

Creating Professional Accountants: A Bourdieusian Field Study of the Business of Learning Accounting

1. INTRODUCTION

Students of accounting, as the future audit partners, tax professionals, finance directors, and business leaders of the future all enter university as individuals from a range of different backgrounds, nationalities, genders, and language proficiencies. These different qualities will, in differing ways, affect their ability to develop as students of accounting and eventual accounting and business professionals. From the outset of their studies some seem better equipped to master the learning accounting game than others.

Diversity issues within the corpus of the critical and interpretive accounting literature have been a vigorous area of investigation for accounting researchers evidenced by work addressing gender (e.g., Ciancanelli *et al.*, 1990; Dambrin and Lambert, 2008, 2012; Haynes, 2006, 2008; Hooks and Cheramy, 1988; Ikin *et al.*, 2012; Lehman, 1992), race (e.g., Hammond, 1997; Hammond *et al.*, 2009; James and Otsuka, 2009), social class (e.g., Author, 2013; Jacobs, 2003; Lee, 2004), and disability (Duff and Ferguson, 2007, 2011, 2012).. These analyses are typically conducted at the level of trainee or professional accountants.

In the majority of western countries the possession of an accounting-related degree is a prerequisite for professional training and some study of accounting is deemed necessary for a career in business management or organisational administration. Prior critical studies of accounting then leave a lacuna: the perspectives of *students* of accounting and their evaluations of the accounting profession and accounting work. Students constitute the population of future accountants and users of accounting information and knowledge. Without mastering the subfield of learning accounting, a person cannot progress to being an accountant or an informed user of accounting information. That is, they are unable to become legitimate players in the fields of accounting and business (AECC, 1992). Or more critically, given the imperial position capitalism and economic considerations play in shaping the field of accounting education (Chabrak and Craig, 2011; Graham, in press; Ocampo-Gómez and Ortega-Guerrero, in press), reflecting the hegemonic role played by employers of accounting graduates in the formulation of the curriculum (Duff and Marriott, 2012; Thomson and Bebbington, 2004), success in learning accounting requires the adoption of the correct discourse.

In the United States (US), the American Institute of Certified Public Accountants' (AICPA) Pathways Commission (2012, p.86) has identified the pivotal role the first course in accounting plays:

For nonbusiness students pursuing a minor or certificate program of study in business, this is likely the only course they will take in accounting and, in many cases, the only true exposure they will have to the accounting profession. However, these courses are often taught in mass sections using a similar pedagogy to that used for business majors but on a less rigorous basis. Because this one course is likely the only exposure these potential entrants will have to accounting, it must go beyond the technical nature of accounting to more completely discuss the role accounting and accountants play in society and the various career opportunities of the profession.

Without a clearly articulated role that is integrated into the larger business and accounting curricula, and without engaging teaching approaches and materials, the first course remains an area to be addressed in effective curricular models.... In the worst case, it may perpetuate a negative image of our profession and the possibilities within our profession; in the best case, it constitutes a missed opportunity to attract students interested in meaningful and challenging work to accounting.

Drawing on prior phenomenographic work to understand of the socially constructed worlds of learning experienced by introductory students of accounting (Lucas, 2000; 2002), this paper develops and applies a model of students' expectations of learning accounting. Lucas' work was motivated by a need to understand learning in the disciplinary context, rather than relying on generic ideas about learning in higher education (Eley, 1992; Entwistle, 1984; Meyer *et al.*, 1990; Meyer and Watson, 1991; Ramsden, 1984; Saravanamuthu, 2008). In particular, Meyer and Eley (1999) have argued that students may well adopt differentiated patterns of learning behaviour that arise from the disciplinary teaching context and the epistemology of the discipline. Our research includes students' perceptions of the subject of accounting (Mladenovic, 2000) by incorporating an understanding of their epistemological beliefs, intentions, and motivations. The history of accounting and accountants is characterised by stereotypical views of dull bean counters and shady business operators, short on ethics but high on remuneration and opportunism juxtaposed by the industry's efforts to rebrand its practitioners as dynamic young business professionals (see Carnegie and Napier, 2010 for a recent review of the significant accumulation of literature). The historical legacy of understandings of accounting and becoming an accountant then provide a fecund area for exploration.

