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

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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

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ABSTRACT To interface effectively with professional accountancy training, accounting educationalists should ensure that they turn out graduates who possess the interpersonal and communication skills required of today’s accountant. Attainment of these skills is promoted by group work. However, little empirical evidence exists to help academics make an informed choice about which form of group learning enhances interpersonal and communication skills. This paper addresses this deficiency by comparing perceptions of skills enhancement between accounting students who experienced traditional or simple group learning and those who undertook cooperative learning. The findings reveal that the cooperative learning cohort perceived their learning experience to be significantly more effective at enhancing interpersonal and communication skills than that of the simple group learning cohort. This study provides evidence that cooperative learning is a more effective model for delivering interpersonal and communication skills than simple group learning, thereby creating a more successful interface between academic accounting and professional accountancy training.

KEY WORDS: Group learning, cooperative learning, interpersonal and communication skills

Introduction

The close relationship which exists between tertiary accounting educationalists and accountancy training bodies (i.e. professional accounting bodies through which accounting practitioners are licensed to practice) in the UK reflects the professional nature of
accounting as an undergraduate subject. Indeed, the decision to study accounting at tertiary level is likely to remain popular among career-focused students embarking upon a degree course in that it provides a reasonable guarantee of secure and potentially lucrative employment in a world where university education is dominated by student fees and student loans. Therefore, it is incumbent upon accounting educationalists to develop programmes which, while remaining true to their academic credentials, also address the expectations of the accountancy training bodies and the employers who recruit accounting graduates. To this end, accounting educationalists are well-placed to tailor the learning outcomes of their undergraduate programmes to meet the expectations of the accountancy profession.

Chief among these expectations is that tertiary accounting education should provide professional accountancy training bodies and employers with graduates who possess certain transferable skills (Paisey and Paisey, 1996; Baril, Cunningham, Fordham, Gardner and Wolcott, 1998; Sharma, 1998; Boyce, Williams, Kelly and Yee, 2001; Tempone and Martin, 2003). Transferable skills include a range of general skills such as communication skills, written skills, interpersonal skills, critical, judgment and analytical skills. These skills are neither domain nor subject specific and are alternatively known as soft skills and generic skills. The importance of transferable skills to the professional accountant was recognized some time ago in the USA by the American Institute of Certified Public Accountants’ (AICPA) in their publication entitled The Core Competency Framework for Entry into the Accounting Profession (AICPA, 1999). Recognition of the need for transferable skills among entrants to the accountancy profession has also been provided at an international level by the International Accounting Education Standards Board (IAESB) within the International Federation of Accountants (IFAC) which has produced a standard dedicated to the subject, namely International Education Standard 3 (IES3). IFAC, which operates among its c163 member bodies located in c120 countries throughout the world to “protect the public interest by encouraging high quality practices by the world’s accountants” (IFAC, 2006), refers to its skills base as professional skills in that technical skills and business management skills supplement the transferable skills referred to above. IFAC suggests that the rising expectations of employers, clients and the public regarding professional accountants’ contribution at work and toward society generally have prompted the increased emphasis on these skills (IFAC, 2006).

One of the key categories of transferable skills which the accountancy profession and employers are demanding of their recruits is interpersonal skills, including communication skills. These skills are promoted by working in teams and include, inter alia, the ability to work with others, to negotiate acceptable solutions, to communicate and listen effectively and to solve conflicts which may arise (IFAC, 2003). However, while IES3 provides clear authority on the nature and definition of interpersonal and communication skills, IFAC’s published pronouncements are not prescriptive in suggesting pedagogies or training approaches which would confer these skills on accounting graduates. Instead the implementation of the standard is left to individual member bodies.

One approach recommended in the literature for enhancing interpersonal and communication skills is group-work. However, group learning structures vary widely. On the one hand, traditional or simple group work requires little in the way of structure in terms of group formation, instruction and management. On the other hand, cooperative learning exhibits a more deliberate and robust structure with respect to group formation, instruction and management. While much has been written about group work in general, little in the way of guidance has been provided to help academics make an informed choice as to which form of group learning delivers the greatest benefit in terms of developing accounting students’ interpersonal and communication skills. The current
study addresses this deficiency by comparing perceptions of interpersonal and communication skills enhancement between accounting students who have experienced simple group learning and those who have experienced cooperative learning. The findings of the study reveal that, with the exception of conflict resolution skills, the cooperative learning cohort were of the opinion that their learning experience was significantly more effective at enhancing interpersonal and communication skills than that of the simple group learning cohort.

