

# An Analysis Of The Tolerance For Ambiguity Among Accounting Students

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## ABSTRACT

*Tolerance for ambiguity is a personality characteristic that reflects the general feelings and attitudes of an individual toward ambiguity and ambiguous situations. Prior research has found accounting students to be significantly less tolerant of ambiguity than the general population, with female accounting students less tolerant than their male counterparts. The research on which this article is reporting aimed to examine the personality characteristic 'tolerance for ambiguity' among accounting students to determine whether those currently being attracted to the profession are still less tolerant of ambiguity than the norm as reported by prior research, taking into account the drive from the accounting profession to attract individuals to the profession who are effective communicators, who can think and act strategically, are able to solve unstructured problems, and are aware of business issues.*

*Tolerance for ambiguity was measured using the AT-20 scale, a widely used and validated instrument developed by MacDonald (1970). The results of this study confirm that students enrolled for accounting degree programmes are less tolerant for ambiguity (mean = 7.50) than students enrolled for other business programmes (mean = 8.16). Female students enrolled in accounting degree programmes were significantly less tolerant for ambiguity than their male counterparts.*

**Keywords:** Accounting; Personality Characteristic; Tolerance for Ambiguity

## INTRODUCTION

Because businesses operate in a dynamic environment, new demands are constantly placed on businesses and employees to adapt to changes. For accountants, too, these changes affect the skills and knowledge required to keep adding value in this fluid business environment with accountants doing less scorekeeping and more problem-solving to help achieve business success (Siegel, Sorensen, & Richtermeyer, 2003). Information technology, which is seen as one of the key drivers of change in the business environment, has dramatically affected the job of the traditional accountant (Albrecht & Sack, 2000), creating new opportunities and challenges (Hunton, 2002). Changes in regulations, like the Sarbanes-Oxley Act in the USA, have also changed accounting and auditing practices and permanently altered the roles and responsibilities of the profession.

As the roles of accountants have changed, so have the qualities that they should possess. Siegel (2000, p. 71) found that accountants' roles have changed from 'number crunchers and financial historians to business partners and trusted advisors.' Myers (2002), in interviews with several accountants who had assumed the role of chief financial officer (CFO), found that they were expected to be creative, motivating, energetic, and versatile individuals with strong communication and management skills. In addition to communication skills, major accounting firms and prominent accounting bodies have emphasised the importance of interpersonal and intellectual skills. New accountants must be able to identify and solve unstructured problems in unfamiliar settings and be able to comprehend an unfocused set of facts (Elias, 1999, p. 38; Palmer, Ziegenfuss & Pinsker, 2004). PricewaterhouseCoopers (2003, p. 7-8) argues that accounting students need an 'understanding of the complexity of business environments to support their ability to identify and solve problems with significant ambiguity in circumstances that include a significant amount of change.'

Despite efforts from the accounting profession to portray their members as having good interpersonal skills as well as being creative in solving problems, able to make decisions, plan for the future and be good communicators (Wessels & Steenkamp, 2009, p. 120), research has consistently confirmed that a derogatory and stereotyped perception of the accountant persists. Students perceive accountants to be number-oriented (Cohen & Hanno, 1993; Hunt, Anthony, & Intrieri, 2004; Jackling & Calero, 2006), fairly isolated (Oswick, Barber, & Speed, 1994; Coate, Mitschow, & Schinski, 2003; Heiat, Brown, & Johnson, 2007, p. 96), boring (Cohen & Hanno, 1993, Hunt et al., 2004; Byrne & Willis, 2005; Heiat et al., 2007, p. 96), score-keepers - or bookkeepers - (Albrecht & Sack, 2000; Sale, 2001; Jackling & Calero, 2006), formal and introverted individuals (Coate et al., 2003), concerned with detail (Hunt et al., 2004), and compliance-driven (Byrne & Willis, 2005). Researchers also have concluded that little or no progress has been made in dispelling the unflattering image of accountants despite the profession's representation of contemporary accounting practices as dynamic environments that require people with creativity and critical thinking skills (Fisher & Murphy, 1995; Mladenovic, 2000; Coate et al., 2003; Byrne & Willis, 2005; Wessels & Steenkamp, 2009).

