johnson 2005). Consequently, students must be given opportunities to construct knowledge themselves so that they can develop a sophisticated appreciation of the nature and limitations of knowledge and understand the extent to which knowledge is social construction that reflects the social, political and cultural context in which it is formulated (Sapon-Shevin & Schniedewind 1991). Actively involved students in the learning environment means students are able to understand the course content and enjoy learning, and also learn to think in an effective way.

The relationship between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams will be discussed next.

6.2.3 The relationship between students' perceptions of empowerment and the development of professional accounting competencies

Hypothesis 4 proposed that there are positive relationships between students' perceptions of empowerment and the development of professional accounting competencies based on students' perceptions, and written exams. The support came from the strong positive correlations achieved between the development of Professional Accounting Competencies Scale and the Learner Empowerment Scale,

and students' professional accounting competencies based on written exams. Therefore, the development of professional accounting competencies based on students' perceptions and written exams are strongly influenced by students' perceptions of empowerment. Despite the students' faith in the effectiveness of the cooperative learning method and its benefits to their learning, the researcher's concerns in respect of the effectiveness of the method to teach all accounting topics was raised. It was argued that the nature of accounting topics/syllabus requires varied techniques for delivery, so perhaps cooperative learning method would be more effective for those topics that require statistics and data analysis. However, it was evident from the data that students preferred the cooperative learning method and believed in the effectiveness of the method with their learning, a view supported by the following statement:

> *The reason it helps us is that it connects our study to our social life problem. We feel as if we are living in the situation we are studying (Student comment).*

The next section provides an overall summary of this chapter.

6.3 Summary

From the discussions presented in this section, it appears that, students' perceptions of empowerment and development of professional accounting competencies in learning accounting can be enhanced. The use of the cooperative learning method to foster student interaction and classroom discussion activities through small groups has been helpful in increasing students' perceptions of empowerment and development of professional accounting competencies. The process of engagement in learning and peer assistance supported those students who were undergoing motivational struggles, as well as those who were engaged in learning. Applying the

cooperative learning method in accounting classes appears to be essential because there are increasing perceptions of empowerment and professional accounting competencies and students are more interested in learning accounting. Furthermore, there is the growing realisation that students' learning can be promoted through greater use of the cooperative learning method (Johnson & Johnson 2005; Johnson, Johnson & Roseth 2010).

As has been indicated, the success of the cooperative learning method is dependent on how well the basic elements are conducted and achieved. The basic elements of the cooperative learning method were applied during the implementation of the cooperative learning method (see Chapters Two and Three). This included positive interdependence, face-to-face interaction, individual accountability, interpersonal and small group skills, and group processing (Johnson & Johnson 1989, 2005).

First, positive interdependence was achieved through mutual goals, shared resources, and group communication. Mutual goals for group members were specified during the implementation of each lesson in respective classes at Libyan business degree institution.

The resources such as answer sheets, copies of financial statements and other materials were shared by all students during the group activities. Communication amongst group members played an important role in effectively achieving group goals. Communication was encouraged as group members tried to establish ways to improve their team effort and to understand what they were doing well. Communication was essential for various types of interactions and different patterns of interdependence.

Second, face-to-face interaction was an important element of cooperative learning method. The researcher managed to provide face-to-face interaction because it was necessary for students to sit face-to-face when engaging in group tasks (Johnson & Johnson 1989, 2007). At the beginning of cooperative learning method implementation the researcher arranged the classroom and explained to the students the objectives regarding classroom arrangements. After a few lessons the students themselves stayed in their locations in groups without any specific instruction from the researcher.

Third, various methods were used to assess students' individual accountability, including peer reflection forms and constant monitoring throughout the implementation. The most effective form of accountability was through the peer reflection forms, which highlighted individual members' roles. According to Johnson, Johnson and Holubec (1993) individual members of the group are accountable for contributing his or her fair share to the group's efforts to achieve group goals (Johnson & Johnson 2005). Instructor engagement in the group discussions and the constant monitoring and feedback also helped achieve accountability.

Fourth, as has been indicated, interpersonal and small group skills were taught including effective communication, leadership, decision making and encouragement to students; and they were reminded to utilise them in each lesson during the course of the experiment. These skills were utilised through class activities and it was evident from their comments that peer help, encouragement, team work, effective communication, etc. were important skills gained from the cooperative learning method.

Finally, students in this study achieved group processing through class activities. The reinforcement strategies during the group activities and peer reflection after each lesson appeared supportive in achieving the group processing. Peer reflection after each lesson served as an opportunity for students to give feedback on the lesson's events and, therefore, also served as a means of accountability.

As has been indicated, the main objective of this study is to explore the effect of the cooperative learning method in students' perceptions of empowerment and the development of professional accounting competencies in teaching and learning of accounting in the Libyan education system. The cooperative learning method promotes teaching and learning accounting at Libyan business degree institution. The participants of this study at Libyan business degree institution have contributed to the research hypotheses discussed above. These research hypotheses and the significance of their associated findings in the present study have been identified and discussed with reference to existing literature and studies undertaken in related fields.

6.3. Conclusion

This chapter discussed the research findings identified from the processes of quantitative and qualitative data analysis presented in Chapters Four and Five. The discussions of the findings shared in this chapter include students' perceptions of empowerment, and development of professional accounting competencies.

The discussions of the quantitative and qualitative data analysis provided insights into the research question put forward in this study. It also helped answer the research question with reference to existing literature and research studies undertaken in related areas of the present study. The research question was '*What*

are the effects of a cooperative learning (CL) environment compared with traditional teaching environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exams in Libya?'.

The next chapter will provide an overview of the research presented in this thesis, research implications, limitations, recommendations and, finally, introduce areas for future investigation.

CHAPTER SEVEN

CONCLUSIONS

CHAPTER SEVEN: CONCLUSIONS

7.1 Introduction

This study was designed to examine the effect of a cooperative learning method on students' perceptions of empowerment and the development of professional accounting competencies at Libyan business degree institution. Chapters 4, 5 and 6 presented the quantitative and qualitative data analyses and discussion respectively. It is anticipated that the findings will result in recommendations for appropriate practical change for the long-term benefit of present and future generations of Libyan accounting researchers and educators, accounting students, and accounting practitioners. The next section of this chapter outlines the major findings of the study.

Current understanding of the effects of cooperative learning method differs somewhat in different levels of study. In this context, the effects of the cooperative learning method on students' perceptions of the course, achievement, learning outcomes in primary and secondary schools are discussed widely in the literature, but there is scant research on the effect of the cooperative learning method on students' perceptions of empowerment and the development of professional accounting competencies in accounting classes at university level. Thus, this study aimed to explore the effect of the cooperative learning method on students' perceptions of empowerment and enhance the teaching and learning of accounting by investigating current teaching and learning and conduct a trial in cooperative learning method at Libyan business degree institution to help students feel empowered, and develop their professional accounting competencies while learning accounting.

Consequently, the research question was, '*What are the effects of a cooperative learning (CL) environment compared with traditional teaching environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exams in Libya?'*. The research issue was addressed quantitatively and qualitatively and included student survey, pre and post written exams, and reflections. The conclusions related to this research issue are discussed next.

The experiment in this study was conducted over a period of three months and involved 288 students from Libyan business degree institution (see Chapter Four). The following sections of this final chapter review the research findings of the present study, and outline and examine the research implications, contributions, limitations and recommendations. Suggestions for further research are presented and the chapter concludes with some final thoughts about this study.

7.2 Summary of Research Findings

Chapters 4 and 5 presented the quantitative and qualitative research findings. During a three-month engagement with the accounting students at Libyan business degree institution in which pre and post survey and written exams were conducted, supplemented by reflections, this study revealed the following findings that were consistent across data sources and confirmed by the participants.

Discussion of learning issues prior to the study reveal a lack of empowerment among students in learning accounting due to the traditional teaching method. The traditional teaching method appears to have affected students' ability to understand the discipline content, and apply their university knowledge to real life situations. One possible explanation for this apparent lack of empowerment in learning

accounting is a lack of student involvement in learning and limited interactions between students and their instructors in the classroom. Whatever the reasons behind their lack of empowerment, it appears that student participation in classroom activities and their interest in learning accounting improved after implementation of the cooperative learning method. The changed classroom behaviours of students toward the learning of accounting were evident and reported by both students and researcher in this study. The findings of this research are very interesting for a number of reasons.

The educational environment significantly affects the degree to which students feel empowered in the classroom. Within the same group (Libyan students), students' levels of empowerment were impacted by the method by which they were being taught. Therefore, this research indicates that it is not only the content of a course but also the method by which it is delivered that may impact on students' level of empowerment and, subsequently, their satisfaction with the learning experience. In cooperative learning method's classes the researcher observed that students are more empowered than students in traditional teaching method's classes. This view is supported by both the quantitative and qualitative data. The quantitative data shows that there is a significant difference in students' perceptions of empowerment and its dimensions between students taught using the cooperative learning method and those taught using traditional teaching method. Students who worked in cooperative learning method classes had higher perceptions of empowerment than students in traditional classes. The difference seems to come from the degree of impact that the student perceives they have on the class discussion based on which classroom setting the student was in. The teaching methods obviously have varying influences on students' perceptions of empowerment and its dimensions. Qualitative data also

showed that students perceive they have an impact when they participate cooperatively in groups in cooperative learning method activities more than in traditional teaching method's classrooms—where students work individually.

The results, based on the professional accounting competencies scale, showed that students in cooperative learning method classes had developed their professional accounting competencies more than students in traditional teaching method classes. These results indicate that the teaching method influenced the development of students' perceptions of professional accounting competencies. The study also found that students who studied in cooperative learning method classes had statistically significant higher perceptions of development of professional accounting competencies than students who studied under the traditional teaching method. Thus, the cooperative learning method helps students to develop their professional accounting competencies.

Also, the results, based on written exam in post written exam 1, indicate that overall written exam results there was not a significant difference between the cooperative learning method group and traditional teaching method group. However, based on post written exams 2, students taught under the cooperative learning method acquired professional accounting competencies more so than those students taught by the traditional teaching method. This indicates that the teaching method influences students' professional accounting competencies based on written exam.

Furthermore, the findings illustrate that there is a relationship between students' perceptions of empowerment and professional accounting competencies. These results indicate that, the learner empowerment influences professional accounting competencies. When students feel empowered they are more likely to positively

develop their professional accounting competencies. In other words, the more empowered students are, the more likely they are to develop professional accounting competencies.

While there was some indication from the qualitative research findings in this study that culture may impact on the availability, effectiveness and/or opportunity to engage with cooperative learning, the overall construct of culture was not a focus of the research question driving this research. For future research however, the investigation of how culture impacts on both learning styles and empowerment would greatly contribute to the literature in this area.

Summary

As has been indicated in the previous chapters, the participants of this study reacted positively towards the implementation of the cooperative learning method at Libyan business degree institution. The research suggests that implementation of the cooperative learning method changed the teaching and learning of accounting at Libyan business degree institution. The findings also suggest that implementation of the cooperative learning method lead students to greater involvement and higher levels of empowerment, including higher engagement and greater perceived importance of the class tasks. Certainly, students' ability to work with others within a group and professional accounting competences were developed through cooperative learning method in accounting classes. In addition, students' attitudes toward the cooperative learning method were positively reported. The changes found between pre and post-involvement in terms of students' perceptions of empowerment and professional accounting competencies in teaching and learning accounting through the implementation of the cooperative learning method revealed

that the cooperative learning method had positive effects on students' learning of accounting.