These findings provide evidence that cooperative learning is an effective model for enhancing undergraduate accounting students’ interpersonal and communication skills, thereby facilitating a more successful interface between academic accounting and professional education and training in accountancy. Cooperative learning serves both academic education and professional training in that the skills it enhances can be beneficial to accounting students in their undergraduate studies and in their postgraduate professional accountancy careers. Moreover it provides undergraduates with experience of working with colleagues who are not of their choosing and thereby reflects the reality of a professional accountant’s working life.

**Literature Review**

The failure of accounting educationalists to turn out graduates who possess transferable skills, including interpersonal and communication skills, has been addressed extensively in the accounting literature. For example, Courtis and Ziad (2002), in a survey of accounting graduates, employers and accounting educationalists, found that graduates and employers were united in their view that the former emerged from university with an inability to either communicate effectively or work well in teams. When asked to identify the reasons for such problems, a lack of coordination between tertiary institutions and employers was cited as the most significant reason and suggested solutions for improvements included encouragement of group projects, emphasis on report writing and developing communication skills. Similar findings have been reported by other accounting researchers (see for example, Zaid and Abraham, 1994; Morgan, 1997).

Concern about a deficiency in transferable skills among accounting graduates has also been expressed by the accountancy profession and has resulted in the publication of a number of reports which address this failing on the part of accounting educators (Bedford *et al.*, 1986; Arthur Andersen *et al.*, 1989; AECC, 1990; IFAC, 1996; Albrecht and Sack, 2000). These reports suggest that education at tertiary level has tended to over-emphasize the technical aspects of accounting to the detriment of transferable skills development.

However, in more recent years the tide appears to be turning. Following acceptance among accounting academics and practitioners that developing students’ transferable skills is an integral part of providing an effective accounting education, a number of studies have focused on exploring ways in which these skills can be enhanced (see for example, Kimmel; 1995; Adler and Milne, 1997; Gammie, Gammie and Cargill, 2002; Kern, 2002; Ballantine and McCourt Larres, 2004). These studies support the view expressed by Candy and Crebert (1991) with regard to tertiary education in general that there are ‘arguments and thinking about learning in the university and at work as part of a seamless continuum, where skills and insights acquired in one context are unselfconsciously carried across to the other’ (p. 574). Whilst recognizing that there are clearly differences between patterns of learning in a university and workplace setting, educators have developed and implemented a number of pedagogies which are designed to equip students with relevant transferable skills thereby easing and facilitating their transition into the work place. These include, for example, problem-based learning, the use of
case studies, field trips and visits, work shadowing, project work, cooperative learning activities and a variety of other activities which collectively are defined as experiential education.

One of the main categories of transferable skills required of a modern professional accountant is interpersonal and communication skills. Such skills ‘enable a professional accountant to work with others for the common good of the organization, receive and transmit information, form reasoned judgments and make decisions effectively’ (para. 17, IFAC, 2003). Consistent with calls made by the accounting profession (for example, Bedford et al., 1986; Arthur Andersen et al., 1989; AECC, 1990) and the tenets of IES3 (IFAC, 2003), that academics adapt their learning environments to enhance team work among students and thereby develop graduates’ interpersonal and communication skills, cooperative learning in particular has been argued to facilitate the development of such skills when adopted at tertiary level (Cottell and Millis, 1993; 1994; Peek, Winking and Peek, 1995; Ravenscroft, Buckless and Zuckerman, 1997).

Cooperative learning typically requires students to be placed in small groups for the purpose of collaborating on a group task. However, whilst small group work is central to the ethos of a cooperative learning environment, simply placing students into groups and requiring them to work together will not necessarily ensure that cooperative learning is attained (see for example, Hite, 1996; Gillies, 2003). Rather, to be assured that a cooperative learning environment exists, groups must be structured so that they achieve five basic elements, namely positive interdependence where group members perceive that they need each other in order to complete the group task; individual accountability whereby each member of the group must be held accountable for completing the group task; face to face interaction where group members support each other’s productivity; the development of interpersonal and small group skills; and group processing where group members are responsible for monitoring the group’s performance (Johnson and Johnson, 1987; 1990; Johnson, Johnson and Smith, 1991; Peek et al., 1995; Ellis and Fouts, 1997). Simple group learning requires much less in the way of formal structure. Yet, despite this significant distinction, the terms ‘cooperative learning’ and ‘group learning’ are often used synonymously in the literature. In distinguishing between both approaches to learning, it is useful to conceive a continuum where, at one end, a simpler form of group work may or may not include some of the five features outlined above, while at the other, a formal structure related to group formation, assessment, instruction and management must be put in place by the instructor to ensure that the five essential elements of cooperative learning are achieved. For example, in a simple group structure, groups are often formed on the basis of self-selection by the students themselves or on the basis of random formation by the instructor. Whilst both methods of group formation are relatively straightforward to implement in practice, neither guarantees heterogeneity and diversity of perspectives within a group: a feature which educationalists insist must be present in a truly cooperative learning environment (Gibbs, 1995; Lejk, Wyvill and Farrow, 1999; Stein and Hurd, 2000). Accordingly, advocates of cooperative learning argue that groups should be formed using pre-determined criteria which include, inter alia, academic achievement, students’ learning styles, personality profiles, ethnic or racial backgrounds, age and gender (Cuseo, 1992).