Heiat et al. (2007) found that 41% of students select their degree programme before entering university and, further, 30% of students making this decision during their first year of study. They also identified several significant differences that exist between the perceptions of accounting students and other students. Non-accounting business students view accounting classes as less interesting and as having less frequent intellectual challenges than other business classes, while non-business students view accounting as a career involving menial job responsibilities and having limited interactions with people (Heiat et al., 2007, p. 92). Researchers also deduced that students choose specific degree programmes that they see as being compatible with their particular personal styles (Jackling & Calero, 2006; Saemann & Crooker, 1999, p. 2). If students therefore perceive accounting to be about repetitive tasks that are performed in a highly structured fashion to ensure compliance (Wessels & Steenkamp, 2009), the profession would typically appeal to students with personalities that are in line with these perceptions. Albrecht and Sack (2000) raised the concern that accounting programmes may attract students who view accounting as suited only to narrowly-focused technicians who enjoy routine tasks, while dissuading many others from considering accounting careers.

Individual psychological differences involve two related dimensions: personality and cognitive style. Kagan and Segal (1988) define personality as 'the total pattern of characteristic ways of thinking, feeling and behaving that constitute the individual's distinctive method of relating to the environment.' Personality refers to the attitudes or beliefs of individuals, while cognitive style refers to the ways or methods by which an individual receives, stores, processes, and transmits information (Gul, 1984, p. 264). Therefore, the individual personality type may be one of the determinants when students decide on a specific career. If, however, students have an incomplete or incorrect perception of a specific career, it may attract students whose personalities may not align clearly with the requirements of that profession - or worse - dissuade students from choosing a profession even though their personalities align closely with the desirable requirements of that profession. The personality type of students already enrolled in accounting programmes may also affect their ability to embrace the changes in skills and knowledge required in the modern business environment. This may cause students to become stressed or unhappy with the programme or lead them to resist changes to programmes that attempt to incorporate these new skills and knowledge requirements.

Tolerance for ambiguity is a personality characteristic that reflects the general feelings and attitudes of an individual toward ambiguity and ambiguous situations. A situation is likely to be perceived as ambiguous when it is uncertain, changing or unstable, or when it confronts the individual with new and unfamiliar problems that he/she cannot adequately structure or categorise. Tolerance for ambiguity therefore specifically relates to the information that individuals receive from or about such situations (Hartmann, 2005, p. 245). Norton (1975, pp. 608-609) defines intolerance for ambiguity as 'a tendency to perceive or interpret information marked by vague, incomplete, fragmented, multiple, probable, unstructured, uncertain, inconsistent, contrary, contradictory, or unclear meanings as actual or potential sources of discomfort or threat.' A tolerance for ambiguity variable suggests that persons with high tolerance for ambiguity seek out and enjoy ambiguity, and excel in the performance of ambiguous tasks (Norton, 1975, p. 618). How a person copes psychologically with ambiguous information affects the perception, interpretation and weighting of cognitions, because a person's degree of ambiguity tolerance interacts in any situation where there is too little, too much, or seemingly contradictory information.

Researchers that have investigated tolerance for ambiguity as a personality characteristic for accounting students have consistently reported these students to be significantly less tolerant for ambiguity than the general population (Elias, 1999). Male accounting students were found to be more tolerant of ambiguity than females (Elias, 1999, pp. 39-40), although still significantly less than the norm.

This article examines the personality characteristic tolerance for ambiguity among accounting students to determine whether students currently being attracted to the profession are still less tolerant of ambiguity than the norm as reported by Elias (1999), taking into account the drive from the accounting profession to attract individuals to the profession that are effective communicators, can think and act strategically, are able to solve unstructured problems, and are aware of business issues. This research is especially important given the severe shortage of accounting professionals being experienced in South Africa (SAICA 2009a). In addition, given that 29% of South African chartered accountants are employed as senior management or directors (SAICA 2009b), who are required to make decisions in very uncertain situations, this is a matter which warrants careful consideration. It might very well be that the wrong type of student is being attracted to the accounting profession, or at least not enough students evidencing a high tolerance for ambiguity to be effective in the modern business environment.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

McDougall (1926) made one of the earliest attempts to relate personality traits to an ambiguity variable. Frenkel-Brunswik (1948, 1949) was the first to present a comprehensive treatment of ambiguity as an emotional and perceptual personality variable. It was concluded that if a person is reluctant to think in terms of probabilities and prefers to escape into whatever seems concrete, he/she is intolerant of ambiguity. Martin and Westie (1959), Budner (1962), Rydell and Rosen (1966), and MacDonald (1970) attempted to construct paper-and-pencil measures of ambiguity tolerance. Their research resulted in the AT-20 paper-and-pencil measure for ambiguity tolerance. Norton (1975) refined the AT-20 measure to increase the confidence that can be placed on the results of the AT-20 questionnaire measuring ambiguity tolerance.