7.3 Research implications and contribution

The findings of this study may provide some guidance to researchers and practitioners engaged in research and the process of implementing the cooperative learning method in classrooms. The following two subsections outline and examine both the theoretical and practical implications and contributions of the research findings of this study discussed in the previous chapter.

7.3.1 Implications and Contributions for Research

The implications and contributions of the research can be summarised as follows:

There has been no prior research study undertaken at Libyan business degree institutions to investigate students' perceptions of empowerment and the development of professional accounting competencies and the application of the cooperative learning method. Hence, the present study adds to the existing literature as the findings suggest the appropriateness of the cooperative learning method to teach accounting at Libyan business degree institutions where societal cultural principles appear to be well-matched with the principles of cooperative learning method. Although aspects of culture such as a match between the home and the cooperative learning method were not the main focus of the present study, the need for culturally-relevant pedagogy in Libyan business degree institutions was an outcome of the implementation of the cooperative learning method. Previous studies of culturally relevant pedagogy were researched and conducted in western countries where societies are more multicultural. Hence, the findings of this study are based

on a homogeneous cultural society that promotes collectivism as being more important than individualism and, thus, may have some implications for future research.

The application of mixed research methodology facilitated the contributions of the present study to the existing literature of both accounting education and cooperative learning method. This study employed both quantitative and qualitative methods with an experimental design. The use of qualitative research methods provided a comprehensive illustration of the effects of cooperative learning method on students' perceptions of empowerment that previously has not featured in either accounting education or the cooperative learning literature. Therefore, the findings of this study provide a unique contribution to the existing literature on cooperative learning by identifying the effects of the cooperative learning method on students' perceptions of empowerment and development of professional accounting competencies. Also, this study has established the compatibility of both principles of cooperative learning method and the Libyan culture and the appropriateness of cooperative learning method as a teaching and learning method for teaching accounting at Libyan business degree institution. Hence, this research brings together two fields of study in order to develop further insight into the classroom experience of accounting education at Libyan business degree institution.

In addition, this study is the very first such cooperative learning method research study conducted within Libyan education in general. Therefore, the findings of the present study have the capability to inform classroom instructors and researchers investigating the implementation of evidence-based educational involvement in new environments similar to Libya.

7.3.2 Implications and Contributions for Practice

As discussed previously, cooperative learning method is emerging as an increasingly important educational method to facilitate student centred interactive learning. This research has identified issues which can be addressed in order to raise awareness among those parties wishing to promote the implementation of the cooperative learning method to the teaching and learning of accounting in universities. Given that this study has focused on exploring issues on how the implementation of the cooperative learning method influenced students' perceptions of empowerment and the development of professional accounting competencies at Libyan business degree institution, it is useful to identify how this research can provide benefits to the Libyan education system. The following benefits can be regarded as practical implications or contributions of this research.

First, the findings of this study appear to have implications for those involved in accounting education. The findings suggest that significant gaps in the teaching and development of professional accounting competences exist not just in the Libyan education system, but in western education as well. For professional accounting competences, the findings of this study suggest that participation in cooperative learning method's classrooms was positively associated with the use of the cooperative learning method as an alternative teaching method of accounting. As has been indicated, the limited knowledge that has been provided in professional accounting competences suggest that greater emphasis on this aspect needs to be placed on future classes. Greater attention to the basic elements of the cooperative learning method seems warranted as empirical research supports the integration of these elements into each cooperative learning method's activity for positive and effective cooperative learning situations (Thousand, Villa & Nevin 1994), because

simply placing students in groups and expecting them to work together does not produce a cooperative effort (Johnson & Johnson 1989; Johnson, Johnson & Roseth 2010).

Second, the researcher is a lecturer in accounting at Libyan business degree institutions and this study has important implications for instructors in Libyan education. Given the significance of cooperative learning method and its positive effects on student learning (Johnson & Johnson 1989) it is vital that pre-service teachers understand how to structure and monitor meaningful learning experiences for students.

Finally, this research has identified the cultural appropriateness between the cooperative learning method within the Libyan education system and home, and its adverse effects on students' perceptions of learning. Therefore, meaningful learning of accounting places accounting in the context of real life experiences of students outside university. As Ladson-Billings (1995) suggested, a culturally responsive pedagogy is necessary to make schooling more relevant and to promote a better overall quality of education. In arguing for contextual accounting teaching and learning, the researcher does not advocate a replacement of current teaching and learning methods by the cooperative learning method that shares the Libyan cultural norms but, rather, an integration of the two, since student centred teaching and learning is viewed as essential for the developing professional accounting competences.

The findings of this study have provided some insights for instructors to understand how students experience the cooperative learning method compared with the traditional teaching method so that they can prepare lessons for various teaching

contexts to maximise outcomes of teaching and learning accounting. By facilitating the cooperative learning method, instructors may more effectively manage student behaviour, promote empowerment, raise interest in learning, and develop professional accounting competencies.

7.4 Limitations and Recommendations

The present study has three main limitations. The results of this study are limited to generalization for many reasons. This study was limited to first year accounting students at Libyan business degree institution. This study did not consider all variables that could have been influenced by the cooperative learning method or affect students' perceptions of empowerment. Another limitation is the linguistic fidelity of Libyan students who attended the classes and who speak only Arabic. As a result, generalization of the results should be treated cautiously.

Firstly, data was gathered from only first year Libyan accounting students at business degree institution in Libya in one semester. This may have affected the results because of the uniqueness of each business degree institution, although this was not apparent. Therefore, the study should be replicated using a sample of students from several business degree institutions.

Secondly, this study did not consider all variables that could have been influenced by the cooperative learning method or affect students' perceptions of empowerment. Rather, cooperative learning method and students' perceptions of empowerment and professional accounting competencies were the scope of the present study.

Finally, as mentioned above, one of the limitations is the linguistic fidelity of Libyan students who attended the classes and speak only Arabic. The eliciting of

information from students about themselves was conducted in Arabic with Libyan participants; and also the questionnaire was designed by western researchers and translated to Arabic. The translations may have some discrepancies, even though procedures were taken to consider this issue.

7.5 Suggestions for further research

The findings of the present study provided a unique description of the effects of a cooperative learning method on students' perceptions of empowerment, and were specific to participants in the Libyan context. As has been outlined, this study provided a justification for using student centred teaching and a case for cooperative learning method as an alternative method of teaching and learning accounting at Libyan business degree institutions. The outcomes of this study provide some insights on the effects of the teaching method on students' perceptions of empowerment and the development of professional accounting competencies at Libyan business degree institution. More research is needed over a longer period to determine how the proficiency of students of various abilities, developmental levels and experience differs in different teaching situations. Also, it would be useful to determine how students who are experienced in or familiar with professional accounting competencies terminology differ in their development of professional accounting competencies. Given the nature of students' empowerment in learning accounting and to engage in small group learning, further research may be needed to pose a number of meaningful questions to further compare cooperative learning method with other methods of teaching accounting at university level. This may provide some valuable insights into teaching and learning processes.

Additional research may be required at Libyan business degree institutions to increase the generalization of the present findings to both the cooperative learning method and accounting education. This calls for a further semester or year in cooperative learning research studies to determine whether the students' perceptions of empowerment in learning accounting increase with additional experience in using cooperative learning method. In addition, there is a need for further research that would illustrate and document the conditions under which cooperative learning method improves development of professional accounting competencies and promotes gains in learning accounting. In particular, interest in this regard would be a comparative study of various cooperative learning method, as well as comparisons with competitive or individualistic learning methods in order to determine if the cooperative learning method is equally effective in producing desired student outcomes, and under what conditions these methods are likely to be effective in achieving the cognitive—as well as affective—outcomes of teaching and learning accounting in Libya.

In addition, a line of investigation in cooperative learning method could also be examined relating to students' previous achievement differences between traditional and cooperative learning methods, previous major, and gender differences. Furthermore, as has been indicated, too little is known about how students learn or the depth of their understanding of particular accounting concepts in a particular learning environment. This would validate the claims that the cooperative learning method promotes deeper understanding; and determine whether some cooperative learning method is better than others. The need to extend the cooperative learning method to overall Libyan education is a promising area for future research.

7.6 Conclusion

This study sought solutions to particular problems in teaching and learning accounting at Libyan business degree institution. It has revealed some evidence to support the effectiveness of the cooperative learning method in accounting classrooms. It also provided some insights to suggest that the cooperative learning method can be more relevant and applicable in countries where the societal cultural principles share the principles of cooperative learning method. The findings of this study suggest that Libyan accounting students prefer the cooperative learning method over the traditional teaching method in teaching and learning accounting.

Significant differences in the participants' perceptions were found between the pre and post-data in all sources of research data. This suggests that implementation of the cooperative learning method in a Libyan business degree institution has a positive impact on students' perceptions of empowerment, and the development of professional accounting competencies. As has been mentioned, previous studies in cooperative learning method were conducted in western countries, but the findings of the present study are based on Libya. This adds a new dimension to the existing literature and should also interest those researchers and practitioners who advocate the cooperative learning method.

The cooperative learning method appears to have a strong record of success in increasing student motivation to learn, providing positive relationships among students, and enhancing higher academic achievement (Johnson & Johnson 2005; Johnson, Johnson & Holubec 1993; Johnson, Johnson & Roseth 2010; Jolliffe & Hutchinson 2007). The implications of a study such as this for the teaching and learning of accounting must be assessed in context. Since Libyan students live in a

society where tradition asserts that the group is more important than the individual, teachers, administrators, practitioners, policymakers and teacher educators in Libya need to acknowledge the importance of culturally appropriate teaching pedagogies—along with the competitive and individualistic learning practices that are believed to be imported as part of the education curriculum from western countries.

A meaningful link between home and education experiences appears necessary for effective classroom learning, because societal culture is believed to have a potential impact on what takes place in the classroom. The participants' preference for the cooperative learning method to learn accounting at business degree institution may suggest the nature of this link between their cultural roots, and the norms and values of cooperative learning method.

Future research is needed to follow-up the progress of the implementation of cooperative learning method and to see more in-depth classroom practice of cooperative learning method. This would involve a larger data collection using an experimental design to allow comparisons between the cooperative learning method and the traditional teaching method in accounting in other contexts and in Libyan business degree institutions and Libyan education in general.

REFERENCES

Abdul-karim, A 2007, *Improve the quality of accounting education*, Academic of Postgraduate Studies, Tripoli, Libya.

Abeysekera, I 2011, 'Learning financial accounting in a tertiary institution of a developing country. An investigation into instructional methods', *Journal of University Teaching and Learning Practice*, vol. 8, no. 1.

Abouzied, M 2005, *International accounting and its reflection on Arabic countries (in Arabic)* 1st edn, Etrak, Cairo.

Acar, B & Tarhan, L 2007, 'Effect of cooperative learning strategies on students' understanding of concepts in electrochemistry', *International Journal of Science and Mathematics Education*, vol. 5, no. 2, pp. 349-73.

Accounting Education Change Commission 1990a, 'urges priority for teaching in higher education', *Issues in Accounting Education*, vol. 5, no. 2, pp. 330-1.

Accounting Education Change Commission 1990b, 'Objectives of education for accountants: position statement number one', *Issues in Accounting Education*, vol. 5, no. 2, p. 307.

Accounting Education Change Commission 1992, 'The first course in accounting: position statement no. two', *Issues in Accounting Education*, vol. 7, no. 2, pp. 249-51.

Ahmad, NS & Gao, SS 2004, 'Changes, problems and challenges of accounting education in Libya', *Accounting Education: An International Journal*, vol. 13, no. 3, pp. 365-90.

Ahrens, T & Chapman, CS 2006, 'Doing qualitative field research in management accounting: Positioning data to contribute to theory', *Accounting, Organizations and Society*, vol. 31, no. 8, pp. 819-41.