We interpret our findings using Bourdieu's key concepts of field, doxa, habitus, and capital to identify the role of discourse in constructing the boundaries of the accounting field as understood by introductory students of accounting. Bourdieusian sociology emphasises the important of differentiation in creating the boundaries of field and the role of distinction in explaining how different agents (players) within a field experience it. Accounting has been conceived as a field in a Bourdieusian sense (e.g., Alawattage, 2011; Gracia and Oats, 2013; Hammond *et al.*, 2009; Ikin, Johns and Hayes, 2012; Kurunmaki, 1999; Ramirez, 2001; Shenkin and Coulson, 2007; Xu and Xu, 2008; see also Malsch *et al.*, 2011 for a recent review of Bourdieu's influence on accounting literature). The accounting field is said to be differentiated from other fields by processes of legitimisation (Bourdieu, 1998). The concept of field has also been applied considering the relationship between accounting and minorities (Kirkham and Loft, 1993; Walker, 2008). We argue learning accounting represents a subfield as it represents a social space that mediates entry into the socialisation process of becoming an accountant or business professional, or alternatively rejecting accounting and dismissing it as a 'pariah subject' (Fisher and Murphy, 1995 p.45).

Bourdieu's work has been extensively applied in the sociology of education literature (e.g., see Reay, 2004 for a critique) as a consequence of Bourdieu's belief in the commanding role education plays in the socialization processes that construct a social actor's habitus, their possession of capitals, and their consequent position in a field. Despite the potential Bourdieusian sociology offers for accounting scholarship, no attempt has been made to apply Bourdieu's theory to critical study of accounting students. Accounting students form a significant element of the accounting profession (Laughlin, 2011) as, in the majority of western countries, an accounting degree is a prerequisite to a career in the industry. Similarly, some accounting study is required by business people to communicate, to manage and control their operations. Study of introductory accounting then is essential to the budding accountant or business professional; without mastering the introductory course, one cannot be an accountant. Significantly, we demonstrate that the subfield of learning accounting is a complex process, rather than the simplistic one sometimes characterised in the accounting literature of rote learning, slavish adherence to professional bodies' requirements (Sikka, 1987; Sikka *et al.*, 2007), and lacking criticality.

The paper develops Lucas's (2000) exploratory phenomenographic investigation and subsequent creation of an empirical model and instantiated by the creation of an inventory termed the Expectations of Learning Accounting (ELAcc v1.3) inventory applied in Lucas and Meyer (2005). Our investigation extends this work by the development of a more extensive inventory (ELAcc 1.4) where detailed measurement information is reported, allowing subsequent use and replication elsewhere. The empirical approach used in this study, namely developing a quantitative model on the basis of phenomenographic work, is entirely consistent with Bourdieu's sociological approach. In particular, empiricism in how we describe our constructs of learning, is mediated by those qualitative factors identified from the phenomenographic prior research (Lucas, 2001) and significant development work, described later in this paper, that creates the constructs that are described and tested within our work.

We then provide evidence of students' socially constructed understandings of the processes of learning accounting using a large-scale and diverse sample of introductory students of accounting at two Australian universities. Australia provides a valuable contextual setting for this study as it has the highest proportion of international students of any western country. Finally, we use our results to provide evidence of differentiation between student populations, which in turn provides evidence of how different individuals from different cultures, genders, and courses of study represent the subfield of learning accounting.

The paper is structured as follows. The theoretical framework is outlined in section two. Section three describes the development of a discipline-specific inventory (ELAcc) used to capture the essence of the accounting field. The fourth section describes the methodology employed, including: a description of the development, piloting, and final form of the ELAcc inventory; the sample; administration procedure; and data analysis. Section five describes the results. Analysis and discussion of these results is provided in section six. Our conclusions, suggestions for future research, and implications for policy and practice are outlined in the final section of the paper.

2. THEORETICAL FRAMEWORK

Bourdieu and learning accounting

To understand the socially constructed notions held by accounting students of what accounting is, Bourdieusian sociology is adopted. Education holds a particular relevance for Bourdieu as he views the educational system as sites where the dominant social order and its values are transmitted to students to ensure the social and ideological reproduction of society (Bourdieu and Passeron, 1990). Thus, although education can be viewed as an effective mechanism for promoting social change and inclusion, it can similarly function as a means reproducing social divisions, the status quo, and relative disadvantage between social groupings (Webb *et al.*, 2002: 106). In the context of accounting education, universities become initial sites in the accounting professionalization project where key social actors such as accounting professional bodies, the State, corporations and the accounting industry influence the constitution of the accounting field (cf., Ramirez, 2001). Given the relevance of Bourdieu to critical accounting education it is perhaps surprising that only two published studies (McPhail *et al.*, 2010; Chabrak and Craig, 2013) exist that make extensive use of Bourdieusian concepts.

