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THE EFFECT OF THE WORK ENVIRONMENT ON ACCOUNTING STUDENTS’ MORAL REASONING AND DEVELOPMENT

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ABSTRACT

Puxty et al. (1994) claim that professional accountants are induced to act ethically through two aspects of their socialisation, the education process, and the influence of work experience and role models who show what it means to be ethical. The education of accountants is not simply a matter of becoming technically competent, it is also a process of internalising accepted norms of professional conduct. Student accountants learn acceptable behaviour by learning the principles of good conduct in their education, and receiving advice and observing what significant others do in the workplace. The purpose of this paper is to explore the effect of the work environment on accounting students moral reasoning and development by comparing the DIT P-scores of accounting students pre and post cooperative education. Cooperative education is an industry placement program where students are required to work in commerce and industry for one year. Findings indicate that DIT P-scores decrease during cooperative education suggesting that accounting students, whilst in the work environment, do not reason according to their capability as measured by their pre-test scores.

Key words: Cooperative Education, Selection Socialisation, Accounting Ethics, Accounting Education.
INTRODUCTION

Kohlberg (1969) states that moral reasoning is a distinct cognitive domain that can be influenced by the interaction that occurs in one’s environment. If moral reasoning can be influenced through interaction with one’s environment, it is reasonable to suggest that work and the associated contextual factors may be one factor influencing moral development. For example, Trevino (1986) speculates that individuals, who are required to engage in leadership positions and are allocated responsibility for the frequent resolution of moral conflicts, are more likely to continue to advance in cognitive moral development. Business managers must be sensitive to group attitudes and by taking the point of view of another, moral development is likely. However, in accounting, an alternative school of thought is developing. This school contends that the socialisation-effect in public accounting firms discovered by Ponemon (1992a) is more likely to stymie rather than promote moral development. The purpose of this paper is to explore the impact of cooperative education, a work placement program for accounting students, on their moral judgement abilities.

COGNITIVE MORAL REASONING AND DEVELOPMENT

According to Baker (1996), research in accounting ethics has generally taken one of two paths, the ‘sociological view’ or the ‘psychological view’. Ethical studies from the sociological view are often embroiled in the definition and meaning of professionalism with particular regard to issues surrounding the independence of the accountant. The psychological view, the path adopted in this paper, centres on a person’s ethical beliefs and how a person’s belief system controls the resolution of ethical conflict. Studies in this paradigm are founded on the psychological model developed by Lawrence Kohlberg (1969), which posits that a persons moral
judgement develops over time through a series of six stages, where movement to the next stage is dependent on the person’s belief system.

The application of Kohlberg’s theory of cognitive moral reasoning and development (CMD) in business and the accounting disciplines are extensively addressed in many articles. See for example, Ponemon 1990: Ponemon and Gabhart 1993; Icerman et al 1997; Lovell 1995. Kohlberg (1969) defined three levels of moral reasoning. Within each level, are two stages of moral development with each successive stage representing a higher level of reasoning regarding the definition and nature of right and wrong. In general, the stages proceed from self-orientated thinking to an abstract principle orientation. A brief description of the six stages of moral development and the motivations for arriving at a final judgement are presented below:

**Pre-Conventional Level - Focus on self**

Stage 1: Represents a person who acts from fear of punishment and authority. A stage 1 person will act ethically only because of the consequences of wrongful behaviour.

Stage 2: Represents a person seeking self-gratification. A stage 2 person is motivated to act ethically when he or she believes that doing so will be more beneficial than not doing so.

**Conventional Level - Focus on relationships**

Stage 3: Represents a person who seeks approval from others by acting in ways that are expected of them by others. A stage 3 person is stimulated to act in accordance with stereotypical behaviour appropriate to their role and responsibilities. Awareness and concern for others becomes evident at this stage.
Stage 4: Represents a person who adheres to moral codes or codes of law and order. A stage 4 person recognises that laws are necessary to assure organisational and social cohesion.

Post-Conventional Level – Focus on personally held principles

Stage 5: Represents a person who shows concern for others and for the broader social welfare. A stage 5 person recognises that they have a social responsibility to act ethically and justly for the welfare of society.

Stage 6: Represents a person whose actions are motivated by moral principles founded on philosophical and religious ethics. A stage 6 person relies entirely on conscience for moral judgement.