Group instruction and management are also central to the implementation of an effective cooperative learning environment (Oakley, Felder, Brent and Elhajj, 2004). The instructor in a cooperative learning environment must play a key role in ensuring that groups understand the need to derive clear guidelines for effective group functioning. Additionally, the instructor should act as a facilitator throughout the group learning process addressing contentious issues such as free-riding behaviour and obtaining feedback on the effectiveness of the group process. In so doing, this facilitates achievement
of the essential elements of cooperative learning, including the development of social and small group skills and face to face interaction. This formalized approach contrasts markedly with a simple group structure where group instruction at the outset of the group learning exercise and on-going management by the instructor are likely to be minimal. Rather, the emphasis here is one of letting groups ‘get on with it’.

Cooperative learning is by no means new to tertiary accounting and students’ attitudes to it as a learning experience have been reported in the literature over a number of years. In an early study, Caldwell, Weishar and Glezen (1996) investigated the effects of cooperative learning techniques on introductory accounting students’ perceptions of accounting. Their findings suggested that the cooperative learning techniques adopted were effective in terms of maintaining students’ positive perceptions of accounting. Similar findings have also been reported by Tanner and Lindquist (1998), who found that the use of Monopoly within a cooperative learning environment resulted in positive attitudes towards financial accounting issues in a junior-level financial reporting issues course. Tanner and Lindquist (1998) also found that the cooperative learning environment had a positive effect on students’ perceptions of their own achievements and that it produced higher levels of mutual concern among group members than would be the case in a traditional learning environment. However, contrary to the findings of earlier studies, Lancaster and Strand (2001), reporting on the perceptions of business students undertaking a ten-week managerial accounting course, found no differences in perceptions of students engaged in a cooperative learning environment when compared to those experiencing a traditional lecture-based format. Finally, in a more recent study, Clinton and Kohlmeyer (2005) reported a number of positive aspects of adopting a cooperative learning environment within a group of undergraduate cost accounting students including greater motivation to learn, increased enthusiasm in the subject being studied and an improvement in students’ problem-solving ability. However, despite this body of knowledge which examines accounting students’ perceptions of cooperative learning, little in the way of empirical work exists, which has addressed perceptions of enhancement of accounting students’ interpersonal and communication skills as a consequence of adopting a cooperative learning environment. This study addresses this deficiency.

The Study

This study examines the development of interpersonal and communication skills in a final year undergraduate advanced accounting course at a UK university. It compares students’ attitudes to the development of such skills in a cooperative learning environment with those of students who have experienced a more traditional or simple form of group learning. In so doing, it seeks to provide evidence that cooperative learning acts as a more effective model than simple group learning for delivering interpersonal and communication skills.

Summatively assessed group work had been included in the final year advanced accounting course which is the subject of this research for some years. However, historically, relatively simple group structures had been a feature of this course. For example, with respect to group formation, groups were formed on the basis of students’ self-selection with minimal input from the instructor. Furthermore, groups also exhibited fairly simple structures in terms of instruction and on-going management. Whilst the requirements of the group assessment were clearly articulated at the outset of the course, a laissez-faire approach to group management was adopted in that the instructor abstained from interference in the workings of the groups.

However, feedback from students on an on-going basis suggested that a more structured approach to the setting-up, management and functioning of the group would be welcomed.
For example, feedback from group members identified a number of problematic issues with existing group structures. Primary among these were a lack of group expectations regarding the functioning of groups, the existence of free-riders and instances where components of the group task had been largely completed on an individual basis by the members and pieced together ‘at the last minute’ rather than by working effectively as a group. In addition, on-going feedback from the accounting employers’ liaison group which is convened by the second author’s university and has membership from the leading Big 4 accountancy practices together with representatives from major businesses, smaller accountancy practices and the professional accountancy bodies, suggested that interpersonal and communication skills were increasingly becoming more important in the workplace. Following feedback from both students engaged in the group learning process and representatives from the employers’ liaison group, one of the lecturers responsible for the advanced accounting module embarked upon a review of the relevant group learning literature. As a result, a decision was made to enhance the group learning experience of the final year accounting module by implementing a cooperative learning structure.