For Bourdieu, society is made up of *fields*, social spaces constructed from behaviours and traditional practices. Subfields also exist for example, an organisation within an industrial

field, or, in the present case, students learning accounting in the professional accounting field (Everett, 2002). When a (sub)field is shaped by the *autonomous pole*, the intrinsic values of the field, then actions motivated by the habitus will reproduce the qualities and volume of capital in the field (Everett, 2002). Where field conditions are affected by *the heteronomous pole*, represented by external or market forces, the field's capital structure changes, that in turn shape a changing doxa in the form of new beliefs and values. Fields represent 'a kind of market or game (jeu)' with 'stakes (enjeux)', 'investment (illusio)', and 'trump cards' (Everett, 2002: 60).

Bourdieuian fields are described by agents and discourse; that is, by the individuals and the discursive practices that frame the learning accounting field. Understanding learning accounting discourse is important not just in understanding the field boundaries but also the practices the agents employ, i.e., how individual students go about the business of learning, or coping with, accounting. The domain of introductory accounting has clear partisan interests, in the form of a curriculum and multiple stakeholders; rules, in the sense of an assessment regime; and barriers to entry, in terms of entry qualifications.

More specifically, field can also be thought of as a means of describing differentiated positions within a social sphere. Key to understanding the notion of field is how individual participants (agents or players) relate to the field itself. A defining feature of a field reflects its internalised rules. The rules of the field constitute a game or an *illusio*, or how individual agents relate to the field (Bourdieu, 1998). Agents who understand the rules of the game are in a better position to play the game successfully, while to those not well socialised into the game, sit on its peripheries aware that how the field operates remains an illusion (Bourdieu and Wacquant, 1992). Thus in the context of the learning accounting game, well-socialised agents with an understanding of what accounting is, and its potential for humankind, are more likely to master its rules and become successful within the field. Those less well-socialised in the field are more likely to struggle with the game and become increasingly disenchanted and detached from the subject. By the very act of participating, or enrolling, in the game of introductory accounting is to admit that the game is worth playing and the associated rewards are sufficient to justify ones participation (Bourdieu, 1998).

The notion that the subfield of learning accounting is a game in the context of learning chimes with significant educational research that identifies how students go about the task of learning. This is described in the influential students' approaches to learning literature, which forms the backbone of the majority of introductory courses in learning to teach in universities, commonplace in developed economies such as Australia and the UK. In particular students' approaches to learning theory emphasises the role of achievement and motivation in learning. Motivation is entwined with the twin dimensions of learning: learning for learning sake, for personal fulfilment and satisfaction, a deep approach; and learning as an externally-imposed task, where assessment is a hurdle to be overcome, characterised by rote-learning and learning without understanding, a surface approach.

Consequently, learning becomes a complex game, characterised for some by a sense of personal achievement, fulfilment, and where the subject being studied is full of personal interest and relevance. At the other end of the spectrum, learning is associated with dread, confusion, and a desire to complete the course as soon as possible. Fundamental to the concept of field and *illusio* is that the game is a collective affair, where all that benefit must participate in the game. However, despite what indifference an individual might display in the process of learning, it becomes impossible to be truly disinterested in learning. That is,

all players are captivated by the game to some degree.

Fields are characterised by exchange of capital whereby actors strive to possess various forms of capital. In particular, agents are ‘bearers of capitals’ possession of which reflects their position in a field. Consequently, fields have actors with differential amounts and qualities of capital creating a tendency to align themselves towards conserving the distribution of capital, or campaign against this distribution (Bourdieu and Wacquant, 1992: 108).

Bourdieu distinguishes between three primary forms of capitals: economic; cultural; and social (Bourdieu, 1986). Alongside these lie symbolic capital, that arises from the three primary forms of capital and is closely linked to habitus, a key concept in Bourdieusian analysis (Vaara and Fay, 2011). Economic capital is represented by tangible financial and property assets and material wealth (Bourdieu, 1998). In the context of learning accounting, students and their families have made investments in their school education and continue to do so at university in the form of tuition fees, living expenses, and learning materials.