Al-Twaijry, AA 2010, 'Student academic performance in undergraduate managerial-accounting courses', *Journal of Education for Business*, vol. 85, no. 6, pp. 311-22.

Albrecht, W & Sack, R 2000, *Accounting education: charting the course through a perilous future*, American Accounting Association Sarasota, FL.

Alhmali, R 2007, 'Student attitudes in the context of the curriculum in Libyan education in middle and high schools', PhD thesis, University of Glasgow.

ALTC 2010, *Learning and teaching academic standards project*.

Andersen, A 1989, *Perspectives on Education: Capabilities for Success in the Accounting Profession*, New York.

Australian Curriculum Assessment and Reporting Authority (acara) n.d, *General capabilities in the Australian Curriculum* acara, viewed 27/02/2013 <http://www.australiancurriculum.edu.au/GeneralCapabilities/Overview/General-capabilities-in-the-Australian-Curriculum>.

Awayiga, JY, Onumah, JM & Tsamenyi, M 2010, 'Knowledge and skills development of accounting graduates: the perceptions of graduates and employers in Ghana', *Accounting Education: An International Journal*, vol. 19, no. 1-2, pp. 139-58.

Badri, MA 2007, *Analysis of the causes of underdevelopment in the curriculum of the accounting subjects* Academic of Postgraduate Studies, Tripoli, Libya.

Ballantine, J & Larres, P 2007a, 'Cooperative learning: a pedagogy to improve students' generic skills?', *Education+ Training*, vol. 49, no. 2, pp. 126-37.

Ballantine, J & Larres, PM 2007b, 'Final year accounting undergraduates' attitudes to group assessment and the role of learning logs', *Accounting Education: An International Journal*, vol. 16, no. 2, pp. 163-83.

Ballantine, J & Larres, P 2009, 'Accounting undergraduates' perceptions of cooperative learning as a model for enhancing their interpersonal and communication skills to interface successfully with professional accountancy education and training', *Accounting Education: An International Journal*, vol. 18, no. 4-5, pp. 387-402.

Banet, E & Ayuso, GE 2003, 'Teaching of biological inheritance and evolution of living beings in secondary school', *International Journal of Science Education*, vol. 25, no. 3, pp. 373-407.

Battistich, V, Solomon, D & Delucchi, K 1993, 'Interaction processes and student outcomes in cooperative learning groups', *The Elementary School Journal*, vol. 94, no. 1, pp. 19-32.

Baviskar, SN, Hartle, RT & Whitney, T 2009, 'Essential criteria to characterize constructivist teaching: derived from a review of the literature and applied to five constructivist-teaching method articles', *International Journal of Science Education*, vol. 31, no. 4, pp. 541 - 50.

Becker, J 1996, 'Peer coaching for improvement of teaching and learning', *Retrieved September*, vol. 19, p. 2006.

Berg, BL 2007, *Qualitative research methods for the social sciences*, 6th edn, Pearson Education Allyn & Bacon, Boston.

Bernard, HR 2000, *Social research methods: qualitative and quantitative approaches*, Sage Publications, Thousand Oaks.

Best, JW & Kahn, JV 2003, *Research in education*, 9th edn, Prentice Hall, Englewood Cliffs, N.J.

Biggs, J 1993, 'What do inventories of students' learning processes really measure? A theoretical review and clarification', *British Journal of Educational Psychology*, vol. 63, no. 1, pp. 3-19.

Block, P 1987, *The empowered manager: positive political skills at work*, Jossey-Bass San Francisco.

Boehm, RF & Gallavan, NP 2000, 'Adapting cooperative learning to an introductory analysis class', *Journal of Engineering education*, vol. 89, no. 4, pp. 419–21.

Bogdan, R & Biklen, SK 2007, *Qualitative research for education : an introduction to theories and methods*, 5th edn, Pearson A & B, Boston, Mass.

Booth, P, Luckett, P & Mladenovic, R 1999, 'The quality of learning in accounting education: the impact of approaches to learning on academic performance', *Accounting education*, vol. 8, no. 4, pp. 277-300.

Boud, D, Cohen, R & Sampson, J 1999, 'Peer learning and assessment', *Assessment & Evaluation in Higher Education*, vol. 24, no. 4, pp. 413-26.

Brown, D & Thomson, C 2000, *Cooperative learning in New Zealand schools*, Dunmore Press, Palmerston North.

Caldwell, M, Weishar, J & Glezen, G 1996, 'The effect of cooperative learning on student perceptions of accounting in the principles courses', *Journal of Accounting Education*, vol. 14, no. 1, pp. 17-36.

Cheng, K & Chen, Y 2008, 'Effects of Cooperative Learning in a College Course on Student Attitudes toward Accounting: A Quasi-Experimental Study', *International Journal of Management*, vol. 25, no. 1, p. 111.

Clarke, JI 1963, 'Oil in Libya: some implications', *Economic Geography*, vol. 39, no. 1, pp. 40-59.

Clinton, B & Kohlmeyer, J 2005, 'The effects of group quizzes on performance and motivation to learn: Two experiments in cooperative learning', *Journal of Accounting Education*, vol. 23, no. 2, pp. 96-116.

Coakes, SJ 2009, *SPSS version 12.0 for windows: Analysis without anguish*, Wiley, Brisbane.

Cole, M, John-Steiner, V, Scribner, S & Souberman, E 1978, *Mind in society: the development of higher psychological*, Harvard University Press, London.

Council, UNS 2003, *Security council lifts sanctions imposed on libya after terrorist bombings of Pan Am 103, UTA 772: Resolution 1506 Adopted by Vote of 13 In Favour*, United Nations, viewed 18/2/ 2013, <http://www.un.org/News/Press/docs/2003/sc7868.doc.htm>.

Creswell, J 2005, *Research design: Qualitative and quantitative approaches*, Thousand Oaks, CA: Sage.

Creswell, J 2009, *Research design: qualitative, quantitative, and mixed methods approaches*, 3th edn, SAGE Publications London

Cunningham, B, Nikolai, LA & Bazley, J 2004, *Accounting: information for business decisions*, Thomson/South-Western, Array Mason.

Curran, C 2002, *Catholic social teaching, 1891-present: A historical, theological, and ethical analysis*, Georgetown University Press, Washington.

Davis, B 1993, *Tools for teaching*, Jossey-Bass, San Francisco.

De Lange, P, Jackling, B & Gut, A 2006, 'Accounting graduates' perceptions of skills emphasis in undergraduate courses: an investigation from two Victorian universities', *Accounting & Finance*, vol. 46, no. 3, pp. 365-86.

Denzin, N & Lincoln, Y 1994, 'Introduction: Entering the field of qualitative research', *Handbook of qualitative research*, vol. 2, pp. 361-76.

Farrell, B & Farrell, H 2008, 'Student satisfaction with cooperative learning in an Accounting curriculum', *Journal of University Teaching and Learning Practice*, vol. 5, no. 2, pp. 39-54.

Felder, R & Silverman, L 1988, 'Learning and teaching styles in engineering education', *Engineering Education*, vol. 78, no. 7, pp. 674-81.

Fortin, A & Legault, M 2010, 'Development of generic competencies: impact of a mixed teaching approach on students' perceptions', *Accounting Education: An International Journal*, vol. 19, no. 1, pp. 93 - 122.

Fosnot, C 1989, *Enquiring teachers, enquiring learners: A constructivist approach for teaching*, Teachers College Press New York.

Freire, P 1996, *Pedagogy of the oppressed*, Penguin Education, Penguin, London.

Friedlan, JM 1995, 'The Effects of Different Teaching Approaches on Students' Perceptions of the Skills Needed for Success in Accounting Courses and by Practicing Accountants', *Issues in Accounting Education*, vol. 10, no. 1, pp. 47-63.

Frymier, AB, Shulman, GM & Houser, M 1996, 'The development of a learner empowerment measure', *Communication Education*, vol. 45, no. 3, p. 181.

Gabbin, A & Wood, L 2008, 'An experimental study of accounting majors' academic achievement using cooperative learning groups", *Issues in Accounting Education*, vol. 23, no. 3, pp. 391-404.

Gable, GG 1994, 'Integrating case study and survey research methods: an example in information systems', *European Journal of Information Systems*, vol. 3, no. 2, pp. 112-26.

Geiger, MA & Ogilby, SM 2000, 'The first course in accounting: students' perceptions and their effect on the decision to major in accounting', *Journal of Accounting Education*, vol. 18, no. 2, pp. 63-78.

Gijbels, D & Loyens, S 2009, 'Constructivist learning (environments) and how to avoid another tower of Babel: reply to Renkl', *Instructional Science*, vol. 37, no. 5, pp. 499-502.

Gillies, R & Ashman, A 2003, *Cooperative learning: the social and intellectual outcomes of learning in groups*, Falmer Press.

Goudas, M & Magotsiou, E 2009, 'The effects of a cooperative physical education program on students' social skills', *Journal of Applied Sport Psychology*, vol. 21, no. 3, pp. 356-64.

Greenstein, MM & Hall, JA 1996, 'Using student-generated cases to teach accounting information systems', *Journal of Accounting Education*, vol. 14, no. 4, pp. 493-514.

Hair, J, F, Black, W, C., Babin, B, J, Anderson, R, E & Tatham, R, L (eds) 2006, *Multivariate Data Analysis*, 6th edn, Pearson Prentice Hall, Upper Saddle River.

Hancock, P, Howieson, B, Kavanagh, M, Kent, J, Tempone, I, Segal, N & Freeman, M 2009, 'The roles of some key stakeholders in the future of accounting education in Australia', *Australian Accounting Review*, vol. 19, no. 3, pp. 249-60.

Heitmann, G 1969, 'Libya: An Analysis of the Oil Economy', *The Journal of Modern African Studies*, vol. 7, no. 2, pp. 249-63.

Hodson, D 1988, 'Experiments in science and science teaching', *Educational philosophy and theory*, vol. 20, no. 2, pp. 53-66.

Holcomb, T & Michaelsen, R 1996, 'A strategic plan for educational technology in accounting', *Journal of Accounting Education*, vol. 14, no. 3, pp. 277-92.

Hosal-Akman, N & Simga-Mugan, C 2010, 'An Assessment of the Effects of Teaching Methods on Academic Performance of Students in Accounting Courses', *Innovations in Education and Teaching International*, vol. 47, no. 3, p. 10.

Houser, ML & Frymier, AB 2009, 'The role of student characteristics and teacher behaviors in students' learner empowerment', *Communication Education*, vol. 58, no. 1, pp. 35-53.

Howieson, B 2003, 'Accounting practice in the new millennium: is accounting education ready to meet the challenge?', *The British Accounting Review*, vol. 35, no. 2, pp. 69-103.

Huang, H-M, Rauch, U & Liaw, S-S 2010, 'Investigating learners' attitudes toward virtual reality learning environments: Based on a constructivist approach', *Comput. Educ.*, vol. 55, no. 3, pp. 1171-82.

Hurt, B 2007, 'Teaching what matters: A new conception of accounting education', *The Journal of Education for Business*, vol. 82, no. 5, pp. 295-9.

Hwang, NCR, Lui, G & Tong, MJW 2005, 'An Empirical Test of Cooperative Learning in a Passive Learning Environment', *Issues in Accounting Education*, vol. 20, no. 2, pp. 151-65.

Hwang, NCR, Lui, G & Tong, MJW 2008, 'Cooperative Learning in a Passive Learning Environment: A Replication and Extension', *Issues in Accounting Education*, vol. 23, no. 1, pp. 67-75.

IFAC 2009, *Framework for international education standards for professional accountants* <http://www.ifacnet.com/?q=framework+for+international+education+statements&utm_medium=searchbox>.