The implementation of a cooperative learning environment within the advanced accounting course necessitated a more structured approach in order to promote the basic elements of cooperative learning, namely positive interdependence, individual accountability, faceto face interaction, the development of interpersonal and small group skills and group processing (Johnson et al., 1991). To that end both the group task and the process by which it was to be achieved were emphasized with the instructor playing an active role in terms of facilitating group formation, instruction and management.

Following recommendations in the literature (Cuseo, 1992), group formation was determined on the basis of academic achievement thereby ensuring that each group comprised members of mixed ability. Other criteria such as age, ethnic, racial or geographical backgrounds have also been suggested in the literature as a means of determining groups. However, the relative homogeneity of the students who are the subject of this study renders these criteria inapplicable and hence the adoption of academic achievement was considered to be the most appropriate in the current study.

With respect to group instruction and management, the instructor took a number of steps to ensure that groups would function cooperatively and that any contentious issues arising during the course of the assessment would be addressed. First, following Johnson, Johnson and Smith (1998), the instructor helped achieve positive interdependence in the cooperative learning cohort by requiring the establishment of mutual learning goals at the commencement of the group assessment to maximize group members’ productivity. A set of written group expectations was produced which formed a memorandum of understanding. It was anticipated that the memorandum of understanding would also minimize the incidence of contentious issues, such as free-riding behaviour, persistent tardiness and non-attendance at meetings. To enhance positive interdependence further, the instructor identified a number of roles within the cooperative learning groups (Johnson et al., 1998), namely facilitator, coordinator, recorder and monitor (Oakley, et al., 2004). The instructor recommended that groups nominate a representative to each of the roles on a rotational basis so as to ensure shared leadership by all group members. Second, a number of steps were taken to enhance individual accountability within the cooperative learning cohort. These included requiring the students to sign a declaration indicating that they had contributed equally to the group assignment, requiring students to prepare and submit an individual and group learning log and permitting students to specify an unequal allocation of marks for the group assignment where instances of free-riding were identified (Ramsay, Hanlon and Smith, 2000). The group learning log was designed
to ensure individual accountability by requiring all members of the group to agree on the relative contribution of each member to the achievement of the group’s mutual learning goals. The individual learning log was also designed to enhance individual accountability in that it forced individuals to reflect on their contribution to the group task. Third, in order to ensure face to face interaction, students were expected to meet on a regular basis and discuss the issues surrounding the group exercise, explain to each other how to solve the problem set and, therefore, complete the assignment, relate the requirements of the problem to previous learning and provide support and encouragement to each other. Fourth, following Ramsay *et al.* (2000), guidance was given by the instructor during class on the development of interpersonal and small group skills such as leadership, negotiation, questioning and conflict-resolution. Fifth and finally, to enhance group processing, members of the cooperative learning cohort were required to evaluate their progress towards effective group functioning using criteria developed by Oakley *et al.* (2004). This feedback took the form of a written evaluation which was submitted by students to the instructor on three occasions during the assessment period. In so doing, the instructor provided the cooperative group members with the opportunity to reflect on the achievement of group goals and the extent to which they worked effectively as a group (Johnson *et al.*, 1998). Table 1 summarizes how the five basic elements of cooperative learning (Johnson *et al.*, 1991), as discussed above, were present in the cooperative learning structure contrasted with the simple group learning structure.

Whilst it was anticipated that the benefits of implementing a cooperative learning environment would be greater than those derived from a simple group learning experience, those involved in its implementation were cognisant of the extra administrative burden that it would create for both students and the instructor alike. However, the expectation was that these costs would be outweighed by the benefits.