Cultural (or informational) capital is described by intangible forms such as taste, appearance, lifestyle, and knowledge. Specifically cultural capital exists in four guises. First, an *embodied* cultural capital refers to mental and physical dispositions reflecting socialization processes, instantiated by, for example, dress sense, deportment, and physical appearance. Second, *Objectified* cultural capital represents an antecedent in the creation of objectified cultural capital that includes possession of cultural goods such as books, instruments, paintings, and writing. Third, *institutionalised* cultural capital denotes the certification of knowledge in the form of degrees, diplomas, and professional qualifications. In the context of learning accounting, this is expressed by the successful completion of accounting examinations. A fourth form of cultural capital is *linguistic* capital ‘acquired primarily through the family (the “mother tongue”) and is manifest in and measured through linguistic style’ (Everett, 2002: 63) and expressed through an ability to express oneself in appropriate language relevant to the audiences one wishes to influence.

In the context of learning accounting, linguistic capital has three features. First, the ability of the student to adequately express themselves in the language of the tuition they receive, in our study, English. Second, their capacity to speak the language of accounting, in itself frequently described as the ‘language of business’ (Swanson and Gardner, 1986; Bloomfield, 2008). An interesting interplay comes from the difficulties of translating technical accounting terms into non-English languages as ‘full equivalence in translation between languages is rare’ (Evans, 2004). Thirdly, recognition that adoption of the correct discourse can function as a source of social advantage whereby discourse becomes a cultural artefact that it traded as a form of capital in a symbolic market (Neu *et al.* 2003).

Social capital refers to the possession of social networks or social contacts. These can be expressed through cultural associations and access to networks. Processes of homology, describing the social reproduction of organisations, by recruiting individuals in the image of the recruiter have long been recognised and identify the power of social capital in access to power (Jacobs, 2003). Thus in accounting, students who exemplify the correct social networks by attending elite schools and enjoy socially exclusive activities such as drama, rugby, or equestrian interests.

Finally, symbolic capital is a product of the other forms of capital reflecting prestige and reputation, qualities in themselves that ‘mean nothing in themselves, but depend on people

believing that someone possess these qualities' (Webb *et al.*, 2002: xvi). That is they are the product of misrecognition work, or a belief that the form of symbolic capital is considered legitimate by an audience. For example, possession of a Chartered Accountant qualification, which conveys authority to the holder, over and beyond any skills or knowledge acquired during the necessary training.

Each of these capital forms can be converted, or exchanged, into other forms of capital. Thus in the context of learning accounting, students invest economic capital in the form of fees they pay to an institution alongside their costs of living and the opportunity costs of employment foregone. This economic capital is exchanged for institutionalised cultural capital in the form of academic success, social capital through contacts and access to social networks including access to lucrative employment prospects as an accountant or businessperson, and symbolic capital reflecting the prestige of holding an accounting or business degree and a degree from a well-respected university over less well-qualified individuals. The embodied and linguistic capital they entered university with is embellished and developed through contact with other individuals from other social backgrounds.

In Bourdieusian terms all fields and related subfields, such as accounting and accounting education, have *doxa* that represent unconscious, taken-for-granted assumptions that are shared between participants. The doxic society 'when it realizes itself in certain social positions, among the dominated in particular, it represents the most radical form of acceptance of the world, the most absolute form of conservatism' (Bourdieu and Wacquant, 1992: 74). Such conditions give rise to symbolic violence, 'the violence that is exercised upon a social agent with his or her complicity' (Bourdieu and Wacquant, 1992: 167) an act of misrecognition due to 'the fact of recognising a violence which is not wielded precisely inasmuch as one does not perceive it as such' (Bourdieu and Wacquant, 1992: 168). Or in others words, by virtue of the taken-for-granted assumptions of doxa, the subordinated see their inferior position to dominant agents as natural: a position that is reinforced by dominant agents coming to see their power as natural.

A key concept in the Bourdieu's framework is *habitus*, an internalised cultural habitat that provides a means of instantiating field (Sommerlad, 2007) and is determined in part by the field's doxa. Habitus is embodied in an individual via for example, speech, dress, and thought, as well as exemplifying how the body is in the social world (Reay, 2004). A habitus is a dynamic entity composed of a social actor's 'deeply ingrained identity and his or her less fixed, occupational identity' (Everett, 2002: 65). Or as Macintosh (2009) succinctly puts it, habitus describes the acceptable social conventions for the field: a kind of behavioural code. As Malsch *et al.* (2011, p.220) indicate:

Habitus should not be viewed as the product of an impersonal discursive force, and its inquiry requires the researcher to engage with micro-levels of analysis.