Jackling, B 2005, 'Perceptions of the learning context and learning approaches: implications for quality learning outcomes in accounting', *Accounting Education*, vol. 14, no. 3, pp. 271-91.

Jackling, B & Calero, C 2006, 'Influences on undergraduate students' intentions to become qualified accountants: evidence from Australia', *Accounting education*, vol. 15, no. 4, pp. 419-38.

Jackling, B & McDowall, T 2008, 'Peer mentoring in an accounting setting: a case study of mentor skill development', *Accounting Education*, vol. 17, no. 4, pp. 447-62.

Jackling, B & De Lange, P 2009, 'Do Accounting graduates' skills meet the expectations of employers? a matter of convergence or divergence', *Accounting Education*, vol. 18, no. 4, pp. 369-85.

Jackling, B & Watty, K 2010, 'Generic skills', *Accounting Education: An International Journal*, vol. 19, no. 1-2, pp. 1-3.

Ji-Ping, Z & Collis, B 1996, 'A Comparison of Teaching Models in the West and in China', *Journal of Instructional Science and Technology*, vol. 1, no. 1.

John, RBS 2007, 'Libya's Oil & Gas Industry: Blending Old and New', *The Journal of North African Studies*, vol. 12, no. 2, pp. 203-18.

Johnson, D 2003, 'Social Interdependence: Interrelationships among Theory, Research, and Practice', *American Psychologist*, vol. 58, no. 11, p. 12.

Johnson, D & Johnson, R 1989, *Cooperation and competition: Theory and research*, Interaction Book Company.

Johnson, D & Johnson, R 1994, *Learning together and alone: cooperative, competitive, and individualistic learning*, 4th edn, Array Boston: , Allyn and Bacon.

Johnson, D & Johnson, R 2002, *Multicultural education and human relations: valuing diversity*, Allyn and Bacon, Boston.

Johnson, D & Johnson, R 2005, 'New developments in social interdependence theory', *Genetic, social, and general psychology monographs*, vol. 131, no. 4, pp. 285-358.

Johnson, D & Johnson, R 2007, 'Social interdependence theory and cooperative learning: the teacher's role ', in R Gillies, A Ashman & J Terwel (eds), *The teacher's role in implementing cooperative learning in the classroom*, Dordrecht Springer.

Johnson, D, Johnson, R & Holubec, E 1993, *Circles of learning: cooperation in the classroom*, 4th edn, Interaction Book Company Edina.

Johnson, D, Johnson, R & Smith, K 2007, 'The state of cooperative learning in postsecondary and professional settings', *Educational Psychology Review*, vol. 19, no. 1, pp. 15-29.

Johnson, D, Johnson, RT & Roseth, C 2010, 'Cooperative Learning in Middle Schools: Interrelationship of Relationships and Achievement', *Middle Grades Research Journal*, vol. 5, no. 1, pp. 1-18.

Jolliffe, W & Hutchinson, H 2007, 'Implementing cooperative learning in a Networked Learning Community', *Education 3-13*, vol. 35, no. 1, pp. 5-16.

Jones & Abraham, A 2008, 'Preparing accountants for today's global business environment: The role of Emotional Intelligence in accounting education', *Faculty of Commerce Papers*, p. 482.

Jones, A 2010, 'Generic attributes in accounting: the significance of the disciplinary context', *Accounting Education: An International Journa*, vol. 19, no. 1, pp. 2-21.

Jong, B, Wu, Y & Chan, T 2006, 'Dynamic grouping strategies based on a conceptual graph for cooperative learning', *IEEE Transactions on Knowledge and Data Engineering*, vol. 18, no. 6, pp. 738-47.

Joyce, B, Weil, M & Calhoun, E 2011, *Models of teaching*, 8th ed. edn, Pearson.

Joyce, B, Weil, M & Calhoun, E (eds) 2009, *Models of teaching*, 8th edn, Pearson Education, Inc,, Boston.

Kavanagh, M & Drennan, L 2007, 'Graduate attributes and skills: are we as accounting academics delivering the goods?', paper presented to Accounting &

Finance Association of Australia and New Zealand confernce, Gold Coast, Australia.

Kavanagh, M & Drennan, L 2008, 'What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations', paper presented to Accounting & Finance Association of Australia and New Zealand Conference Adelaide, Australia.

Kavanagh, M, Hancock, P, Howieson, B, Kent, J & Tempone, I 2009, 'Stakeholders' perspectives of the skills and attributes for accounting graduates', paper presented to Accounting & Finance Association of Australia and New Zealand, Adelaide, Australia.

Keats, DM 1999, *Interviewing: A practical guide for students and professionals*, Univ of New South Wales.

Kennedy, F & Dull, R 2008, 'Transferable team skills for accounting students', *Accounting Education*, vol. 17, no. 2, pp. 213-24.

King, WL & Masters, RJ 2011, 'Differences between the work orientations of college accounting majors and those who are most successful in accounting', *Journal of Applied Business Research (JABR)*, vol. 6, no. 3, pp. 8-13.

Kozulin, A, Gindis, B, Ageyev, V & Miller, S 2003, *Vygotsky's educational theory in cultural context*, Cambridge University Press, Cambridge.

Kvale, S & Brinkmann, S 2009, *Interviews: Learning the craft of qualitative research Iinterviewing.|| SAGE Publications*, 2 edn, Sage Publications, London.

Learning and Teaching Academic Standards Project 2010, *Learning and teaching academic standards statement for accounting*, Australian Government Department of Education, Employment and Workplace Relations, Canberra, < http://www.altc.edu.au/system/files/altc_standards_ACCOUNTING_090211.pdf>.

Leedy, P & Ormrod, J 2005, *Practical research: planning and design*, 8th edn, Prentice Hall, New Jersey.

Libya, NTO 2011, *Higher education in Libya* Tripoli - Libya, <http://eacea.ec.europa.eu/tempus/>.

Libya, TDoENRo 2008, paper presented to International Conference on Education, Session 48, Geneva, Switzerland.

Mahmud, MB & Russell, A 1999, 'An analysis of Libya's revenue per barrel from crude oil upstream activities, 1961 93', *OPEC review*, vol. 23, no. 3, pp. 213-49.

Mahmud, MB & Russell, A 2002, 'Evidence that the terms of petroleum contracts influence the rate of development of oil fields', *OPEC review*, vol. 26, no. 1, pp. 21-44.

Mailloux, CG 2006, 'The extent to which students' perceptions of faculties' teaching strategies, students' context, and perceptions of learner empowerment predict perceptions of autonomy in BSN students', *Nurse Education Today*, vol. 26, no. 7, pp. 578-85.

Mayer, R 1996, 'Learners as information processors: legacies and limitations of educational psychology's second', *Educational Psychologist*, vol. 31, no. 3/4, p. 151.

Mayer, R 2004, 'Should There Be a Three-Strikes Rule Against Pure Discovery Learning?', *American Psychologist*, vol. 59, no. 1, p. 14.

McCarthy, J & Anderson, L 2000, 'Active learning techniques versus traditional teaching styles: Two experiments from history and political science', *Innovative Higher Education*, vol. 24, no. 4, pp. 279-94.

Mcguigan, N, Weil, S & Kern, T 2011, *Student Perspectives on the Development of Group Process Skills in Introductory Accounting*, Melbourne, Australia.

Miglietti, C 2002, 'Using cooperative small groups in introductory accounting classes: a practical approach', *The Journal of Education for Business*, vol. 78, no. 2, pp. 111-5.

Mohamed, E & Lashine, S 2003, 'Accounting knowledge and skills and the challenges of a global business environment', *Managerial Finance*, vol. 29, no. 7, pp. 3-16.

Mohidin, R, Jaidi, J, Sang, LT & Osman, Z 2009, 'Effective teaching methods and lecturer characteristics a study on accounting students at universiti Malaysia Sabah (UMS)', *European Journal of Social Sciences*, vol. 8, no. 1.

Mostyn, GR 2012, 'Cognitive Load Theory: What It Is, Why It's Important for Accounting Instruction and Research', *Issues in Accounting Education*, vol. 27, no. 1, pp. 227-45.

Moustafa, E & Aljifri, K 2009, 'Enhancing Students' Performance in Managerial Accounting', *The Accounting Educators' Journal*, vol. 19, no. 0.

Nie, Y & Lau, S 2010, 'Differential relations of constructivist and didactic instruction to students' cognition, motivation, and achievement', *Learning and Instruction*, vol. 20, no. 5, pp. 411-23.

Oakley, B, Felder, R, Brent, R & Elhajj, I 2004, 'Turning student groups into effective teams', *Journal of Student Centered Learning*, vol. 2, no. 1, pp. 9-34.

Opdecam, E & Everaert, P 2012, 'Improving Student Satisfaction in a First-Year Undergraduate Accounting Course by Team Learning', *Issues in Accounting Education*, vol. 27, no. 1, pp. 53-82.

Opdecam, E, Everaert, P, Van Keer, H & Buysschaert, F 2012, 'The effect of team learning on student profile and student performance in accounting education'.

Otman, W 2008, *Libyan Oil and Gas Resources*, 1st edn, Dar Al-Rowad, Tripoli, Libya.

Pallant, J 2007, *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows*, Open University Press.

Park, HM 2008, *Univariate Analysis and Normality Test Using SAS, Stata, and SPSS*, University Information Technology Services Center for Statistical and Mathematical Computing Indiana University, <http://www.indiana.edu/~statmath/stat/all/normality/normality.pdf>.

Pavkov, T & Pierce, K 2002, *Ready, set, go! A student guide to SPSS 11.0 for windows*, McGraw-Hill Humanities/Social Sciences/Languages, 0072830077.

Quiamzade, A & Mugny, G 2009, 'Social influence and threat in confrontations between competent peers', *Journal of personality and social psychology*, vol. 97, no. 4, pp. 652-66.

Rassuli, A 2011, 'Engagement in Classroom Learning: Creating Temporal Participation Incentives for Extrinsically Motivated Students Through Bonus Credits', *Journal of Education for Business*, vol. 87, no. 2, pp. 86-93.

Rebele, JE 1985, 'An Examination of Accounting Students' Perceptions of the Importance of Communication Skills in Public Accounting', *Issues in Accounting Education*, no. 3, p. 41.

Reckers, M 2006, 'Perspectives on the proposal for a generally accepted accounting curriculum: A wake-up call for academics', *Issues in Accounting Education*, vol. 21, no. 1, pp. 31-52.

Reid, G 2005, *Learning Styles and Inclusion*, Sage publications Ltd, London.

Rhema, A & Miliszewska, I 2010, 'Towards E-Learning in Higher Education in Libya', *Information in Motion:: The Journal Issues in Informing Science and Information Technology (Volume 7)*, vol. 7, p. 423.

Ross, SM & Morrison, GR 1996, 'Experimental research methods', *Handbook of research for educational communications and technology*, pp. 1148-70.

Sajadi, SS & Khan, TM 2011, 'An evaluation of constructivism for learners with ADHD: development of a constructivist pedagogy for special needs', paper presented to European, Mediterranean & Middle Eastern Conference on Information Systems Athens, Greece.

Sapon-Shevin, M & Schniedewind, N 1990, 'Cooperative learning as empowering pedagogy', *Empowerment through multicultural education: edited by Christine E. Sleeter*, p. 159.

Sapon-Shevin, M & Schniedewind, N (eds) 1991, *Cooperative learning as empowering pedagogy*, 1st edn, Empowerment through multicultural education, State University of New York Press, Albany.

Saunders, M, Lewis, P & Thornhill, A 2009, *Research methods for business students*, Prentice Hall.