When a person is faced with a moral dilemma, the stage of moral development guides attention to the most important considerations by prioritising the conflicting moral claims of the various stakeholders, and by integrating information so as to arrive at a judgement of what ought to be done. In this sense, a stage of moral development helps one to formulate the basis of decision-making, and is concerned with how judgements are made and why one formulated the judgement (Kohlberg 1969). A stage of moral development should be distinguished from ethical philosophies that establish principles for determining right from wrong, to the process one follows in making decisions with ethical implications. The objective of moral development theory is not to judge or classify right from wrong, but rather to understand the cognitive reasoning processes an individual follows in resolving an ethical dilemma. Furthermore, moral judgement should not be confused with moral action. Kohlberg’s model of cognitive moral reasoning and development is a theory of the human decision making process prior to ethical behaviour (Arnold and Ponemon, 1991). According Robin and Reidenbach (1996), the CMD construct was not developed to predict ethical
behaviour but to understand the motivations or reasoning of resolving moral problems. Therefore, caution should be undertaken not to overestimate the relationship between moral reasoning and moral behaviour.

Kohlberg (1971) states that most people reason at a single dominant stage and progression to the next stage requires exposure to an environment, which stimulates moral reasoning. Empirical research shows that without significant intervention, or an appropriate environment, the majority of the adult population will never surpass the conventional level (stages 3 and 4) of Kohlberg’s model.

A number of studies have examined and compared the moral judgement levels of various groups including the accounting profession. According to Gaa (1995) the moral reasoning of accountants differ in a number of ways from both the general population and from other occupational groups. Generally, the degree of moral development of accountants resembles the general population more than it does groups with comparable educational and occupational status. This is unfortunate because education is one factor that has shown to have a consistent and positive correlation with moral development (Rest 1986b) In other words, the longer one remains in school, the more likely that moral reasoning will develop. The relationship between moral development and education is apparent in other educational groups but not accounting.

Similar conclusions are drawn from sample populations of accounting students (Armstrong 1987; St. Pierre et al. 1990; Lampe and Finn 1992; Ponemon 1992a; Ponemon 1993a; Shaub 1994). Lampe (1996) suggests that one reason to explain the
findings in accounting, is that the socialisation process in both college and practice leads accountants to utilise primarily rule-based stage 4 reasoning in their professional decisions, even when post-conventional cognitive skills have been developed. The acquisition of a strong stage 4 orientation is a reflection of the accounting profession’s internalisation of GAAP and rules of compliance.

**SOCIALISATION-EFFECT**

Models of ethical decision-making commonly recognise contextual factors, such as organisational or professional norms, as having a significant impact on behaviour in business contexts (Trevino 1986). Elm and Nicholls (1993) suggest that the organisational context in which one works can contribute to moral development and that its influence could be in the direction of either higher or lower levels of moral reasoning skills, depending on the individual’s self monitoring propensity and the actual experiences of the organisation. Similarly, Jones and Hiltebeitel (1995) contend that moral attitudes change as new accountants assimilate the culture of the profession and their behaviour can be influenced by the conduct of superiors and accepted industry practice. One implication is that new accountants will only make morally defendable decisions if the business environment supports that view. These authors are referring to the concept of ‘socialisation’. Bebeau et al. (1985) define socialisation as a process whereby members are socialised into certain responses where one tends to give the ‘official position’, rather than their individual judgement.

The early work of Arlow and Ulrich (1980) noted the potential impact of the socialisation-effect. They found that ethics education improves the ethical awareness of business students, but the effect is not persistent. A follow-up study four years later found that test scores were generally consistent with levels prior to undertaking
the ethics course. It appears the impact is only temporary, as once the stimulus is removed, students revert to previously held values. Arlow and Ulrich (1985) suggest that this may be accounted for by the socialisation process students undergo as they move into the world of business.