<table>
<thead>
<tr>
<th>Table 1. Comparison of cooperative learning and simple group learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural requirements identified by Johnson <em>et al.</em>, (1991)</strong></td>
</tr>
<tr>
<td><strong>Positive interdependence</strong></td>
</tr>
<tr>
<td>Establishment of mutual learning goals</td>
</tr>
<tr>
<td>Establishment of group expectations</td>
</tr>
<tr>
<td>Identification of roles within groups</td>
</tr>
<tr>
<td><strong>Individual accountability</strong></td>
</tr>
<tr>
<td>Signing a declaration of equal contribution</td>
</tr>
<tr>
<td>Preparation and submission of an individual and group learning log</td>
</tr>
<tr>
<td>Permitting students to specify an unequal allocation of marks</td>
</tr>
<tr>
<td><strong>Face–to–face interaction</strong></td>
</tr>
<tr>
<td>Importance of student interaction made explicit (e.g. group meetings, group discussions)</td>
</tr>
<tr>
<td><strong>Development of interpersonal and small group skills</strong></td>
</tr>
<tr>
<td>Guidance on the development of interpersonal and small groups skills given</td>
</tr>
<tr>
<td><strong>Group skills</strong></td>
</tr>
<tr>
<td>Reflection on the achievement of group goals via periodic written evaluations</td>
</tr>
<tr>
<td><strong>Cooperative learning cohort</strong></td>
</tr>
<tr>
<td><strong>Simple group learning cohort</strong></td>
</tr>
<tr>
<td>No mutual learning goals established</td>
</tr>
<tr>
<td>No group expectations established</td>
</tr>
<tr>
<td>No role established</td>
</tr>
<tr>
<td>Signing a declaration of equal contribution</td>
</tr>
<tr>
<td>No individual learning log produced</td>
</tr>
<tr>
<td>Option not available</td>
</tr>
<tr>
<td>No guidance provided</td>
</tr>
<tr>
<td>No guidance provided</td>
</tr>
<tr>
<td>No evaluations carried out</td>
</tr>
</tbody>
</table>
Research design

The purpose of the current study was to examine whether students believe that cooperative learning is more effective at enhancing their interpersonal and communication skills than a simple group learning approach. In so doing it is anticipated that the study will provide evidence that cooperative learning functions as a model for a successful interface between academic and professional education and training in accounting by endowing students with enhanced interpersonal and communication skills to enable them to work successfully as professional accountants. Accordingly, the research was carried out, in two separate years, on two independent groups of students studying a final year advanced accounting module. In both cases a group learning environment was adopted for ongoing assessment purposes. However, students in the first cohort at t₀ participated in simple group learning whereas students in the second cohort at t₁ experienced a more structured cooperative learning environment. Apart from this one major difference, all other aspects (i.e. materials covered and contact hours) of the course between t₀ and t₁ had remained the same. In addition, the same two lecturers were involved in delivering the course to both the simple learning and cooperative learning cohorts. One of these lecturers was also the experimenter in the study. Therefore, given the degree of continuity, the t₀ cohort formed the control group in so far as they had not experienced a cooperative learning approach whereas the t₁ class, who had adopted cooperative learning, constituted the experimental group.

Both cohorts were presented with an identical research instrument, which took the form of a questionnaire designed to elicit students’ views on whether their interpersonal and communication skills had been enhanced as a consequence of their respective learning experiences. The skills set identified in the questionnaire was developed by reference to the components of interpersonal and communication skills identified in paragraph 17 of IES3 (IFAC, 2003). Students were required to apply a five point Likert scale, ranging from (5) representing ‘strongly agree’ through to (1) representing ‘strongly disagree’, to a series of statements designed to determine their perceived level of skills enhancement. The questionnaire was distributed to the students during a lecture towards the end of the accounting course in both years (i.e. t₀ and t₁). The distribution was undertaken after the group assessment had been completed but before the marks for the assessment had been disclosed. The purpose of the study was indicated on the front of the questionnaire and was reiterated by the researchers during distribution. The instructions also included a guarantee of confidentiality of the results and an assurance that they would be used for research purposes only.

The number of students present during the distribution at t₀ was 79. All of these returned a usable questionnaire. This represented 90% of the students enrolled for the course. At the second distribution (i.e. t₁), 73 unspoilt responses were received. This figure, in turn, represented 88% of students enrolled for the course that year. In both years, statistical tests were carried out to test for self-selection bias between students who presented themselves to take part in the survey and those who did not. First, a Mann-Whitney U (M-W U) test was used to test the statistical significance of the difference in the variable students’ examination performance between students who had completed the questionnaire and those who had not. This test revealed no significant difference ($\alpha = 0.05$) between those who responded to the questionnaire and those who did not for both years. In addition, a Chi-square test, carried out on the discrete variable gender, supported the non-response bias finding with respect to students’ examination performance. It also revealed no significant difference ($\alpha = 0.05$) between those who responded to the questionnaire and those who did not at both t₀ and t₁.
To help guide the collection of evidence that cooperative learning is more effective than simple group learning at enhancing accounting students’ interpersonal and communication skills, and thereby functions more effectively as a model for a successful interface between academic and professional education and training in accounting, this study empirically tests a number of hypotheses. Each of the following hypotheses represents an individual skill included in the category interpersonal and communication skills:

H01 there are no significant differences in the attitudes regarding enhancement of *verbal communication skills* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H02 there are no significant differences in the attitudes regarding enhancement of *building and maintaining trust with colleagues* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H03 there are no significant differences in the attitudes regarding enhancement of *leadership skills* between accounting students who have experienced group learning and those who have experienced cooperative learning;