Research that investigated the personalities of accountants suggests that accountants are not homogeneous in terms of ambiguity tolerance (Elias, 1999; Johnson, Kaplan, & Reckers, 1998; Majid & Pragasam, 1997). Lamberton, Fedorowicz, and Roohani (2005) examined the tolerance for ambiguity to determine if there are significant differences between individuals primarily interested in acquiring traditional financial/assurance knowledge and those interested in both accounting and information technology (IT). Their research suggested that accountants with strong interests in IT are more comfortable with ill-defined, ambiguous problem-solving situations.

Individuals who are creative and attracted to ambiguity are also more likely to be risk- and sensation-seeking (Johanson, 2000), arguably a less-than-ideal characteristic for certain accounting and auditing positions. In contrast, the same creative and ambiguity-tolerant individual may be just the type of accountant needed to analyse and design controls in financial systems. Jobs that depend upon a conservative attitude toward risk may be best assigned to low ambiguity-tolerant individuals, while jobs that require very high levels of creativity may be best completed by individuals with high ambiguity tolerance.

In a study of government auditors, Gupta and Fogarty (1993) found that tolerance for ambiguity affects auditors' preferences for more or less supervision and more or less use of standard operating procedures. In a study of loan officers, Wright and Davidson (2000) found that a final loan decision is affected by an individual officer's tolerance for ambiguity rather than by the trustworthiness of financial statements. Majid and Pragasam (1997) found that a low-ambiguity-tolerant auditor is less likely to issue an unqualified opinion when the magnitude of contingent liability is high and Johnson et al. (1998) reported that low-ambiguity-managers tend to rate female auditors lower than male auditors, while high-ambiguity-tolerant managers tend to rate female auditors more favourably.

In a study of the effectiveness of instructional methods, Stone, Shelly, & Pincus (1997) found that ambiguity tolerance relates to student characteristics and programme choice rather than instructional method. Johansen and Grabowski (1993) state that students with a low tolerance for ambiguity are more likely to do well with reliable but repetitive tasks and excel at application of well-defined rules. If students perceive accounting to be repetitive, structured, and compliance-driven, it should appeal to students with less tolerance for ambiguity. A recent

study of accounting programmes in America sponsored by PricewaterhouseCoopers (2003) concluded that many institutions continue to focus on accounting rules and procedures even in courses such as auditing. The implication is that some accounting programmes continue to emphasise accounting rules to the exclusion of the training needed to foster development of problem-solving and other higher level skills, such as critical thinking. As a consequence, accounting programmes and modules that make little demands on students for critical thinking skills may appeal to individuals with a low tolerance for ambiguity.

Prior research concluded that South African students still perceive accounting to be about repetitive tasks that are performed in a highly structured fashion to ensure compliance (Wessels & Steenkamp, 2009). Therefore, the first hypothesis of the current study is:

**H1:** Accounting students are significantly different from other business students in their tolerance for ambiguity.

Taube (1997), Elias (1999), and Lamberton et al. (2005) all found that, in general, females were less tolerant of ambiguity than males, with accounting female students significantly less tolerant than their male counterparts. The proportion of female chartered accountants in South Africa has increased from 16.3% in 2002 to around 27.3% in 2009 (SAICA, 2009c). Because women are playing an increasingly more significant role in the workforce, gender differences should also be examined. The second hypothesis of this study is:

**H2:** There is significant difference between male and female accounting students' tolerance for ambiguity.

In South Africa, there has been a drive by the accounting profession to increase the number of non-White chartered accountants. The proportion of non-White chartered accountants has increased from 6.8% in 2002 to 15.2% in 2009 (SAICA, 2009c). Because of potential differences in the cultural backgrounds of the different ethnic groups, the third hypothesis is:

**H3:** There is significant difference in the tolerance for ambiguity between different ethnic groups in South Africa.

Harding and Ren (2007) measured the ambiguity tolerance levels of final-year accounting students and first-year students from Australia and China using the MacDonald AT-20 Ambiguity Tolerance Index. They concluded that entry-level accountants in China are less tolerant of ambiguity than their Australian counterparts, but with no statistically significant differences in the levels of ambiguity tolerance between final-year accounting students. This led them to suggest that differences in ambiguity tolerance may be attributable to events occurring while students are studying. Therefore, the fourth hypothesis of this study is:

**H4:** Tolerance for ambiguity changes over time because of events occurring while students are studying.

## **RESEARCH METHODOLOGY**

### **Research Instrument**

Tolerance for ambiguity was measured using the AT-20 scale, a widely used and validated instrument developed by MacDonald (1970). The AT-20 consists of 20 true/false questions designed to determine an individual's personal attitudes and beliefs toward ambiguous situations. The instrument is scored such that higher scores signify a high level of tolerance for ambiguity. A maximum score of 20 would result if the respondent answered 15 specific questions as false and five specific questions as true. This is a widely used instrument for ambiguity tolerance with reliability of 0.86 in a sample of 789 students and a test-retest reliability of 0.63 for a six-month interval (MacDonald, 1970). The mean score for the test sample was 10.51 and the standard deviation was 3.32. Elias (1999) administered it to 190 accounting students and found a mean of 8.69 and a standard deviation of 3.20. Lamberton et al. (2005) reported a mean score of 8.15 for students majoring in accounting. To derive variable scores from the raw scores, answers denoting high tolerance for ambiguity were scored one and scores denoting low tolerance for ambiguity were scored zero (MacDonald, 1970).