Shaub (1989), Sweeney (1995) and Ponemon (1990, 1992a) discovered that the level of moral development decreases steadily in the manager and partner ranks of public accounting firms.\(^1\) Ponemon (1992a) states that the moral reasoning levels of accountants, on average, decrease and become more homogeneous as they progress to higher levels within the firm hierarchy. Ponemon (1990) suggests that selection-socialisation within the public accounting profession may cause the net decrease in moral reasoning abilities. Evidence of selection-socialisation suggests that employees who receive promotions are likely to be perceived by management as having personal characteristics commensurate with the culture and philosophy of the organisation. Therefore, promotions are awarded to those with similar values and who share common views with their senior management. While senior management are promoting like-minded employees, accountants are simultaneously and unwittingly adopting the ‘culture’ of the firm. In other words, attitudes change and resemble more closely the culture of the profession as they progress to senior ranks.

The concept of selection-socialisation suggests that accountants with lower levels of moral development may have a higher retention rate in public accounting firms (Bernardi and Arnold 1997). This occurs because senior managers promote only those accountants with a common set of ethical values and beliefs (Ponemon 1992a). If this

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\(^1\) Etherington and Schulting (1995), in a study of management accountants, did not find an association between position levels and levels of moral reasoning. Similarly, Bernardi and Arnold (1997) found the difference in average levels of moral development for different staff levels to be insignificant.
is the case, one quickly learns that success in the form of promotion, depends in part upon assimilating organisational values espoused by the senior partners, and according to Ponemon (1992a), partners and managers tend to be at the conventional level (stage 3) of moral reasoning. The purpose of this paper is to examine the effect of the work environment and the related socialisation-effect on accounting students’ moral reasoning and development during their cooperative year.

**DATA COLLECTION**

The accounting degree program from which the subjects are selected is conducted at a large city-based university with a substantial population of international students, predominantly South East Asian nationals. The degree program complies with the accreditation requirements of the two major professional accounting associations and graduates of the program are eligible to become members of either of the professional accounting bodies.

The degree program is completed over a period of four years, comprising two years of academic study, one year of work experience (cooperative education) followed by a return to the university for the final year of academic study. The degree program is typical of an Australian university, except for cooperative education. The cooperative education program is an industry placement program, in which full-time students undertake one year of employment in business to gain first-hand industry experience, and to apply the theory learnt in the first two years of the degree program. Cooperative education students are full-time employees and subject to the same terms and conditions as all other employees of the respective organisation. Cooperative education effectively extends the degree program from three years, which is typical of an accounting degree, to four years. At the completion of the
cooperative education year, students return to the University for the final year of academic study.

Invitations to participate in the study were extended to all students in the degree program resulting in 97 acceptances. Student responses were organised into four groups, with each group representing a different year level of the degree program. This process resulted in 18 first year students, 20 second year students, 12 cooperative education students and 47 final year students. The data collection process was designed to incorporate a wide range of students, so that the sample set is a reasonable representation of all students in the degree program. In brief, subjects are full-time accounting students ranging in age from 18 to 25. Gender is equally divided among the sample group with most students possessing minimal work experience until cooperative education. Group 3, comprising cooperative education students were aged between 20 to 22 and employed in different areas of industry and commerce including accounting firms.

All students completed the test instrument three times throughout the year resulting in measurement points at the beginning and end of every semester of the degree program (see Table 1). Data collected at the beginning of the year is referred to as the pre-test score; data collected in the middle of the year is referred to as the mid-test score; and data collected at the end of the year is referred to as the post-test score. The mid-test scores represent the post-test score for semester one, and the pre-test score for semester two. Three data collections and four experimental groups comprise a total of 12 data collection points numbered P_{01} to P_{12}. Data was collected from the same groups of students, making this study a longitudinal, matched pair design.
Table 1 Experiment Design

<table>
<thead>
<tr>
<th>Group</th>
<th>Sample size</th>
<th>Pre-test Score</th>
<th>Treatment</th>
<th>Mid-test Score</th>
<th>Treatment</th>
<th>Post-test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>18</td>
<td>$P_{01}$</td>
<td>Semester 1</td>
<td>$P_{02}$</td>
<td>Semester 2</td>
<td>$P_{03}$</td>
</tr>
<tr>
<td>Group 2</td>
<td>20</td>
<td>$P_{04}$</td>
<td>Semester 3</td>
<td>$P_{05}$</td>
<td>Semester 4</td>
<td>$P_{06}$</td>
</tr>
<tr>
<td>Group 3</td>
<td>12</td>
<td>$P_{07}$</td>
<td>Semester 5</td>
<td>$P_{08}$</td>
<td>Semester 6</td>
<td>$P_{09}$</td>
</tr>
<tr>
<td>Group 4</td>
<td>47</td>
<td>$P_{10}$</td>
<td>Semester 7</td>
<td>$P_{11}$</td>
<td>Semester 8</td>
<td>$P_{12}$</td>
</tr>
</tbody>
</table>