Sawyer, AJ, Tomlinson, SR & Maples, AJ 2000, 'Developing essential skills through case study scenarios', *Journal of Accounting Education*, vol. 18, no. 3, pp. 257-82.

Schmidt, J, Green, B & Madison, R 2009, 'Accounting department chairs' perceptions of the importance of communication skills', *Advances in Accounting Education: Teaching and Curriculum Innovations*, p. 151.

Schunk, DH 1996, *Learning theories: an educational perspective*, 2nd edn, Prentice-Hall,Inc, New Jersey.

Shulman, G & Luechauer, D 1993, *The empowering educator: a CQI approach to classroom leadership*, in Continuous quality improvement: making the transition to education . Prescott Publishing, Maryville.

Silberman, ML 1996, *Active learning : 101 strategies to teach any subject*, Boston, Allyn and Bacon.

Spreitzer, GM 1995, 'Psychological empowerment in the workplace: Dimensions, measurement, and validation', *Academy of Management Journal*, pp. 1442-65.

Stephen, C & Schmulian, A 2012, 'A Critical Analysis of the Pedagogical Approach Employed in an Introductory Course to IFRS', *Issues in Accounting Education*, vol. 27, no. 1, pp. 83-100.

Stewart, JP & Dougherty, TW 1993, 'Using case studies in teaching accounting: a quasi-experimental study', *Accounting Education: An International Journal*, vol. 2, no. 1, pp. 1 - 10.

Stoner, G & Milner, M 2010, 'Embedding generic employability skills in an accounting degree: development and impediments', *Accounting Education: an international journal*, vol. 19, no. 1, pp. 1-16.

Summers, J & Svinicki, M 2007, 'Investigating classroom community in higher education', *Learning and Individual Differences*, vol. 17, no. 1, pp. 55-67.

Tabachnick, B & Fidell, L 2007, 'Using multivariate analysis', *Using multivariate analysis*.

Tanner, K, Chatman, L & Allen, D 2003, 'Approaches to cell biology teaching: cooperative learning in the science classroom-beyond students working in groups', *Life Sciences Education*, vol. 2, no. 1, p. 1.

Thomas, KW & Velthouse, BA 1990, 'Cognitive elements of empowerment: an "interpretive" model of intrinsic task motivation', *Academy of Management Review*, vol. 15, no. 4, pp. 666-81.

Tibbles, D, Richmond, V, McCroskey, J & Weber, K 2008, 'Organizational orientations in an instructional setting', *Communication Education*, vol. 57, no. 3, pp. 389-407.

Twati, J 2008, *The influence of societal culture on the adoption of information systems: the case of Libya*, Tripoli, Libya <http://www.iima.org/phocadownload/2008_issue_1/4%20ciima%202008-7-1%20%20twati%201-12.pdf>.

Van der Laan Smith, J & Spindle, RM 2007, 'The impact of group formation in a cooperative learning environment', *Journal of Accounting Education*, vol. 25, no. 4, pp. 153-67.

Van Teijlingen, E & Hundley, V 2001, 'The importance of pilot studies', *Social research update*, no. 35, pp. 1-4.

Weber, K & Patterson, B 2000, 'Student interest, empowerment and motivation', *Communication Research Reports*, vol. 17, no. 1, pp. 22-9.

Weber, K, Martin, M & Cayanus, J 2005, 'Student interest: A two-study re-examination of the concept', *Communication Quarterly*, vol. 53, no. 1, pp. 71-86.

Westwood, P 2008, *What teachers need to know about learning difficulties.*, ACER Press, Camberwell, Vic.

Wilkerson Jr, JE 2011, 'A Few Reflections on the First Course in Accounting', *Issues in Accounting Education*, vol. 26, no. 4, pp. 647-.

Woken, M 2010, *Advantages of a pilot study: planning research papers 7*, UNIVERSITY OF ILLINOIS.

Yahia, AF 2008, 'The effects of the fluctuations in oil prices on the performance of the Libyan economy', School of Economics, Universuty of Wollongong.

Yahia, AF & Saleh, AS 2008, 'Economic sanctions, Oil price fluctuations and employment: New Empirical Evidence from Libya', *American Journal of Applied Sciences*, vol. 5, no. 12, pp. 1713-9.

Yamarik, S 2007, 'Does cooperative learning improve student learning outcomes?', *Journal of Economic Education*, vol. 38, no. 3, pp. 259-77.

Yazici, HJ 2004, 'Student perceptions of collaborative learning in operations management classes', *The Journal of Education for Business*, vol. 80, no. 2, pp. 110-8.

Young, M & Warren, DL 2011, 'Encouraging the Development of Critical Thinking Skills in the Introductory Accounting Courses Using the Challenge Problem Approach', *Issues in Accounting Education*, vol. 26, no. 4, pp. 859-81.

Zain, ZM, Subramaniam, G, Rashid, AA & Ghani, EK 2009, 'Teaching economics using cooperative learning approach: accounting students' performance and attitude', *Canadian Social Science*, vol. 5, no. 6, pp. P92-102.

Zakaria, E & Iksan, Z 2007, 'Promoting cooperative learning in science and mathematics education: A Malaysian perspective', *Eurasia Journal of Mathematics, Science & Technology Education*, vol. 3, no. 1, pp. 35-9.

Zhenlin, W 2009, 'To teach or not to teach: Controversy surrounding constructivism in early childhood education', *Hong Kong Journal of Early Childhood*, vol. 8, no. 1, pp. 56-65.

Zraa, W, Kavanagh, M & Johnson Morgan, M 2012, 'A comparison of Libyan and Australian students' perceptions of empowerment in accounting courses', *Journal of Modern Accounting and Auditing*, vol. 8, no. 11.

Zraa, W, Imran, S, Kavanagh, M & Jonson Morgan, M 2011, 'The relationships between students' empowerment, students performance, accounting course perceptions and classroom instruction in accounting', paper presented to paper presented to 15th International Business Research Conference, Sydney, 21-23 Nov.

APPENDICES

APPENDIX A: SAMPLE LESSON PLAN FOR ACCOUNTING I USING COOPERATIVE LEARNING

Lesson plan No: (1) for Accounting I using Cooperative Learning

Grade level: semester 1 **Subject Area**: AccI **Date:**
Topic: Introduction to Accounting
Concept: Understand the purpose of accounting records both within organisations and for use by outside parties.

Objectives

Academic:

At the end of the class students should understand:

1. The teaching method
2. The importance of accounting and its objectives
3. The main types of accounting information
4. The main accounting terms relevant to the course.
5. The assumptions and accepted principles of accounting.

Social Skills: Interpersonal and small group skills

Preconstructional decisions:

Group Size: 2 **Method of assigning students**: working cooperatively in pairs

Room Arrangement: horseshoe

Additional Materials: One copy per pair of sample Balance Sheet and sample Income Statement

1. Begin by introducing everyone in the class.

2. Introduce the teaching method and start practising with students

Activity 1:

Ask students three general questions:

1. Why do you study accounting?

2. Do you like it, why/why not?

3. If no, why you are here?

Students talk to one another for five minutes. If I find no icebreaker I will use the strategies in (Silberman 1996).

Ask students to find someone who:

1. Likes studying accounting.
2. Is good at studying accounting.
3. Has experience in an accounting job.
4. Has already studied accounting.
5. Believes that accounting is good job.

You can use each student for one time.

Prize to student who finishes first.

Criteria for success: Give views

Positive interdependence:

One piece of paper with the questions for each pair. Produce a single product paper.

Individual accountability:

- Go around students and ensure that students are seeking to reach an agreement on the answers to the questions. Check to see if groups are functioning well together, ensuring that no student is 'piggybacking' off another.
- Randomly choose two or three students to talk; put their answer in whiteboard.

Intergroup cooperation: When any pair finish their work and have the same question, they can help other groups to complete the task. Bonus points will be given if all members of class reach pre-set criteria to give views.

Monitoring and intervening:

- **Observation procedure**: informal
- **Observation by**: instructor
- **Intervening for task assistance**: the instructor will circulate around the room offering help.

Evaluating and processing: Discuss outcomes with students and let them write on whiteboard.

3. Begin by talking about the idea of accounting as a language.

Solidify this concept using an example of computer programming as another 'language' used in a professional setting that facilitates communication and understanding.

Activity 2:

Ask students for their own examples of other professional languages. Students talk to one another for five minutes.

Method of assigning students: turn to the next person.

Criteria for success: Give views

Positive interdependence:

Produce a single product paper

Individual accountability:

1. Go around students and ensure that students are seeking to reach an agreement on the answers to the questions. Check to see if pairs are functioning well together, ensuring that no student is 'piggybacking'' off another.
2. Randomly choose two or three students to give examples.

Intergroup cooperation: When any group finishes their work, this group can help other groups to complete the task. Bonus points will be given if all members of class reaching pre-set criteria to give views.

Monitoring and intervening:

1. **Observation procedure**: informal
2. **Observation by**: instructor
3. **Intervening for task assistance**: The instructor will need to circulate around the room, offering help.

4. Discuss the different types of accounting information and use detailed examples.

Operating information:

Discuss the need to track how much cash you have in your bank. When you pay bills or when you receive cash for sales, you need to account for the changes in your financial records.

Activity 3:

Ask students 'if I give you $500 in first day of the month how can you manage this money'. Give students roles, for example, one of them is a father of the family, mother and children. Ask them to request things from their father and record that.

Students talk fifteen minutes (ten for doing that; five minutes for checking how much they have left).

Method of Assigning Students: give them numbers. Then tell them each number 1s come to this side, 2s. This depends on the number of students in the class.

Criteria for success: give numbers, how they spend it.

Positive interdependence:

Produce a single product paper

Individual accountability:

- Go around students and ensure that students are seeking to reach an agreement on the answers to the questions. Check to see if pairs are functioning well together, ensuring that no student is 'piggybacking' off another.
- At the end of the session, randomly choose groups and ask them how much they have left? And how much did they spend?

Intergroup cooperation: When any group finishes its work, this group can help other groups to complete the task. Bonus points will be given if all members of class reach pre-set criteria to give views.

Monitoring and intervening:

- **Observation procedure**: informal
- **Observation by**: Teacher
- **Intervening for task assistance**: The instructor will need to circulate around the room, offering help.

Connect between what did they say and what the concept of operating information means.

Financial information:

Discuss the need to communicate your financial position to the bank. If you apply for a loan, the bank needs to know if you have the ability to repay it.

Activity 4:

Give students an example — one of them needs some money. And ask them in which way do you think you can give him or her money. Students talk to one another for five minutes.

Method of Assigning Students: turn to the next person.

Criteria for success: give views

Positive interdependence: Produce a single product paper

Individual accountability:

- Go around students and ensure that students are seeking to reach an agreement on the answers to the questions. Check to see if pairs are functioning well together, ensuring that no student is 'piggybacking' off another.
- Randomly choose two or three students to give examples.

Intergroup cooperation: When any pairs finish their work, they can help other pairs to complete the task. Bonus points will be given if all members of class reach pre-set criteria to give views.

Monitoring and intervening:

- **Observation procedure**: informal
- **Observation by**: instructor
- **Intervening for task assistance**: The instructor will need to circulate around the room, offering help.

Connect between what did they say and what the concept of financial information means.

Managerial information:

Discuss the need for managers to use financial information when making business decisions. Talk about the need to prepare a budget.

5. Discuss the different accounting terminology and reports using examples of each.

Activity 5:

Ask students for their own examples of accounting terms. Students talk for five minutes

Method of Assigning Students: count students.