## Data Collection

To obtain the required data for this study, the survey was administered in February 2008, the first month of the academic year. It involved newly enrolled students in the Faculty of Economic and Management Sciences of a residential South African university, as well as students that had completed their first, second and third years of study in the faculty. The survey was web-based and students were encouraged to complete it on their own time. Two follow-up e-mails were sent as reminders to encourage them to complete the survey. The survey was sent to students enrolled in a number of courses - two first-year Information Systems courses (which ensured that the majority of students enrolled for either a B Comm (Other) or B Comm (Accounting) degree in the first year were reached); second- and third-year Information Systems and Financial Accounting courses (whereby the majority of students enrolled for the second and third years of B Comm (Accounting) were reached); and the honours classes for B Comm (Accounting). B Comm (Other) students study a variety of different disciplines, e.g. marketing, human resources management, logistics management, economics, actuarial sciences, etc.

The respondents were classified based on the year in which they first enrolled at the university. Students who enrolled in 2008 for the first time were classified as matriculated; those who enrolled in 2007 and 2006 as second- and third-year students, respectively; and those who enrolled in 2005 or earlier than 2005 as fourth- or final-year students. As students were at the beginning of their particular year of studies, they were classified as having completed the previous year. The number of invitations to participate and the response rate are detailed in Table 1. An overall response rate of 21.5% was achieved. The internal reliability of the tolerance for ambiguity score was validated and is acceptable with a Cronbach Alpha of 0.70. This compares favourably with the alpha of 0.65 obtained by Lamberton et al. (2005).

**Table 1: Response Rate per Year of Study**

Year of Study	Population	Responses			Response Rate
		Male	Female	Total	
Matriculated	1370	175	137	312	22.8%
First year	526	52	51	103	19.6%
Second year	560	62	51	113	20.2%
Third year	348	43	29	72	20.7%
Fourth year	140	18	14	32	22.9%
<b>Total</b>	<b>2944</b>	<b>350</b>	<b>282</b>	<b>632</b>	<b>21.5%</b>

## RESULTS AND ANALYSIS

As shown in Table 1, of the 632 participants, 55.4% (n = 350) were male and 44.6% (n = 282) were female. Students enrolled for B Comm (Accounting) programmes dominated with 72.8% (n = 460), while B Comm (Other) students comprised 27.2% (n = 172). The overall mean score calculated for the tolerance of ambiguity for all the respondents was 7.68 (standard deviation of 3.05), which is significantly lower than the 8.69 obtained by Elias (1999) and the 8.66 reported by Lamberton et al. (2005) for business students (see Table 2). MacDonald (1970) reported a mean score of 10.51 based on a representative sample of the general population.

**Table 2: Tolerance for Ambiguity by Programme and Gender**

Descriptive Statistics (n = 632)			
	Male	Female	Full Sample
B Comm(Accounting)	7.99	6.84	7.50
B Comm (Other)	8.19	8.12	8.16
Combined	8.04	7.21	<b>7.68</b>
Significance Summary			
Full Sample (n = 632)	Means		Significance
Accounting vs. Other	7.50 vs. 8.16		p = 0.0156
Male vs. female	8.04 vs. 7.21		p < 0.001
Accounting (n = 460)			
Male vs. female	7.99 vs. 6.84		p < 0.001
Other (n = 172)			
Male vs. female	8.19 vs. 8.12		p = 0.87