Group 1 - Year Level 1
Group 2 - Year Level 2
Group 3 - Year Level 3
Group 4 - Year Level 4

$P_n$ – DIT P-score (test score)

THE TEST INSTRUMENT

While Kohlberg’s primary interest was to devise a theoretical system to represent the logic of moral thinking, Rest (1986a) developed the Defining Issues Test (DIT), a valid, objective, reliable measurement instrument of CMD based on the six stages of moral development defined by Kohlberg (Welton et al. 1994). The short version of the DIT, comprising three dilemmas, was used in this study. The DIT presents subjects with moral dilemmas and a number of factors that the subject must consider in resolving each dilemma. The importance given to the ‘factors’ emanates in the P-score, “P” standing for ‘principled morality’. The DIT P-score reflects the number of times that an item associated with stage 5 or 6 is chosen as the most important item in determining a course of action in a moral dilemma (Rest 1986a). The DIT P-score is expressed as a percentage and can range from 0 to 95. In the extremes, a DIT P-score of zero indicates that considerations, or factors that motivate the subject’s resolution of a dilemma are consistent with the first four stages of Kohlberg’s theory. A score of 95 indicates that all considerations motivating the resolution of the dilemma are consistent with stages 5 and 6 of Kohlberg’s theory (Clarke et al. 1996). In effect, the
DIT P-score represents the probability of a post-conventional (stages 5 and 6) response to a moral problem.

The DIT contains reliability and consistency checks to prevent subjects from artificially or carelessly manipulating the DIT P-score. If a subject fails any one these checks, the DIT is rendered invalid and unusable for analysis. Rest (1986a) indicates that a loss rate of between 5-15% is typical of employing the DIT. In this study, the loss rate is 13.4%, which is consistent with Rest’s (1986a) standard loss rate. The loss rate combined with the attrition rate of 12.6% (failing to submit the test instrument), results in an overall useability rate of 74%.

**FINDINGS**

Changes in the DIT P-score are analysed to determine trends in moral development of accounting students throughout the four-year degree program. The mean DIT P-scores for all twelve data collection points are displayed in Table 2 and Figure 1 below. An analysis of Table 2 indicates that the DIT P-scores have increased by 8.63 percentage points (27.50 to 36.13) from the point of entry into the degree program, to the point of departure. However, the trend during the four-year period is inconsistent. The DIT P-scores increase in the first two years of the program by 3.78 and 8.54 percentage points respectively. However, in year three, cooperative education, the scores declined by 7.38 percentage points from 41.82 to 34.44. Subsequent to cooperative education, DIT P-scores continue to decline over the summer break through to the beginning of the final year of study. However, the DIT P-scores once again increase when students return to academic study and the university environment. In short, DIT P-scores increase in every semester that students
participate in academic study, but decrease during the two semesters of cooperative education, when students are in the work environment.