Criteria for success: level of excellence

Positive interdependence: Produce a single product paper

Individual accountability:

- Go around students and ensure that students are seeking to reach an agreement on the answers to the questions. Check to see if pairs are functioning well together, ensuring that no student is ‘’piggybacking’ off another.
- In the end of the session, randomly choose students and ask them to write on the board some of the terms.

Intergroup cooperation: When any group finishes its work, this group can help other groups to complete the task. Bonus points will be given if all members of class reach pre-set criteria to give views.

Monitoring and intervening:

- **Observation procedure**: informal
- **Observation by**: instructor

- **Intervening for task assistance**: The instructor will need to circulate around the room, offering help.

Talk about the difference between assets, commitments, capital, and liabilities.

Talk about the difference between revenues, expenses, profit, loss, and cost.

Talk about the difference between status and flow reports and point out the terminology used in the report heading ‘as at Dec 31’ on a Balance Sheet versus ‘for the period ending Dec 31’ on the Income Statements.

Show students the samples of balance sheet and income statements by giving each group one.

6. Briefly introduce the assumptions and accepted principles of accounting.

Reminder: the assumptions and principles will underpin their study throughout the course and the whole semester.

Notes: if students have not completed the work within a reasonable timeframe after I have instructed them to do so, I will move onto the next section.

APPENDIX B: SAMPLE LESSON PLAN FOR ACCOUNTING I USING TRADITIONAL METHOD

Lesson Plan No: (1) for Accounting I using traditional method

Grade level: semester 1 **Subject Area:** AccI **Date**: / /

Topic: Introduction to Accounting

Concept: Understand the purpose of accounting records both within organizations and for use by outside parties.

Objectives

Academic:

At the end of this class students should understand:

1. The teaching method
2. The importance of accounting and its objectives
2. The main types of accounting information
3. The main accounting terms relevant to the course.
4. The assumptions and accepted principles of accounting.

Social Skills: Ignored

Room Arrangement

Student desks arranged in rows facing teacher and presentation material. Teacher is facing students with white board.

Additional Materials:

1. Sample Balance Sheet

2. Sample Income Statement

Lesson Activity:

1. Begin by talking about the idea of accounting as a language.

Solidify this concept using an example of computer programming as another 'language'.

Activity 1:

Ask volunteers for their own examples of other professional languages**.**

2. Discuss the different types of accounting information and use detailed examples.

Operating information: discuss the need to track how much cash you have in your bank. When you pay bills or when you receive cash for sales you need to account for the changes in your financial records.

Activity 2:

Ask volunteers ‘if I give them $500 in first day of the month how can they manage their money ‘individually’**.**

Financial information: discuss the need to communicate your financial position to the bank.

Activity 3:

Give students an example—if one of them needs some money. And ask volunteer in which way do you think you can give him or her money.

Managerial information: discuss the need for managers to use financial information when making business decisions. Talk about the need to prepare a budget.

3. Discuss the different accounting terminology and reports using examples of each.

Activity 4:

Ask volunteers for their own examples of accounting terms.

Talk about the difference between assets, commitments, capital, and liabilities.

Talk about the difference between revenues, expenses, profit, loss, and cost.

Talk about the difference between status and flow reports and point out the terminology used in the report heading ‘as at Dec 31’ on a Balance Sheet versus ‘for the period ending Dec 31’ on the Income Statements.

Show students samples of balance sheet and income statements by giving students samples which they have to pass onto others.

4. Briefly introduce the assumptions and accepted principles of accounting.

Reminder: the assumptions and principles will underpin their study throughout the course and the whole semester.

Notes: if students have not completed the work within a reasonable timeframe after I have instructed them to do so, I will move onto the next section.

APPENDIX C: PRE SURVEY FOR STUDENTS ENROLLED IN ACCOUNTING PRINCIPLE I AT LIBYAN BUSINESS DEGREE INSTITUTION

Pre survey for Students enrolled in accounting principle I at Libyan business degree institution

Group **Code:**

Section 1: Learner Empowerment Scale (LES)

Instruction: Please read each statement then check the response that best shows your feeling and experience toward accounting classes. Circle the number that best represents your opinion – 0 indicates 'Never happen at All', 1 'rarely'; 2 'sometimes'; 3 'often' and 4 'happens very often'.

No		Never	Rarely	Sometimes	Often	Very Often
1	I have the power to make a difference in how things are done in my class.	0	1	2	3	4
2	I have a choice in the methods I can use to perform my work.	0	1	2	3	4
3	My participation is important to the success of the class	0	1	2	3	4
4	I have freedom to choose among options in this class.	0	1	2	3	4
5	I can make an impact on the way things are run in my class	0	1	2	3	4
6	Alternative approaches to learning are encouraged in this class	0	1	2	3	4
7	I have the opportunity to contribute to the learning of others in this class.	0	1	2	3	4
8	I have the opportunity to make important decisions in this class	0	1	2	3	4
9	I can influence what happens in this class	0	1	2	3	4
10	I have the power to create a supportive learning environment in this class.	0	1	2	3	4
11	My contribution to this class makes a difference	0	1	2	3	4
12	I can determine how tasks can be performed.	0	1	2	3	4
13	I make a difference in the learning that goes on in this class.	0	1	2	3	4
14	I have freedom to choose in this class	0	1	2	3	4
15	I can influence the instructor.	0	1	2	3	4
16	I feel appreciated in this class	0	1	2	3	4
17	The tasks required in my class are personally meaningful.	0	1	2	3	4
18	I look forward to going to my class.	0	1	2	3	4
19	This class is exciting	0	1	2	3	4
*20	This class is boring.	0	1	2	3	4
21	This class is interesting.	0	1	2	3	4
22	The tasks required in my class are valuable to me.	0	1	2	3	4
23	The information in this class is useful.	0	1	2	3	4
24	This class will help me to achieve my future goals	0	1	2	3	4
25	The tasks required in my class are a save of my time.	0	1	2	3	4
26	This class is important to me.	0	1	2	3	4
27	I feel confident that I can adequately perform my duties.	0	1	2	3	4
28	I feel comfortable by what is required of me in my class.	0	1	2	3	4
29	I possess the necessary skills to perform successfully in class.	0	1	2	3	4
30	I feel able to do the work in this class.	0	1	2	3	4
31	I believe that I am capable of achieving my goals in this class.	0	1	2	3	4
32	I have faith in my ability to do well in this class.	0	1	2	3	4
33	I have the qualifications to succeed in this class.	0	1	2	3	4
34	I have confidence in my ability to perform the tasks in this class.	0	1	2	3	4
35	I feel very competent in this class.	0	1	2	3	4

Section 2 accounting professional competences

36	I expect this class will help me improve my decision making skill.	1	2	3	4	5
37	I expect this class will help me improve my ability to get along with other people.	1	2	3	4	5
38	I expect this class will help me improve my interpersonal skills.	1	2	3	4	5
39	I expect this class will encourage me to participate actively in the learning process.	1	2	3	4	5
40	I expect this class will help me develop my conflict-resolution skills.	1	2	3	4	5
41	I expect this class will encourage me to be tolerant of differing point of view.	1	2	3	4	5
42	I expect this class will help me improve the critical thinking skills.	1	2	3	4	5
43	I expect this class will help me improve the problem solving skills	1	2	3	4	5
44	I expect this class will encourage me to think independently.	1	2	3	4	5
45	I expect this class will encourage me to debated issue critically.	1	2	3	4	5
46	I expect this class will help me revise my prior of views.	1	2	3	4	5
47	I expect this class will help me improve the team work skill.	1	2	3	4	5
48	I expect this class will help me improve the communication skill	1	2	3	4	5
49	I expect this class will help me improve my persuasion skill.	1	2	3	4	5
50	I expect this class will help me improve my questioning skills.	1	2	3	4	5
51	I expect this class will help me improve my listening skills.	1	2	3	4	5
52	I expect this class will help me improve the self management skill.	1	2	3	4	5
53	I expect this class will help me improve organising time skills.	1	2	3	4	5
54	I expect this class will help scheduling and planning my work.	1	2	3	4	5
55	What other skills you expect to learn in this class.					
56	What is your expected grade in the class?	F	C	B	A	HD

Section 4 Demographics

57. Gender: ❒ Male ❒ Female

58. Age: ❒ 18 – 20 ❒ 21 – 22 ❒ 23 and older

59. Grade point average: ❒50-65% ❒65-75% ❒ 75-85% ❒ 85% and higher

60. Major: ❒Accounting ❒Administration ❒ Economy

61. Are you student? ❒new ❒repeated

62. **What is your pervious certificate?**

❒Business ❒ Science & engineering ❒ Social science ❒ Language

APPENDIX D: POST SURVEY FOR STUDENTS ENROLLED IN ACCOUNTING PRINCIPLE I AT LIBYAN BUSINESS DEGREE INSTITUTION

Post survey for Students enrolled in accounting principle I at Libyan business degree institution

Code:..... group: .....

Section 1: Learner Empowerment Scale (LES)

Instruction: Please read each statement then check the response that best shows your feeling and experience toward accounting class. Circle the number that best represents your opinion – 0 indicates, "Never happen at All", 1 ''rarely, 2 ''sometimes'', 3 ''often'' and 4 indicates "happen very often".

No		Never	Rarely	Sometimes	Often	Very Often
1	I have the power to make a difference in how things are done in my class.	0	1	2	3	4
2	I have a choice in the methods I can use to perform my work.	0	1	2	3	4
3	My participation is important to the success of the class	0	1	2	3	4
4	I have freedom to choose among options in this class.	0	1	2	3	4
5	I can make an impact on the way things are run in my class	0	1	2	3	4
6	Alternative approaches to learning are encouraged in this class	0	1	2	3	4
7	I have the opportunity to contribute to the learning of others in this class.	0	1	2	3	4
8	I have the opportunity to make important decisions in this class	0	1	2	3	4
9	I can influence what happens in this class	0	1	2	3	4
10	I have the power to create a supportive learning environment in this class.	0	1	2	3	4
11	My contribution to this class makes a difference	0	1	2	3	4
12	I can determine how tasks can be performed.	0	1	2	3	4
13	I make a difference in the learning that goes on in this class.	0	1	2	3	4
14	I have freedom to choose in this class.	0	1	2	3	4
15	I can influence the instructor.	0	1	2	3	4
16	I feel appreciated in this class	0	1	2	3	4
17	The tasks required in my class are personally meaningful.	0	1	2	3	4
18	I look forward to going to my class.	0	1	2	3	4
19	This class is exciting.	0	1	2	3	4
*20	This class is boring.	0	1	2	3	4
21	This class is interesting.	0	1	2	3	4
22	The tasks required in my class are valuable to me.	0	1	2	3	4
23	The information in this class is useful.	0	1	2	3	4
24	This class will help me to achieve my future goals	0	1	2	3	4
25	The tasks required in my class are a save of my time.	0	1	2	3	4
26	This class is important to me.	0	1	2	3	4
27	I feel confident that I can adequately perform my duties.	0	1	2	3	4
28	I feel comfortable by what is required of me in my class.	0	1	2	3	4
29	I possess the necessary skills to perform successfully in class.	0	1	2	3	4
30	I feel able to do the work in this class.	0	1	2	3	4
31	I believe that I am capable of achieving my goals in this class.	0	1	2	3	4
32	I have faith in my ability to do well in this class.	0	1	2	3	4
33	I have the qualifications to succeed in this class.	0	1	2	3	4
34	I have confidence in my ability to perform the tasks in this class.	0	1	2	3	4
35	I feel very competent in this class.	0	1	2	3	4