H04 there are no significant differences in the attitudes regarding enhancement of *negotiating/persuasion skills* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H05 there are no significant differences in the attitudes regarding enhancement of *listening skills* between accounting students who have experienced group simple learning and those who have experienced cooperative learning;

H06 there are no significant differences in the attitudes regarding enhancement of *tolerance of alternative points of view* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H07 there are no significant differences in the attitudes regarding enhancement of *questioning skills* between accounting students who have experienced group simple learning and those who have experienced cooperative learning;

H08 there are no significant differences in the attitudes regarding enhancement of *conflict-resolution skills* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H09 there are no significant differences in the attitudes regarding enhancement of *their ability to get on with other people* between accounting students who have experienced simple group learning and those who have experienced cooperative learning;

H10 there are no significant differences in the attitudes regarding enhancement of *their ability to debate issues critically* between accounting students who have experienced simple group learning and those who have experienced cooperative learning.

**Analysis of Results**

An analysis of certain demographic variables pertaining to both cohorts revealed homogeneity of variance in terms of gender, cultural background and age. A breakdown of these details is set out on Table 2.

Table 3 presents the mean responses for both cohorts together with the results of a Mann-Whitney U test employed to determine whether there are significant differences in the perception of skills enhancement between the control group and the experimental
group. In terms of the mean responses, it is encouraging to note that the students in both cohorts have returned high ranking responses. Indeed, the mean responses for both are well above average in respect of all the skills identified. Further, it is interesting to note that, with the exception of conflict resolution skills, students in the cooperative learning cohort returned a higher mean response than the students in the simple group learning cohort.

Table 2. Student demographics

<table>
<thead>
<tr>
<th>Panel A. Gendera</th>
<th>Cohort 0b</th>
<th>Cohort 1c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B. Nationalitya</th>
<th>Cohort 0b</th>
<th>Cohort 1c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>British/Irish</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>Outside the British Isles</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel C. Agea</th>
<th>Cohort 0b</th>
<th>Cohort 1c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>20–25</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>26 or above</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>100</td>
</tr>
</tbody>
</table>

aNo significant difference was found between the two cohorts in respect of gender, nationality and age at 5%
bCohort 0 experienced simple group learning at t0.
cCohort 1 experienced cooperative learning at t1.

Table 3. Mann-Whitney U tests of differences in attitudes to skills development between accounting students experiencing group learning and those experiencing cooperative learning

<table>
<thead>
<tr>
<th>Skills development</th>
<th>Mean responsesa</th>
<th>Mann-Whitney u-test statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Groupb</td>
<td>Cooperativec</td>
</tr>
<tr>
<td>The group/cooperative learning approach enabled me to enhance the following skills:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication skills</td>
<td>3.76</td>
<td>4.07</td>
</tr>
<tr>
<td>Building and maintaining trust with my colleagues</td>
<td>3.59</td>
<td>4.11</td>
</tr>
<tr>
<td>Leadership skills</td>
<td>3.70</td>
<td>4.08</td>
</tr>
<tr>
<td>Negotiating /persuasion skills</td>
<td>3.71</td>
<td>3.99</td>
</tr>
<tr>
<td>Listening skills</td>
<td>3.90</td>
<td>4.21</td>
</tr>
<tr>
<td>Tolerance of alternative points of view</td>
<td>3.87</td>
<td>4.16</td>
</tr>
<tr>
<td>Questioning skills</td>
<td>3.80</td>
<td>3.95</td>
</tr>
<tr>
<td>Conflict-resolution skills</td>
<td>3.76</td>
<td>3.68</td>
</tr>
<tr>
<td>Ability to get along with other people</td>
<td>3.90</td>
<td>4.10</td>
</tr>
<tr>
<td>Ability to debate issues critically</td>
<td>3.76</td>
<td>4.10</td>
</tr>
</tbody>
</table>