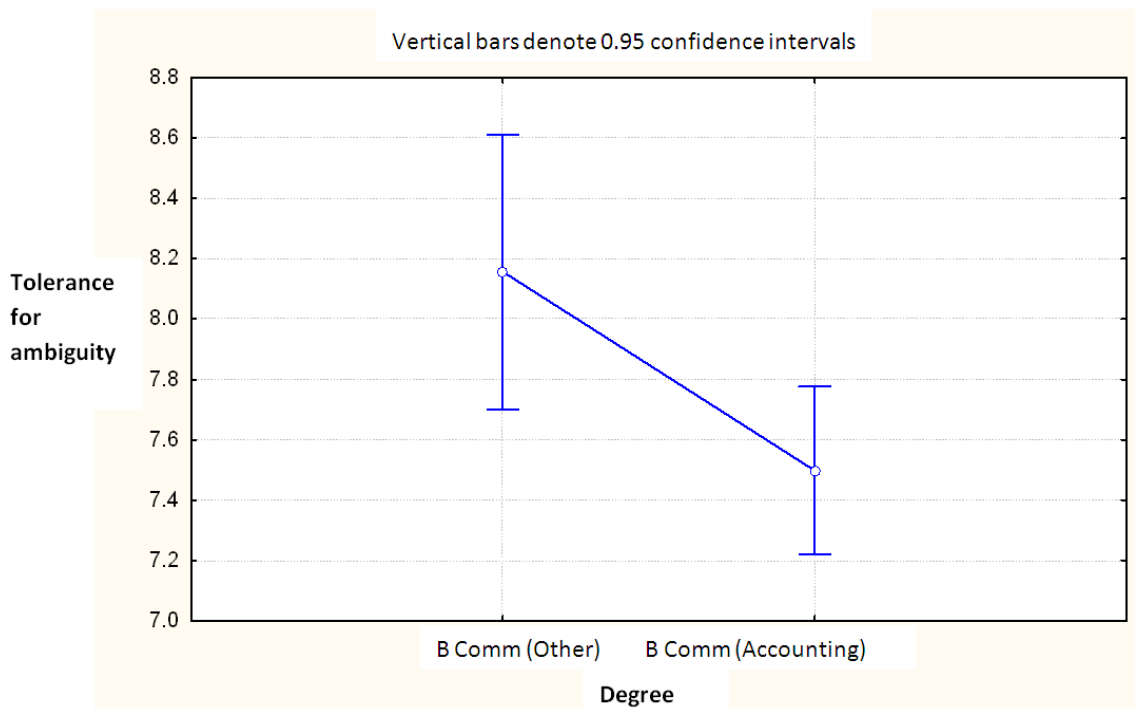


A statistically significant difference was found between the ambiguity tolerance scores for male and female respondents. Males scored, on average, 8.04 and females 7.21 ( $p < 0.01$ ). This indicates that the male were more tolerant of ambiguity than female respondents. This is in line with the findings of Elias (1999) who reported a mean score of 6.82 for males and 5.84 for females and Lamberton et al. (2005), where males averaged a mean score of 9.64 and females 7.78.

The results on ambiguity tolerance indicate that accounting students are less tolerant than other business students and significantly less tolerant of ambiguity than the national norms (Taube, 1997). In addition, males were significantly more tolerant of ambiguity than females ( $p < 0.001$ ).

**Choice of Degree Programmes**

This study included respondents from different degree programmes in the Faculty of Economic and Management Sciences. As these degree programmes require and attract students with different skills and competencies, it was hypothesised that there would be a difference in tolerance for ambiguity between students enrolled in different degree programmes. The results of this study confirm that students enrolled in accounting degree programmes are less tolerant of ambiguity (mean = 7.50) than those enrolled in other business programmes (mean = 8.16). Lamberton et al. (2005) reported a mean score of 8.15 for students enrolled in accounting degree programmes compared to the mean score of 9.89 for those enrolled in accounting information systems programmes. Female students enrolled in accounting degree programmes were significantly less tolerant of ambiguity than their male counterparts (7.99 vs. 6.84). Figure 1 displays the tolerance for ambiguity scores for the different degree programmes ( $p < 0.5$ ).



**Figure 1: Tolerance for Ambiguity for Respondents in Different Degree Programmes**

The results of this study confirm that accounting degree programmes still attract students who prefer unambiguous, structured situations compared to the students who are enrolled in other B Comm programmes and who demonstrate a higher tolerance for ambiguity. This is further confirmed in that students who had accounting as a subject at school were more intolerant of ambiguity than those who did not have accounting at all, with mean scores of 7.52 and 8.41, respectively ( $p < 0.01$ ).

### **Ethnicity**

The South African population constitutes a variety of different ethnic groups characterised by different cultural beliefs, upbringing, and language preferences. Because of these differences, it was hypothesised that there would be a difference in ambiguity tolerance scores between different ethnic groups. However, this study found no statistically significant differences in the mean scores for ambiguity tolerance between white (n = 463) and non-white (n = 142) respondents (27 respondents did not indicate ethnicity). Also, no statistically significant differences were found between respondents with different home languages. This might be due to the fact that 61% of the respondents indicated their home language as Afrikaans - the university where the study was undertaken is predominantly Afrikaans (Afrikaans home language: n = 385, English home language: n = 179, other home language: n = 35). There was some indication that respondents who had a dual home language of both Afrikaans and English were more tolerant of ambiguity, but as there were only 33 (5%) respondents that could be classified as such, no definite conclusions could be drawn.