Table 2 DIT P-Score Per Semester Per Year

<table>
<thead>
<tr>
<th>Group</th>
<th>Semester</th>
<th>Round</th>
<th>P (n)</th>
<th>DIT P-Score</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-test</td>
<td>P₀₁</td>
<td>27.50</td>
<td></td>
<td>3.17</td>
</tr>
<tr>
<td>2</td>
<td>Mid-test</td>
<td>P₀₂</td>
<td>30.67</td>
<td></td>
<td>0.61</td>
</tr>
<tr>
<td>3</td>
<td>Post-test</td>
<td>P₀₃</td>
<td>31.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pre-test</td>
<td>P₀₄</td>
<td>31.67</td>
<td></td>
<td>5.61</td>
</tr>
<tr>
<td>3</td>
<td>Mid-test</td>
<td>P₀₅</td>
<td>37.28</td>
<td></td>
<td>2.93</td>
</tr>
<tr>
<td>4</td>
<td>Post-test</td>
<td>P₀₆</td>
<td>40.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pre-test</td>
<td>P₀₇</td>
<td>41.82</td>
<td></td>
<td>-3.30</td>
</tr>
<tr>
<td>5</td>
<td>Mid-test</td>
<td>P₀₈</td>
<td>38.52</td>
<td></td>
<td>-4.08</td>
</tr>
<tr>
<td>6</td>
<td>Post-test</td>
<td>P₀₉</td>
<td>34.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Pre-test</td>
<td>P₁₀</td>
<td>29.78</td>
<td></td>
<td>5.59</td>
</tr>
<tr>
<td>7</td>
<td>Mid-test</td>
<td>P₁₁</td>
<td>35.37</td>
<td></td>
<td>0.76</td>
</tr>
<tr>
<td>8</td>
<td>Post-test</td>
<td>P₁₂</td>
<td>36.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 Mean DIT P-scores
As stated above, the DIT P-scores continue to decline after the post-test was administered at the end of semester two of cooperative education until the beginning of the following and final academic year. It appears that cooperative education has a hangover-effect. This is not surprising, as cooperative education requires students to work for a period of one year from the commencement of their employment. The one-year period normally ends in December, but some students continue work until the beginning of the following semester which in the first week of March. Even though post-test was administered in November, it is probable that many cooperative education students continued to work well after administering the post-test, contributing to the hangover-effect.

The DIT P-scores increase again at the end of semester one in year four suggesting that students require at least one semester as an adjustment period for DIT P-scores to revert towards pre cooperative education levels. In these circumstances, the decline in DIT P-scores is reversed only when students return to the university and assimilate the education environment as opposed to the work environment. The DIT P-scores continue to increase during semester two of year four, but the amount of recovery at the point of graduation is lower than the mean DIT P-score recorded at the end of year 2 (pre cooperative education). The research question is thus restated:

What impact does cooperative education have on accounting students’ cognitive moral reasoning and development?
Tests of Moral Development in Cooperative Education

The work environment, interaction with colleagues and positions that hold responsibility, are all factors that can influence the development of moral reasoning (Trevino 1986). Ponemon and Glazer (1990) found that DIT P-score levels in public accounting firms increase until reaching the manager level. Further investigations of moral reasoning levels in public accounting firms found an association between moral reasoning and position levels, wherein moral stages decrease steadily in the manager and the partner ranks (Shaub 1989; Ponemon 1990, 1992a). In other words, the moral reasoning of accountants decrease as they progress to higher levels within the firm hierarchy. Ponemon (1990) suggests that the self-selection or selection-socialisation process within the public accounting profession may cause the net decrease in measured moral cognition. Lampe and Finn (1992) found in their study of auditor decision processes, that the socialisation process appears to be present in the first two years of public accounting experience. With rapid turnover in the first two years of employment, students self-select and employers counsel out auditors with too high, or too low, a level of moral development. The accounting students involved in this study receive up to one-year of work experience as part of their cooperative education. Considering the duration that students are exposed to the work environment (less than two years), Ponemon’s socialisation-effect is not expected to have a significant effect on DIT P-scores. Thus the following hypothesis is stated in the null form:

\[ H_0 \] The DIT P-scores of accounting students are not significantly associated with the level of work experience received by students as part of their cooperative education.
Two separate analyses are performed to test this hypothesis. The first analysis examines the change in DIT P-scores of students during the cooperative education year to determine whether the decline in DIT P-scores are statistically significant. The second analysis compares the moral reasoning levels of all students with their level of responsibility or seniority within their respective employment. This analysis will determine whether the socialisation-effect exists among accounting students, that is, whether there is an association between declining DIT P-scores and seniority levels. However, the problem with selecting seniority or the level job responsibility as the dependent variable is that most students in this study are employed at a similar level. Demographic data collected in the test instrument indicates that all but three students are employed at the employee level. Therefore, it is not possible to test for a socialisation-effect when there is no discrimination in seniority among sample members. An alternative variable to seniority is the subject’s length or amount of work experience. The assumption in using time as a surrogate for seniority, is that the longer one is employed in industry, the more likely one is to assimilate the cultural values of the work environment.