Education is of great significance for Bourdieu as it is the main conduit for passing the values and relations that are passed from one generation to the next (Webb *et al.*, 2002: 105). In particular academics, as social actors, possess pedagogical authority that allows an inculcation of habitus based on confirming, substituting, or re-educating the student based on the fit of their pre-entry habitus to the field of study (Vaara and Fay, 2011). In particular habitus and field have been likened to 'two sides of the same coin' and the congruence between them determines how easily the student will adjust to their environment (Watson *et al.*, 2009: 670).

As Bourdieu and Wacquant (2002: 127, 128) contend:

The field structures the habitus, which is a product of the embodiment of the immanent necessity of a field... Habitus contributes to constituting the field as a meaningful world, a world endowed with sense and value in which it is worth investing one's energy... Habitus being the social embodiment, it is "at home" it perceives it immediately as endowed with meaning and interest.

Significantly, field can only be interpreted in the context of doxa, habitus, and capital (Macintosh, 2009) in the sense that a field's social space reflects competing qualities and quantities of capital, unspoken assumptions, and the dispositions, attitudes, and expectations of its players.

Summary

To summarise, field as a theory of social structure can be viewed as a cycle that links doxa, habitus, symbolic violence and capital (Everett, 2002: 69) – see figure 1. Doxa, defined in terms of the language of accounting (or the language of business), its values and taken-for-granted assumptions shapes the habitus. This is significant in the context of learning accounting as the first course represents a significant socialisation process in informing 'what accounting is about' and what it is to be an accountant (e.g., Pathways Commission, 2012); that is, social agents of accounting professionalization train entrants in the correct discourse. Studying the first course in accounting then becomes a defining moment for all those who study it.

Habitus then is constitutive of the student's social background, their culture, and their prior education along with their newly acquired identity as a student of accounting. When 'actions motivated by the habitus are rooted in doxa' and they lead to an unequal allocation of capital between participants, then symbolic violence occurs (Everett, 2002).

Figure 1 here

3. MEASURING STUDENTS' EXPECTATIONS OF LEARNING ACCOUNTING: THE DEVELOPMENT OF THE ELAcc SCALE

Indicative of the importance of the accounting field, the subject is studied by large numbers of students in many different countries, either as a specialist degree or as a specialisation within degrees such as business studies, engineering, information systems, and nursing. For the majority of these learners, accounting is compulsory course. As such, studying introductory accounting becomes highly significant, providing both a gateway to employment in accounting and business and facilitating an understanding of accounting's potential as a social, economic, organisational, and political tool (e.g., Hopwood, 1989). The process of learning introductory accounting represents a significant milestone for many students, either positively, as a means to career and self-actualisation, or more negatively, as an externally-imposed hurdle to be overcome.

Debate on what should be included within an introductory accounting course has been significant over the past 40 years with influential policy documents created by professional accounting associations in Australia (Mathews Report, 1990; Hancock *et al.*, 2009), the UK (Solomons and Berridge, 1974), the United States (US) (AECC, 1992; Albrecht and Sack, 2001; Pathways Commission, 2012). Educators have been similarly disposed to study

introductory accounting with contemporary contributions focusing on ethics, skills development, and technology (see Wygal, in press for a recent review). However, all these normative propositions and empirical evaluations leave a blind spot: the perspectives of students themselves as the accounting profession of the future and their understandings, connotations, and judgements of what accounting is.

Prior phenomenographic work has considered students' expectations of learning accounting (Lucas, 2000). This work illustrates a dichotomy in student learning which she labels as worlds of 'engagement' and 'detachment'. Engagement refers to experiences of learning that are fulfilling and meaningful, whereas detachment reflects no meaningful engagement with the subject being studied and a desire simply to pass and move on to more fruitful avenues of study. This contrast is similar to that made in the students' approaches to learning literature that characterises student learning as being either: 'deep', denoting reflection and an intrinsic interest in what is being studied; or 'surface', where study is characterised by anxiety and rote-learning (see Duff and McKinsty, 2007 for a review). This work is distinct from other studies of novice students of accountants which typically use generic inventories to measure students' approaches to learning or more critical studies which examine the relationship between the curriculum, pedagogy and the accounting profession (e.g., Albrecht and Sack, 2002; Dewing and Russell, 1998; Sikka, 1987; Zeff, 1989; Ravenscroft and Williams, 2004, 2005; Sikka *et al.*, 2007). In particular, university degrees in accounting still emphasise the rote learning of techniques, rules, and regulations at the expense of considering the consequence to society of extant accounting practice and organisation (e.g., Sikka and Willmott, 2002; Burritt *et al.*, 2010; Duff and Marriott, 2012).