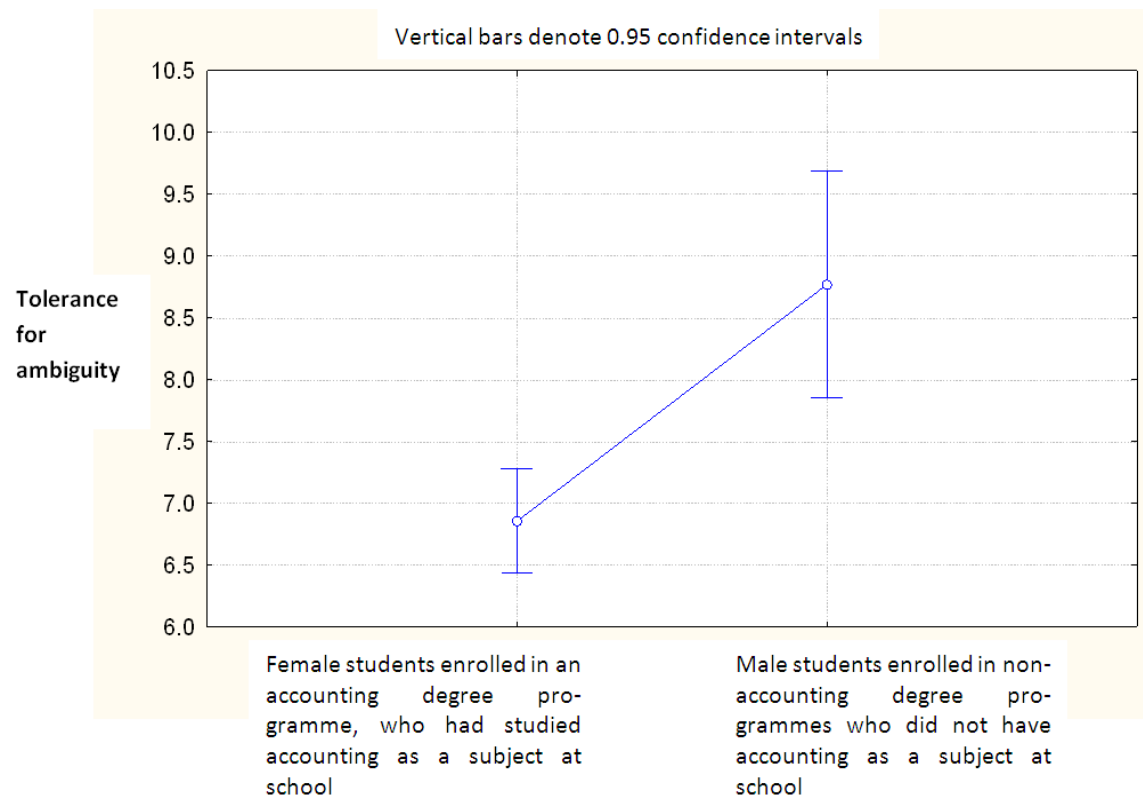
### **Year of Study**

Utilising the Spearman Rank Order Correlation, no correlation was found between the year of study and tolerance for ambiguity score. Therefore, there was no change in the tolerance for ambiguity scores as students progressed with their studies.

### **DISCUSSION AND CONCLUSION**

The aim of this article was to examine the tolerance for ambiguity among accounting students in South Africa currently being attracted to the profession. The study was conducted using a measurement tool for ambiguity tolerance developed by MacDonald (1970). In total, 632 students participated in the survey, leading to a response rate of 21.5%.

It was found that male students were more tolerant of ambiguity than females and that students who had prior exposure to accounting at school were even less tolerant of ambiguity. Overall, the respondents were intolerant of ambiguity, with a mean score of 7.68, which is lower than the midway mark of 10 and lower than was found in other studies. Students studying toward a B Comm in Accounting were less tolerant of ambiguity than those enrolled for other B Comm degrees. No differences in levels of ambiguity tolerance were found between different ethnic groups or students with different home languages. No change in tolerance for ambiguity took place as students progressed with their studies. From the results of this study, it can therefore be expected that female students who enrolled in an accounting degree programme and had studied accounting as a subject at school would be the least tolerant of ambiguity (n = 175, mean score = 6.84). Similarly, male students who enrolled in non-accounting degree programmes and who did not have accounting as a subject at school (n = 37, mean score = 8.77) would be considerably more tolerant when confronted with ambiguous situations ( $p < 0.001$ ), as depicted in Figure 2.