Section 2 accounting professional competences

36	This class helped me improve the decision making skills.	1	2	3	4	5
37	This class helped me improve my ability to get along with other people	1	2	3	4	5
38	This class helped me improve my interpersonal skills..	1	2	3	4	5
39	This class encouraged me to participate actively in the learning process.	1	2	3	4	5
40	This class helped me develop the conflict-resolution skills.	1	2	3	4	5
41	This class encouraged me to be tolerant of differing point of view.	1	2	3	4	5
42	This class helped me improve the critical thinking skills.	1	2	3	4	5
43	This class helped me improve the problem solving skills.	1	2	3	4	5
44	This class encouraged me to think independently.	1	2	3	4	5
45	This class encouraged me to debated issue critically.	1	2	3	4	5
46	This class helped me revise my prior views.	1	2	3	4	5
47	This class helped me to improve the team work skill.	1	2	3	4	5
48	This class helped me improve the communication skill.	1	2	3	4	5
49	This class helped me improve my persuasion skill.	1	2	3	4	5
50	This class helped me improve my questioning skills.	1	2	3	4	5
51	This class helped me improve my listening skills.	1	2	3	4	5
52	This class helped me improve the self management skill.	1	2	3	4	5
53	This class helped me improve organising time skills.	1	2	3	4	5
54	This class helped me scheduling and planning my work.	1	2	3	4	5

APPENDIX E: POST WRITTEN EXAMS FOR ACCOUNTING PRINCIPLE I ENGLISH VERSION AND ARABIC VERSION

Faculty of Economics and Commerce-

Period: 1:30 **Subject: Accounting principles 130** Post- written exam 1

Q1: Is it possible for a business transaction to cause both an increase and a decrease on only one side of the basic accounting equation? Explain your answer and provide examples if applicable. (Measured critical thinking.)
Q2: Explain why Assets and Liabilities are classified in the Balance Sheet, and Revenues, Expenses are classified in the Income Statement. In your explanation, identify one qualitative characteristic that supports your explanation. (Measured writing skill.)
Q3: As you are accountant, can you help El Takwa to manage its accounting.

Following are a summary of the transactions that occurred during the financial month ended 31 Dec 2011 in the El-Takwa company:

Building 120,000 Cash 17,000 Bank 330,000

Capital 359,000 Creditors 8,000 Long term debt 100,000

1 Dec 2011, equipment was purchased for $10,000 cash.
1 Dec 2011, merchandise was purchased on account for $280,000.
7 Dec 2011, goods were sold for $175,000 cash and $25,000 on credit terms.
23 Dec 2011, wages paid were $42,000 by bank payments.
27 Dec 2011, cash collections from customers were $11,000.
28 Dec 2011, bank payments to creditor were $35,000.
29 Dec 2011, $1,000 was bank payments for the monthly interest on the long term debt.
29 Dec 2011 purchased a new car for the owner's son $12,000.
Required:

1. Prepare the journal entries and post to the T Accounts. (Measured problem solving and technical accounting competencies.)
2. Justify why you have to post to T Accounts. (Measured critical thinking.)
3. Prepare a Trial Balance as at 31 Dec 2011.(Measured technical accounting competencies.)

Faculty of Economics and Commerce

Period: two hours subject: Accounting principle 1 Post- written exam 2

Q1: A loan offers credit terms to customers from 2nd of May 2011 to sell LG TVs. 'The offer is 2/14 and n/30'

On the 4th of May, Tark buys 50 TVs at $150 each.

Required:

1.1 State what is meant by the term 2/14 and n/30 as shown on the invoices (Measured technical accounting competencies).

1.2 Choose one of these methods, either the *net invoice method or total invoice method* to record the transactions, and justify why you used this method. (Measured problem solving and critical thinking.)

1.3 Record this transaction on Tark's and Aloan's general journal if Tark pays on 10th of May. (Measured technical accounting competencies.)

1.4 Explain why Discount Expense is treated as an expense item in the Financial Statement.

(Measured writing and critical thinking.)

Q2: Abduelsalm had a mistake when he records the office supply as purchases.

His record was Cars DR $5,600
cash CR $6,500

Wages DR $8,700
cash CR $7,800

Required:

a. Which type of mistake is this? (Measured technical accounting competencies.)

b. Do you think you can correct this mistake using the short method, why/why not? (Measured critical thinking.)

c. How will you record the transaction? (Measured problem solving and technical accounting competencies.)

Q3: The opening trial balance and additional data relating to the Elmastkbal Corporation for the month ended 31 Dec 2011 is shown below:

Elmastkbal Corporation

Trial Balance as at 31 Dec 2011

Accounts	Dr	Cr
Cash at bank	$30,000	
Cash	45,000	
Cars	60,000	
Equipment	20,000	
Building	152,000	
Creditors		29,000
Owner's withdrawals		40,000
Long-term debt		94,000
Paid-in capital		??
Retained income		25,000
Sales revenue		80,000
purchases	30,000	
Wages expense	38,000	
Rent expense	23,000	
Selling expenses	5,000	
Sales returns and allowances	2,000	
Purchases returns and allowances		2,000
Administrative expenses	2,000	
Stock 1/1	8,000	
Total	415,000	415,000

The stock on 31 Dec was 5,300.

Required:

3.1 Calculate the amount of paid-in capital.(Measured problem solving.)

3.2 State and justify the accounting principle that requires the business to record the stock taken by the owner for his personal use. (Measured writing skills and critical thinking.)

3.3 Prepare a multiple step income (profit and loss) statement for the month ended 31 Dec 2011. (Measured problem solving and technical accounting competencies.)

3.4 Prepare a classified Balance Sheet. Explain the benefit of the classified Balance Sheet. (Measured problem solving, writing skills and technical accounting competencies.)

(Good luck)

كلية الاقتصاد والتجارة بجامعة ليبية

الزمن: ساعة ونصف المادة: مبادئ محاسبة 130 امتحان مابعد التجربة1

السؤال الاول (5 درجات):التحليل النقدى

هل من الممكن للعملية المالية ان تسبب في ارتفاع وانخفاض في جانب واحد من معادلة الميزانية؟ اشرح ذلك مع ذكرمثال.

السؤال الثانى (5 درجات): الكتابة

اشرح لماذا الاصول والخصوم تصنف في قائمة المركز المالى؟ بينما الايرادات والمصروفات تصنف في قائمة الارباح والخسائر. ادعم ذلك بناء على مفهومك للمبادى والفروض المحاسبية.

السؤال الثالث (20 درجة):

بحكم انك محاسب هل ستطيع مساعدة شركة التقوى في محاسبة عملياتها ؟

الاتى ملخص للعمليات المالية التى حدتث خلال المدة المنتهية في 31 ديسمبر 2011 فى شركة التقوى

اليك الاصدة التالية:

مبانى 120.000 المصرف 330.000 الخزينة 17.000 راس المال 359.000 الدائنون 8.000
الالتزمات طويلة الاجل 100.000 .

في 1 ديسمبر 2011 اشترت تجهيزات تبلغ 10.000 نقدا.

في 1 ديسمبر اشترت بضاعة على الحساب تبلغ 280.000.

في 7 ديسمبر باعت بضاعة بمبلغ 175.000 نقدا و25.000 على الحساب.

في 23 ديسمبر دفعت المرتبات بصك فيمتها 42.000.

في 28 دفعت للدائنون صك بمبلغ 35.000.

في 29 دفعت بصك 1.000 فوائد شهرية على التزامات طويلة الاجل.

في 29 اشترت سيارة جديدة لابن صاحب المشروع 12.000 نقدا.

المطلوب: اعداد قيود اليومية اللازمة

1.اعداد قيود اليومية اللازمة. تحليل مشكلة

2. بررلماذا عليك ان ترحل الحسابات الى دفتر الاستاذ. كتابة وتحليل نقدى

3. اعداد ميزان المراجعة بالارصدة. تحليل مشكلة

ملاحظة:

1.اذا لم تتمكن من الاجابة يمكنك كتابة " لا اجابة"

2.يتم ترجيع ورقة الاسئلة مع كراسة الاجابة

كلية الاقتصاد والتجارة بجامعة ليبية

الزمن: ساعتان المادة: مبادئ محاسبة 130 امتحان مابعد التجربة 2

السؤال الاول: (10 درجات)

علوان قدم عرض لزباينه في 2 مايو 2011 لبيع اجهزة اذاعة مرئية:

الشرط كالتالى (14/2 و ن/30):

في 4 مايو طارق اشتري 50 جهاز بسعر 150دينار لكل جهاز نقدا.

المطلوب:

1 وضح معنى هذا الشرط (14/2 و ن/30). كتابة 1 درجة

2 اختار احد الطريقتان (اجمالى الفاتورة او صافي الفاتورة) في تسجيل العمليات (تحليل مشكلة4 درجات) ، وبرر لماذا استخدمت هذه الطريقة (تحليل نقدى2درجة) .

3 سجل العمليات في دفاتر طارق وعلوان (المشتري والبائع) اذا طارق دفع المستحق يوم 10 مايو1درجة

4 برر لماذاالمصروف الخصم يعامل على انه مصروف في قائمة الدخل. تحليل نقدى وكتابة 1 درحة

السؤال الثانى: (10 درجات)

عبد السلام سجل بعض القيود كالتالى.

5600 من ح/ السيارات

6500 الى ح/ النقدية

8700من ح/ المرتبات

7800 الى ح/ النقدية

المطلوب:

1 مانوع هذا الخطاء؟

2 هل تسطيع ان تصصح الخطاء مستخدما الطريقة القصيرة, ولماذا؟ تحليل نقدى

3 كيف تسجل العملية الصحيحة؟ تحليل مشكلة

السؤال الثالث: (20 درجة)

اليك ميزان المراجعة الافتتاحي وبعض المعلومات الاضافية لشركة المستقبل في نهاية ديسمبر 2011:

الحساب	المدين	الدائن
المصرف	30.000	
نقدية	45.000	
سيارات	60.000	
معدات	20,000	
مبانى	152,000	
الدائنون		29,000
المسحوبات		40,000
التزامات طويلة الاجل		94,000
راس المال		??
الارباح المحتجزة		25,000
ايرادات المبيعات		80,000
المشتريات	30,000	
مصروف المرتبات	38,000	
مصروف الايجار	23,000	
مصروف المبيعات	5,000	
مردودات ومسموحات المبيعات	2,000	
مردودات ومسموحات المشتريات		2,000
مصاريف ادارية	2,000	
بضاعة 1/1	8,000	
المجموع	415,000	415,000

بضاعة اخر المدة كانت 5.300

المطلوب:

1 احسب قيمة راس المال؟ تحليل مشكلة

2 وضح ماهو المبداء المحاسبي الذى يشير الى تسجيل البضاعة المستخدمة من قبل صاحب المشروع على انها مسحوبات شخصية. كتابة وتحليل نقدى

3 اعداد حسابات المتاجرة والارباح والخسائر تحليل شكلة .

4 اعداد قائمة المركز المالى , مع شرح فوائد تصنيف قائمة المركز المالى. تحليل مشكلة و كتابة

تمنياتى للجميع بالنجاح والتوفيق

APPENDIX F: PERMISSION TO USE THE INSTRUMENT

You have my permission to use the instrument if you cite the source. Good luck with your research.

****

Gary M. Shulman, Ph.D.
Communication Dept.
Miami University
Oxford, OH 45056

Voice: 513-529-7472
Fax: 513-529-1829
Email: gshulman@muohio.edu
****

On May 10, 2010, at 5:10 PM, "wahida zarraa" <wzarraa@yahoo.com> wrote:

May 2010

Dear Frymier, Shulman and Houser

I am a doctoral candidate at University of Southern Queensland in Australia. My supervisory team is Prof Marie Kavanagh and Dr. Todd Hartle and the title of my study is The effect of cooperative learning method on students' perceptions of empowerment and the development of professional accounting competencies. In my research, I plan to address the following:

The primary research question is:

What are the effects of cooperative learning (CL) and knowledge transfer (KT) techniques on students' perceptions of empowerment, and performance and what is the experience of students and instructor (researcher) in development of professional accounting competencies under both teaching methods in Libya?