The changes in the DIT P-scores for cooperative education students are presented in Table 3 below and are analysed for significant differences between the semesters. The mean DIT P-scores progressively decline throughout the year and the ANOVA reveals that the difference in tests are not statistically significant, $F(2, 26) = 0.45$, $p>.05$. To confirm the analysis of variance, repeated sample $t$-tests were also performed. The difference in P-scores from P07 to P08, $t(8) = 0.14$, $p>.05$, two-tailed; P07 to P09, $t(6) = 0.92$, $p>.05$, two-tailed; and P08 to P09, $t(6) = 0.92$, $p>.05$ two-tailed, are not significant.
The second analysis for testing $H_0$ compares the mean DIT P-scores with the students’ amount of work experience. This comparison is conducted for all students who participated in this study and is not restricted to cooperative education students who will have accumulated up to one year of work experience. The means and standard deviations are presented in Table 4 below. The mean DIT P-score declines gradually with the amount of work experience until one attains 5 years work experience, at this point DIT P-scores increase. The ANOVA revealed that the DIT P-scores are not affected by the amount of work experience $F(4, 211) = 0.20, p > .05$. Similarly, the Pearson correlation revealed that the length of work experience is not statistically related to DIT P-scores $r = +.018, n = 216, p > .05$, two-tailed. Likewise, an independent sample $t$-test comparing the mean DIT P-scores of students with work experience ($M = 34.31, SD = 17.81$), and students without work experience ($M = 3.38, SD = 20.47$), did not reveal a significant difference, $t(214) = -0.35, p > .05$, two tailed. Thus, $H_0$ is rejected and it is concluded that the DIT P-scores are not related to work experience.

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Table 3 Cooperative Education Students DIT P-scores

<table>
<thead>
<tr>
<th></th>
<th>$P_{07}$</th>
<th>$P_{08}$</th>
<th>$P_{09}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M$</td>
<td>41.81</td>
<td>38.51</td>
<td>34.44</td>
</tr>
<tr>
<td>$SD$</td>
<td>13.36</td>
<td>17.96</td>
<td>20.68</td>
</tr>
</tbody>
</table>

$P_{07}$ – Pre-test  
$P_{08}$ – Mid-test  
$P_{09}$ – Post-test

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$^2$ Only 2 students have more than 5 years of accounting related work experience.
Table 4 DIT P-scores and Work Experience

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>Nil</th>
<th>&lt;1 year</th>
<th>1 to 2 years</th>
<th>2 to 5 years</th>
<th>&gt;5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>M</em></td>
<td>33.38</td>
<td>35.16</td>
<td>33.75</td>
<td>31.29</td>
<td>36.67</td>
</tr>
<tr>
<td><em>SD</em></td>
<td>20.47</td>
<td>20.00</td>
<td>13.82</td>
<td>14.46</td>
<td>21.85</td>
</tr>
</tbody>
</table>

The statistical analysis above reveals that the decrease in DIT P-scores during cooperative education is not significant. However, if the statistical analysis is extended to include a comparison of P₀₇ (beginning of cooperative education) with P₁₀ (commencement of final academic year), the difference in mean DIT P-scores are significant, *t*(47) = 2.05, *p* < .05, two tailed. Overall, if not for cooperative education, the DIT P-scores would have consecutively increased in every semester of the degree program. Therefore, the adverse impact of cooperative education (work experience) on DIT P-scores is believed to be a significant finding.

One might logically conclude that the decline in the DIT P-scores during cooperative education is the result of students reasoning abilities regressing to lower stages of moral development. However, a basic tenet of Kohlberg’s stage framework, is that moral development is sequential and invariant, which means individuals develop one stage at a time and do not regress. Therefore, moral reasoning regression cannot be accepted without contradicting the validity of Kohlberg’s theory. If individuals do not regress in the developmental process, what then is it about the work environment that negatively impacts DIT P-scores? The discussion below explores possible causes for this phenomenon.
The Work Environment

Cooperative education students do not appear to resolve ethical dilemmas at their cognitive moral capacity. The mean DIT P-score at the beginning of cooperative education is 7.38 percentage points higher than the DIT P-score recorded at the end of cooperative education, suggesting that cognitive moral capability (pre-test scores) is higher than that demonstrated during the post-test procedure. Thorne (2000, 2001) suggests that cooperative education students, like accountants, respond to social factors when formulating an ethical judgement, and respond to their self-interest in the exercise of professional judgement. It may be inferred that accounting students do not always resolve moral dilemmas using their most principled reasoning. It appears short-term contextual factors, like the work environment, may adversely affect DIT P-scores.