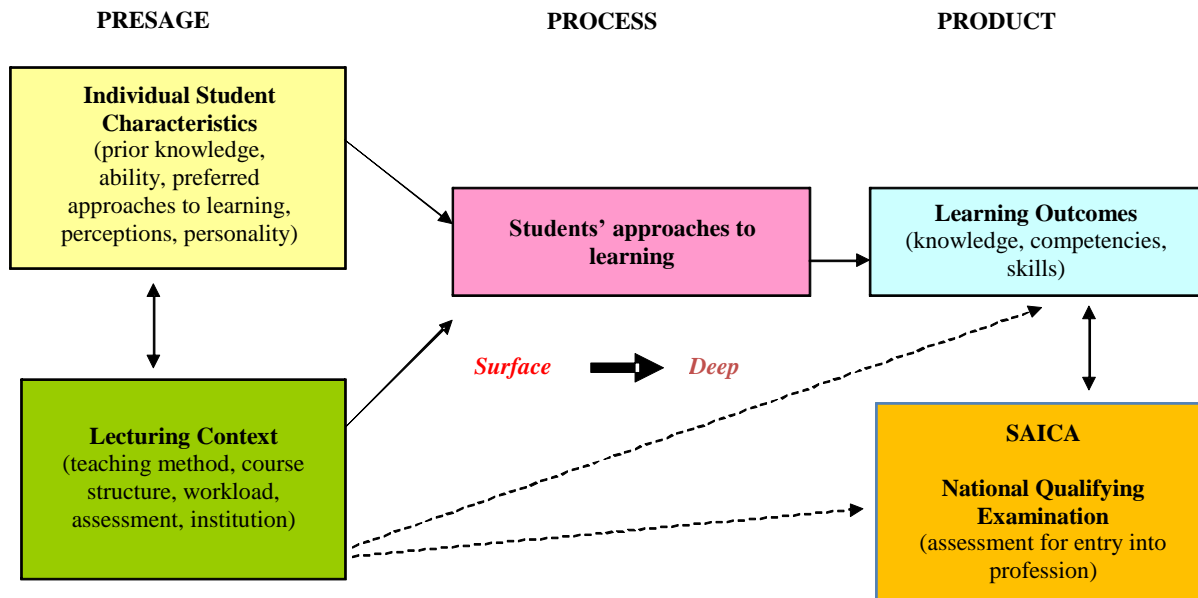
**Figure 2: Tolerance for Ambiguity for Respondents in Two Selected Stratifications**

In prior research, Wessels and Steenkamp (2009) concluded that South African students perceive accountants to be structured, precise, and solitary individuals. They theorised that because of these perceptions, the accounting profession will most likely attract students that prefer/demonstrate these attributes. This present study, which investigated a personality characteristic of students, confirms that the majority of accounting students are intolerant to ambiguous situations (especially compared to other business students). This reaffirms the theory that the accounting profession mainly attracts students with a low tolerance for ambiguity and who perceive accountants to be structured and precise. The current accounting curriculum at schools seems to reinforce these perceptions of the accounting profession.

The findings of this study have major implications for accounting education in South African tertiary institutions in that it currently attracts mainly students that are comfortable with unambiguous, structured, and precise situations. To pursue a career as a chartered accountant in South Africa, students are required to enrol in a three-year B Comm Accounting degree programme at an SAICA-accredited university. On completion of this degree, students are required to complete a one-year Certificate in the Theory of Accounting (CTA), also at a SAICA accredited university. The CTA gives students entry into the national qualifying examination that allows entry into the profession (SAICA, 2009d).

According to Biggs (1989), the learning process can be conceptualised as an interacting system of three sets of variables (see Figure 3): 1) the learning environment (e.g. teaching methods, workload, course structure, assessment), 2) student characteristics (e.g. prior knowledge, academic ability, personality, perceptions), and 3) students' approaches to learning (e.g. deep approach or surface approach) and learning outcomes (e.g. competencies, knowledge, skills). In South Africa, an external qualifying examination assesses whether students will be accepted into the accounting profession.