a(5 = strongly agree through to 1 = strongly disagree).
bWhere students have participated in simple group learning; n = 79.
cWhere students have participated in cooperative learning; n = 73.
dSignificant at 1%.
eSignificant at 5%.
When a Mann-Whitney U test is applied to the data to determine if the differences in mean responses were significant, the results indicate that the Z-statistic is statistically significant for seven skills at $P = 0.01$, with a further two significant at $P = 0.05$. The one exception is conflict resolution skills for which the Z-statistic is not statistically significant. Given that statistically significant differences were found in perceptions of skills enhancement between the two groups of students in nine out of the ten categories identified, the null hypotheses of no difference is rejected for $H_01$ through to $H_07$ as well as for $H_{09}$ and $H_{10}$. However, since no significant difference was discovered in respect of conflict-resolution skills, $H_{08}$ cannot be rejected. Therefore, it would appear that students who have experienced cooperative learning believe that their verbal communication skills, their ability to build and maintain trust with colleagues, their leadership skills, their negotiating/persuasion skills, their listening skills, their tolerance skills, their questioning skills, their ability to get along with other people and their ability to debate issues critically have improved more significantly than those of students who have experienced simple group learning. In short, the findings reveal that, while students appear to appreciate the contribution that both approaches make to enhance their interpersonal and communication skills’ development, those who have participated in the more structured cooperative learning environment are significantly more positive about their experience. To analyse this phenomenon, the study addresses each of the skills identified in the hypotheses and proffers a possible explanation for the test results.

The cooperative learning requirement to work with colleagues who are not of one’s choosing and therefore not necessarily friends, may have contributed to the development of verbal communication skills and the ability to get along with people insofar as group members probably had to put more effort into organising group management activities and getting their points of view across in group discussions. Moreover, working with colleagues of varying academic abilities in a cooperative learning environment may have provided the group with more diverse perspectives than would have been the case had four, probably like-minded, friends formed a group. To this end the group members probably had to display greater tolerance of alternative points of view and, say in the case of the more able group members, maybe persuade and win over their less able colleagues to their way of thinking. However, when presented with their more able colleagues’ view point, the less able students may have been more inclined to question their own ideas and see problems and issues from a completely new perspective. More generally, intentional group formation and mixing students’ abilities within groups would probably generate increased discussion, arising from new and diverse perspectives and thereby serve to enhance listening skills and develop students’ ability to debate issues more critically.

The recommendation within the cooperative learning approach that every group member be given the opportunity to act as the group facilitator ensures that the leadership function is distributed equitably throughout the group. In so doing, all of the group members have the chance to, inter alia, structure and lead group discussions. The positive impact of this recommendation may be reflected in the high mean response returned for the statement that cooperative learning enhances leadership skills and the fact that the cooperative learning cohort believes that their learning approach enhanced their leadership skills more significantly than students who were involved in simple group learning where no recommendation to appoint a leader exists. Following on from this, to be an effective leader, group members have to gain colleagues’ respect and create an environment of mutual trust and confidence. Accordingly, this may explain why the cooperative learning cohort returned such a high mean response in respect of the statement on building and maintaining trust with colleagues and why this response was significantly more positive than
that of the simple group learning cohort. Indeed it would not be unreasonable to assume that the roles of facilitator, coordinator, recorder and monitor, which it was recommended the cooperative learning cohort undertook on a rotational basis and which are not present in the simple group learning approach, contributed to their positive responses in respect of the enhancement of other skills, namely verbal communication skills, persuasion skills, tolerance skills and questioning skills, as well as the ability to get along with other people.

With respect to the one area where no significant difference was reported, i.e. conflict resolution skills, there is every likelihood that the requirement of the group members to devise and agree a memorandum of understanding at the outset and to attend regular group meetings minimized the opportunity for group conflict to arise. Moreover the involvement of the instructor in dealing with any contentious issues arising would almost certainly have reduced the instances of conflict. As a consequence, group members may have had fewer opportunities to exercise their conflict resolution skills. Indeed, the finding with respect to conflict resolution skills complements the other findings insofar as improved verbal communication, listening, negotiating and tolerance skills, not to mention the increased ability to get on with others, would have lessened group discord and disharmony so that conflict resolution skills would not have been required to the same extent.

Conclusion

The growing demand among national and international accountancy training bodies for accounting graduates who possess certain interpersonal and communication skills, has led accounting educators to reflect on learning models that best meet this requirement. One such model which may bridge this interface between academic accounting and professional education and training in accountancy by enhancing accounting undergraduates’ interpersonal and communication skills is cooperative learning. Further, as well as equipping students with skills which will serve them well in their professional careers; cooperative learning contributes to the transition between full-time study and work by providing students with the opportunity to operate in groups rather than on an individual basis. In so doing, it reflects accountancy working practices which are often encountered in the profession.

The findings from the current study provide strong support for the view that cooperative learning enhances students’ interpersonal and communication skills. They reveal that students who have participated in cooperative learning believe that their interpersonal and communication skills have been enhanced considerably as a consequence of this pedagogy. Moreover, their attitude to skills enhancement is significantly more positive than that of their colleagues who experienced a less structured group learning approach. The one exception is conflict resolution skills for which the difference between the two groups is not significant. However, this finding is in keeping with the others in that improvement in verbal communication skills, listening skills and tolerance skills, for example, would, more than likely, reduce instances of conflict within the group. Therefore, it would appear that participants in the cooperative learning experience consider structured features such as intentional small group formation of mixed abilities, instructor intervention, devising a memorandum of understanding and adopting purposeful roles within the group significant in developing skills which are demanded by professional training bodies.