Reall et al. (1998) provide an interesting analysis upon which to elucidate the effect of the work environment on DIT P-scores. In the spirit of a competitive game situation, students took off their moral reasoning caps and put on their game faces. Their game faces involved exhibiting moral reasoning levels that were well below what they were capable of based on their DIT P-scores. It appears that participants use game rules to define appropriate boundaries of acceptable conduct, rather than a reliance upon what may or may not benefit or harm other players. In other words, participants use lower levels of moral reasoning than what their moral capability permits when taking part in the spirit of a competitive game. Derry (1989) refers to survival in the corporate arena as a matter of learning and playing by the ‘rules of the game’. By the time people have made it to the managerial level they have for the most part agreed to the rules of the game. The alternative is to opt out of the game and seek other employment. Weber
(1990a) suggests that in relation to managers, the influence of the corporate environment (organisational loyalty and bureaucratic structure) restricts the manager to stage 3 reasoning.

Consistent with the findings above, it is not unreasonable for cooperative education students to quickly assimilate the culture of the firm. Anecdotal evidence obtained from university staff indicate that most students anticipate full-time career positions with their cooperative education employer at the completion of the degree program. Therefore, it is probable that students will accept and adopt the prevailing culture of their employer organisation to enhance their permanent employment opportunity. If the culture of the firm typifies reasoning at stages lower than the student’s own stage development, this could be one cause of students’ displaying lower than expected DIT P-scores.

Lampe and Finn (1992) suggest that the socialisation process appears to be present within the first two years of public accounting experience. The findings in this study indicate that the socialisation-effect is immediate and lasting, at least until the student returns to the free, and thought challenging environment of the university. However, even though the DIT P-scores increased upon the students’ return to the university environment, the DIT P-scores never fully recovered to pre-cooperative education levels. The DIT P-score at the point of graduation (P₁₂) is 4.08 points lower (36.13 – 40.21) than the DIT P-score prior to cooperative education (P₀₆). It seems that the socialisation-effect is immediate, but the recovery is not.
Rest (1986b) claims that increases in moral development level-off after formal education stops. Therefore, unless members of this sample group continue with further education, their DIT P-scores will cease to increase and may never reach their pre cooperative education levels. One might argue that cooperative education should be banned to maximise students’ moral development potential before entering the profession. However, rather than banning cooperative education, the answer may lie in continuing education. Shenkir (1990) states that nurturing ethical behaviour is a lifelong process and ethics education should continue after graduation. From this perspective, Clarke et al. (1996) argue that continuing education programs have an important role to play in increasing the ethical reasoning abilities of accountants, particularly for small accounting firms that lack the resources for formal in-house training. In support of this view, Fisher (1997) discovered that principled reasoning on tax compliance issues is heightened during graduate education. Fisher (1997) speculates that more advanced analytical skills that are normally evident in graduate students are required to cope with the complexities of taxpayer dilemmas.

One factor that limits the generalisability of the findings in this study, is that each of the four groups of subjects comprise a different cohort of students therefore, the difference in test scores between the groups, may be due to differences in the sample members rather than real moral reasoning change. To this end, further research will benefit from a longitudinal design using the same group of subjects to investigate the moral reasoning abilities of accounting students’ pre and post graduation. Such an analysis will assist in determining the extent and impact of the socialisation-effect.
CONCLUSION

The findings in this study indicate that DIT P-scores increase every semester of the degree except cooperative education. Furthermore, they continue to decline until the beginning of the following year. One potential cause for this phenomenon is the socialisation-effect. This occurs when accounting students adopt the cultural values of the firm in resolving moral dilemmas which may be lower than the individual’s own level of moral development. Where the socialisation-effect was once assumed to occur with time, this study has discovered that the socialisation-effect on DIT P-scores is immediate but the recovery is not. In conclusion, it appears that accounting students will operate at different levels of moral reasoning in different contextual environments. A student may be perfectly capable of exercising considerable ethical maturity as demonstrated by their pre-cooperative education test scores, but may be influenced by the existent rules and norms of the work environment.
BIBLIOGRAPHY