**Figure 3: Biggs' Presage-Process-Product Model**

Source: Adapted from Biggs (1989)

The accounting profession has, in reaction to the demands of the business environment, redesigned the learning outcomes of accounting curricula to emphasise that accountants should possess good interpersonal skills, be creative in solving problems, be able to make decisions, be able to plan for the future, and be good communicators (Wessels & Steenkamp, 2009, p. 120). Because the final assessment frames learning, creates learning activity and orients all aspects of learning behaviour (Gibbs, 2006, p. 23), it affects both the relative attention that students give to different aspects of their programme and the way in which knowledge is structured (IFAC, 1998, pp. 7-8). The accounting profession should therefore ensure that the national qualifying examination (the final assessment) is clearly aligned with the learning outcomes demanded by the profession.

Students enter the learning environment with prior perceptions, knowledge, cognitive abilities, and personality characteristics. It is imperative that students are informed and aware of the learning outcomes (competencies, skills, etc.) of the programme for which they enrol to ensure that these outcomes align with the individual characteristics of students. The lecturer's fundamental task is to get students to adopt learning activities that are most likely to result in their achieving the stated learning outcomes for a particular programme. Lecturers can impact students' approaches to learning by the lecturing context (e.g. teaching method, workload, assessment, course structure) they adopt, taking into account students' individual characteristics. However, if accounting programmes attract students with characteristics that are not in line with the desired learning outcomes of the programme, educators may experience resistance from students if programmes attempt to address the desired learning outcomes.

Internationally, accounting education within higher education has undergone significant reorientation and development in recent years, especially in particular countries and institutions. The content, delivery, and assessment of their programmes have been changed with the intention of fostering high quality learning outcomes as demanded by the profession (Flood & Wilson, 2008, p. 226). This has resulted in a wider recognition that degree programmes must move away from their traditional focus of imparting large volumes of technical knowledge to fostering among students a personally developed understanding of the principles and concepts that underpin accounting and business practices (Wilkin & Collier, 2009; Flood & Wilson, 2008, p. 225). In South Africa, most educational institutions still base the contents of their syllabi almost exclusively on the assessment regime of the external professional examinations. Educational institutions that align their syllabi with the content of the professional external assessment instead of on the desired outcomes of the programme could face the danger of

reducing education to “teaching/preparing for the test” (Bresciani, 2006, p. 3). This is in direct contrast to the recognised strengths of traditional universities to develop the ‘learn-to-learn’ ability of students. The ‘learn-to-learn’ ability is also advocated as a key competency necessary in order for accountants to adapt to the rapidly changing business environment (Gammie & Kirkham, 2008, p. 362).

Therefore, accounting educators need to address not only the demands of the accounting profession, but also those of the business environment and traditional university education, to ensure that students who graduate from their institution demonstrate the knowledge and skills required from the stakeholders. The challenge for all educators is to seek ways to marry the curriculum, the design and subsequent delivery of the syllabus and assessment (the learning context) in such a way as to maximise student learning in relation to the curriculum objectives (the learning outcome), taking into account the prior characteristics of students entering the programme.

From this study, it became clear that the accounting profession in South Africa attracts students with a low tolerance for ambiguity. Female students, in particular, are less comfortable with ambiguous situations and might find it more difficult or frustrating to function in a business environment where there are not clear-cut answers. This is worrying, as they may be disillusioned upon entering the workplace to find that there are not necessarily definite answers to problems in the real world or that they are required to make decisions with imperfect and incomplete information available to them.

The accounting profession in South Africa should more clearly articulate the desired outcomes and personality characteristics of modern-day accountants to ensure that the profession also appeals to students who are tolerant of ambiguous situations. Moreover, the national qualifying examination should be more clearly aligned with the desired learning outcomes of the profession. In recruiting new students to the profession, it should be made clear to all students that there are challenging problems in business and accounting which require innovative solutions and thought processes. This could also dispel the myths surrounding the potentially negative perceptions of accountants that currently exist.

Accounting educators should also ensure that students are exposed to ambiguous problems and situations not only at universities, but also in accounting education at school. This study revealed that current accounting education at universities does not improve the low tolerance of students for ambiguous situations as they progress with their studies. By changing the learning environment and exposing students to problems and subjects that deliberately contain uncertainty and require students to be creative in solving and communicating their unique solution to a typical business problem (that does not have just one correct answer), their level of tolerance may be increased. This is important in the preparation of these students for the business world, as they would need these skills when leaving university.

Further research could be conducted to determine whether there is a correlation between the students’ perceptions of the accounting profession and their tolerance for ambiguity. Another study could be conducted to determine whether there is a correlation between the preferences of students for certain subjects (for example, those that are structured and precise and subjects that require students to solve uncertain and ambiguous business problems) and their tolerance for ambiguity.

This study highlights the importance of understanding the characteristics of students currently being attracted to the accounting profession to determine whether the expectations of these students are in line with the desired learning outcomes as envisaged by the accounting profession.

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**NOTES**