However, cooperative learning is not without its shortcomings. For example, from the student’s perspective, the inability to prepare for or attend group sessions because of other responsibilities can be a common problem. This often arises as a consequence of students taking on part-time employment to help finance their university education, or family commitments, especially among mature students. Indeed, in the current study a number
of students drew attention to this issue in the question devoted to free-form comments at the end of the survey instrument. Drawbacks in implementing a cooperative learning environment can also arise for the educationalist. These may include, for example, administrative and opportunity cost implications arising out of time spent addressing the issues of group formation and management. Furthermore, the administrative burden placed on the instructor in a cooperative learning environment will inevitably be greatest when larger class sizes are involved. However, while it is accepted that the implementation of cooperative learning requires more commitment and organisation on the part of the students and the instructor than the adoption of simpler group learning, the significant difference reported here in students’ perceptions of the skills enhancement arising out of cooperative learning offers reassurance to both educationalists and students alike and provides justification for the additional effort.

In terms of providing linkage between academic accounting and professional education and training in accountancy, the adoption of cooperative learning can produce significant benefits on two levels. First, in the immediate academic context, students’ knowledge base and cognitive ability may profit from alternative points of view expressed within the group as well as from the clear and cogent expression which they may be required to provide when conveying their own opinion. Further, the requirement to structure study patterns to accommodate others within the group may benefit the less well-organized students across their range of studies. Second, students’ long-term career development will be well served by the enhanced interpersonal and communication skills which cooperative learning appears to deliver. Prospective accountancy employers and training bodies, united in their desire to recruit accounting graduates with good interpersonal and communication skills, should appreciate the fact that they do not have to devote valuable resources to providing this type of training. Moreover, intentional group formation, which is a key component of cooperative learning, provides students with experience of a real-world situation where individuals usually have little say in selecting the people with whom they work. This interaction with university contemporaries in a group context, to achieve a joint goal, should ensure that accounting graduates will probably be undaunted by the prospect of teamwork which is such a salient feature of today’s accountancy profession.

Further Research

It must be acknowledged that the findings of this study are based on self-generated data rather than a more objective measure of skills enhancement and, as such, may reflect some degree of over- or under-estimation by respondents. To this end, care must be taken not to overreach the findings presented in the current study. Furthermore, the possibility of a halo effect causing errors in the reported students’ attitudes to skills development should also be acknowledged (see for example, Cooper, 1981; Pike, 1999; Feeley, 2002). A halo effect could have resulted in students who were exposed to the cooperative learning environment deviating towards an overall positive impression of the experience thereby reporting higher scores in terms of skills attainment. Future research in this area could consider the measurement of additional constructs unrelated to simple or cooperative learning structure in an attempt to identify whether a halo effects exists or not.

However, the authors are of the opinion that a truly objective measure of skills enhancement would be difficult to secure in that evaluating most of the skills identified in the study requires someone’s opinion, be it tutor, peer or self. With this in mind, future research could adopt a similar methodology to that applied to the current study and extend it to include skills evaluation based on peer and/or tutor opinion. Alternatively, the findings in the current study could be re-visited at a future date by surveying the respondents
who took part in the cooperative learning experience and requiring them to re-assess, retrospectively, the adequacy of the interpersonal and communication skills they acquired as undergraduates in the light of their postgraduate professional accountancy experience. More generally, surveys of opinion among recently qualified accountants might elicit interesting information on areas for change and development in cooperative learning.

Notes
1Indeed the title ‘Accounting’ which is used to describe undergraduate programmes in the UK, is distinguished from the title ‘Accountancy’ which applies to professional training in that the former includes more academic content in its syllabus whereas the content of the latter is more technical and practical.
2The six main professional accountancy bodies in the British Isles are all members of IFAC (i.e. The Institute of Chartered Accountants in England and Wales, The Institute of Chartered Accountants of Scotland, The Institute of Chartered Accountants in Ireland, The Association of Chartered Certified Accountants, The Chartered Institute of Management Accountants and The Chartered Institute of Public Finance and Accountancy).
3Given that the Likert scale applied to the statements ranges from (5) representing ‘strongly agree’ through to (1) representing ‘strongly disagree’, a mean response greater than 2.5 would indicate an above-average ranking of skills enhancement.

References