In seeking to answer the research problem, the following sub-questions are posed:

1. Is there a significant difference in students' perceptions of the impact, meaningfulness, and competence between CL and KT?
2. Is there a significant difference in student's performance based on the written exams between CL and KT?
3. What is the instructor's experience promoting teaching and learning of professional accounting competencies under CL and KT?
4. What are the students' experiences in developing of professional accounting competencies under CL and KT?

Enclosed is my proposed empowerment survey. I would appreciate it if you could review these questions and provide feedback to me. I would also appreciate it if you would allow me to use your empowerment measure in my study.

I appreciate your time. Please e-mail me.

Thanks

APPENDIX G: ETHICAL CLEARANCE

Dear Ms Zraa,

The Ethics Chair has recently reviewed your application for amendments to approved project "The effect of cooperative learning on students' perceptions of empowerment and the development of professional accounting competencies*" (H10REA262)* as stated in your memorandum dated 14/01/2011. The requested amendments have been endorsed and full ethics approval has been granted.

Your amendment approval number is H10REA262.1

Ethics approval for the project expires on 31/12/2011.

The standard conditions of this approval are:

(a) conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
(b) advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
(c) make submission for approval of amendments to the approved project before implementing such changes
(d) provide a 'progress report' for every year of approval
(e) provide a 'final report' when the project is complete
(f) advise in writing if the project has been discontinued.

For (c) to (e) proformas are available on the USQ ethics website:
http://www.usq.edu.au/research/ethicsbio/human

Please note that failure to comply with the conditions of approval and the *National Statement on Ethical Conduct in Human Research (2007)* may result in withdrawal of approval for the project.

You may now implement the amendments. I wish you all the best for the conduct of the project.

Regards

Helen

Mrs Helen Phillips

Ethics and Research Integrity Officer

Office of Research and Higher Degrees

University of Southern Queensland

Level 5, S Block, West Street, Toowoomba QLD 4350

Email: patricia.phillips@usq.edu.au

Ph: (07) 46 312 690

The University of Southern Queensland

Consent Form

To participants

Full Project Title: The effect of cooperative learning on students' perceptions of empowerment and the development of professional accounting competencies

Researcher: Wahida Zraa

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

Name of participant…….....

Signed……**Date**…….

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

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

The University of Southern Queensland

Plain Language Statement

To: Participants

Full Project Title: The effect of cooperative learning on students' perceptions of empowerment and the development of professional accounting competencies
Student Researcher: Wahida Zraa

Introduction

My name is Wahida Zraa and you are invited to participate in a research project, which aims to assess the effect of cooperative learning on student's perception of empowerment and the development of professional accounting competencies. Your participation in this experiment, survey, pre and post written exams, reflections and interviews will help the researcher to develop a better understanding of the effect of cooperative learning on Libyan accounting student. The research project is being undertaken as part of the requirements of a PhD at University of Southern Queensland and will culminate in a written thesis to be submitted to the University.
About 288 participants are taking part in the experiment all students enrolled in Accounting Principles I (Acc I) in fall semester 2012'' at business degree institution in Libya.
Please read this Plain Language Statement carefully. Its purpose is to explain to you as openly and clearly as possible, all the procedures involved so that you can make a fully informed decision as to whether you are going to participate. Feel free to ask questions about any information in the document. Feel free to discuss the project with a relative or friend or your local council.

Once you understand what the project is about and if you agree to take part in it, it is asked that you sign the Consent Form. By signing the Consent Form, you indicate that you understand the information and that you give your consent to participate in the research project.

1. Purpose of Research

The proposed research will test the cooperative teaching method and compare it with the current teaching method, which called knowledge transfer at business degree institution.. The research seeks to improve the quality of teaching and learning accounting in Libya.
More specifically, the study seeks to answer the following question:

> *What are the effects of a cooperative learning (CL) (cooperative learning is the proposed teaching method for this research—see chapter 2) teaching environment compared with traditional teaching methods environment (TM) on students' perceptions of empowerment, and development of professional accounting competencies based on students' perceptions and written exams in Libya?*

As a student your contribution to this research project will provide practical information that will contribute to a greater understanding of the effects of cooperative learning and knowledge transfer from students' perspective.

2. Procedures

Participation in this project will involve all students enrolled in Accounting principles I at business degree institution.

The experiment students will be answering a survey.The survey will take 15-25 minutes to complete.

Students will also answer per and post written exams as the formal of middle and finally exam.

The researcher would like to observe the classes during the experiment.

The researcher would also like to interview some of students five from each group to get feedback about the potential use of cooperative teaching method to teach accounting in Libya and to find out students' views about current teaching method in university.

Your participation in this study is voluntary and confidential. No names or other information that could personally identify you will be used in any written reports produced during the course of the research.

At any stage, you have the right to withdraw from the study and to decline to answer any individual questions in the questionnaire and interviews. If, after participating in the survey or interviews, you change your mind and decide that you would rather not be involved, you will have the right to request the removal of any material you do not wish to be used.

All data collected and processed in the course will be treated as strictly confidential and will be placed in a secure location.

The results of this research will be published in academic papers and as a doctoral thesis. A copy of the completed thesis will be lodged in the University of Southern Queensland.

This study has received ethical approval from The University of Southern Queensland.

3. Queries or Concerns

Your participation and co-operation in this research will be greatly appreciated. If you have any questions or require any further information about the research project, please contact the principal researcher:

Wahida Zraa
School of Accounting, Economics and Finance
University of Southern Queensland
West Street, Toowoomba QLD 4350, Australia

Phone: +61 7 46875758
Mobile: +61 4 22170523
Email wahida. zraa@usq.edu.au

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

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

نموذج الموافقة

الى المشاركين:

عنوان البحث: تاثير التعلم التعاونى على تصورات التمكين للطلبة وتطوير مهارات المحاسبة المهينية .

انا قرات المعلومات المزودة للمشاركين حول طبيعة البحث واهدفه, اضافة الى ذلك شرحت الى كل النقاط الغير مفهومة. افهم واوافق على المشاركة.

انا مدرك هدف البحث وطبيعة مشاركتى فيه .

استطيع ان انسحب في اى وقت وفي اى مرحلة وهذا لن يوثر على دراستى الان ولا في المستقبل.

انا اوكد ان عمرى اكبر من 18 سنة.

انا مدرك ان البيانات التى سوف تتحصل عليها الباحثة قابلة للنشر. وان معلوماتى الشخصية سوف تكون محمية.

اسم المشارك:.....

التوقيع: ..... التاريخ:.....

اذا عندك اى مخاوف حول حقوقك اوحول البحث كمشارك. من فضلك لا تتردد بالاتصال بجامعة جنوب كوينزلند مكتب الاخلاق على البيانات التالية:

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

Wahida Zraa (وحيدة زراع)
Email: wahida.zraa@usq.edu.au wazrraa@yahoo.com
Phone Number: +218213507845
Supervisors
Pro: Marie Kavanagh:marie.kavanagh@usq.edu.au

الى المشاركين:

عنوان البحث: تأثير التعلم التعاونى على تصورات التمكين للطلبة وتطوير مهارات المحاسبة المهينية .

انا الباحثة وحيدة زراع. اتقدم بدعوتكم لمشاركتي في تجربة تخص بحثى. هدف البحث هو تقييم تأثير التعلم التعاونى على تصورات تمكين الطلبة وتطوير مهارات المحاسبة المهينية. مشاركتك في هذه التجربة وردك على الاستبيان والمقابلات الشخصية وحضورك امتحان ماقبل و مابعد التجربة سوف يساعد في تطوير الفهم في تأثير التعلم التعاونى على طلبة المحاسبة في ليبيا. تقريبا 288 طالب مشارك في هذه التجربة كل الطلبة المسجلين في المحاسبة 130 خلال هذا الفصل الدراسي خريف 2012 كلية الاقتصاد والتجارة . من فضلك ان تقراء هذا البيان بعناية. هدفه شرح كل الاجراءات المتضمنة للبحث. ومن ذلك تستطيع ان تقرر اذا تود في المشاركة في الدراسة او الرفض. لاتتردد ان تسال اى سؤال حول المعلومات في المستند. لاتتردد ان تناقش الخطة مع اقاربك او اصدقاك او اى شخص تراه مناسب. اذا ووافقت على المشاركة من فضلك ان توقع على نموذج الموافقة. بمجرد توقيعك على نموذج الموافقة,يعنى اعطاك الموافقة للمشاركة في هذا البحث.

1.هدف الدراسة:

الدراسة المقترحة سوف تختبر التعلم التعاونى وتقارنه مع طرق التدريس المستخدمة في ليبيا (الطريقة التلقليدية) في كلية الاقتصاد والتجارة. هذه الدراسة تبحث في تحسين جودة التعلم و التعليم المحاسبي في ليبيا.

الدراسة سوف تجيب على السؤال التالى: ماهى تأثيرات طريقة التعلم التعاونى وطريقة التقليدية على تصورات التمكين للطلبة واداهم في الامتحان و في تطوير مهارات المحاسبة المهينية تحت كلتا الطريقتين؟

مساهمتك كاطالب في هذه الدراسة سوف يزود معلومات عملية, سوف تساهم في فهم تاثيرات التعلم التعاونى والتعلم بالتلقين من وجهة نظر الطلبة.

2.الاجراءات:

المشاركة في هذا البحث سوف تتضمن كل الطلبة المسجلين في مادة المحاسبة 130 في كلية الاقتصاد والتجارة.

بعد االتجربة الطلبة سوف يجيبو على الاستبيان في خلال 15-20 دقيقة. الطلبة سوف يجيبو على ماقبل وبعد امتحان كا امتحان نصفى ونهائي. الباحثة سوف تلاحظ الفصل خلال التجربة . ايضا الباحثة سوف تجري مقابلات شخصية مع عينة من الطلبة (5 طلبة من كل مجموعة), لتحصل على معلومات احتمالية استخدام التعلم التعاونى لتدريس المحاسبة في ليبيا. ولمعرفة وجهات نظر الطلبة حول طرق التدريس في كلية الاقتصاد والتجارة.

مشاركتك في هذا التجربة يكون عمل تتطوعى وفي غاية السرية. وهذه الدراسة لن تستعمل اى بيانات شخصية.

في اى مرحلة من التجربة لك الحق في الانسحاب من الدراسة او ان ترفض ان تجيب على اي سؤال على حد السوا من الاستبيان او من المقابلة الشخصية. اذا غيرت رايك واردت ان تنسحب بعد مشاركتك في الاستبيان او المقابلة الشخصية , لك الحق في سحب كل البيانات التى تخصك.

كل البيانات المتحصل عليها ومعالجتها خلال هذا الفصل سوف تتعامل بسرية كاملة و سوف تحفظ في مكان آمن.

نتائج هذه الدارسة سوف تنشر في ورقات اكاديمية و كاطروحة دكتوراة. نسخة من هذه الاطرواحة سوف يتم ايداعها في مكتبة جامعة جنوب كوينزلند. هذه الدراسة تحصلت على موافقة الاخلاق من جامعة جنوب كوينزلند.

Wahida Zraa
School of Accounting, Economics and Finance
University of Southern Queensland
West Street, Toowoomba QLD 4350, Australia
Phone: +61 7 46875758
Mobile: +61 4 22170523
Email: wahida. zraa@usq.edu.au

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