Phenomenographic research allows students to describe their own experiences of learning. However, phenomenographic work alone cannot report statistical variation in learning experiences, ascertain generalisability, or be readily applied in systems of mass higher education common in the western world today. To remedy this position, the ELAcc scale was created. The ELAcc scale is based on an empirical model of learning (Meyer 1999, 2003) that draws on both phenomenographic and generic scale research and offers scope for the development of a scale that is particularly relevant within a disciplinary context. Within this model learning is seen to be a process with a purpose, with a motivation (why learn), and shaped by an intention (what is to be accomplished) (Lucas and Meyer, 2005). It acknowledges the role of perceptions of context and conceptions of the subject (together comprising expectations of learning the subject) in relation to both motivation and intention. It draws on the constructs identified in phenomenographic research to enable students to indicate the strength of their agreement or disagreement with statements that describe beliefs, motivations and learning processes that might apply to them. Consequently, this inventory research supports the identification of statistical, as well as qualitative, variation in students' reported expectations.

ELAcc aims to identify discipline-specific observables, i.e. variables that describe different elements of the process of learning in accounting. These observables are operationalised as questionnaire items relating to specific constructs that describe how accounting students go about learning accounting. In turn the constructs relate to one of two factors of deep (transformative) or surface (accumulative) processes of learning accounting.

ELAcc exists in various versions; the first three are described in Lucas and Meyer (2005). ELAcc 1.1 was trialled with 386 first year introductory accounting students (332 Business Studies and Marketing; 54 Accounting) in the United Kingdom (UK) with 66 items grouped

under five broad headings of: (i) conceptions of accounting as a subject of study; (ii) intention and motivation; (iii) relevance of accounting; (iv) feelings about the learning of accounting; and (v) approaches to learning within accounting. ELAcc 1.2 comprised 61 items and was administered to 561 first year introductory accounting students in one UK university. Of these, 79 (Cohort A) were accounting students (either on the BA Accounting and Finance or the BA Joint Accounting degree) and 482 (Cohort B) were business-related students. As a consequence of this trialling, ELAcc 1.3 was developed. ELAcc 1.3 developed six ELAcc subscales labelled: (i) Enjoyment; (ii) Lack of Personal Interest; (iii) Worry; (iv) Relevance to Business; (v) Exam Focus; and (vi) Numbers. ELAcc 1.3 was the version used in Lucas and Meyer (2005).

For the purposes of this paper, a final version of ELAcc (1.4) was developed with three further three scales. Specifically, the Relevance to Business scale was excluded and two scales were substituted that are more specific about the type of relevance. These draw on the trialling of versions 1.2 and 1.3: (i) Reality/Meaning Behind Accounting; and (ii) Social and Economic Importance of Accounting. In addition, two more scales were created: (i) Questioning (transformative epistemological belief); and (ii) Achieving (motivation). Questioning was derived from versions 1.2 and 1.3. However, 'Achieving' drew on the Achieving measure already identified within the education literature Biggs (1987, p.11) describes the achieving approach as follows:

Achieving Motive (AM) is based on competition and ego enhancement: (to) obtain highest grades, whether or not (the) material is interesting. Achieving Strategy (AS) is based on organizing one's time and working space: behave as a model student.

Drawing on Lucas' (2000) work, we reframe her two world of learning, to create two new worlds: a world of Enlightenment, where the subfield of learning accounting provides entry to a universe of fulfilment, meaning and success; and a world of Darkness, where the subfield of learning accounting is an unlit by-road that takes the individual nowhere very useful or where they would wish to be. The nine scales of ELAcc 1.4 and their relationship to the two worlds of Enlightenment and Darkness are described in Table 1.

Table 1 here

Diversity, accounting, and learning

Gender differences in students' approaches to learning have been the subject of many investigations with mixed and, so far, inconclusive findings (see Baeten *et al.*, 2010). The nature of these differences understandably varies widely given the complex nature of approaches to learning. Some relate to issues of confidence and risk-taking. For example, Davies *et al.* (2005) review a range of research that finds females to be more risk-averse than males and more likely to report 'fear of failure'. Their findings showed consistent gender differences. In questions assessing declarative knowledge, confidence is said to inflate male students' scores. However, where questions sought understanding and an indefinite option was offered, females performed better. Meyer *et al.* (1994) found that females were more likely to adapt their approach to learning to the demand of different contexts. They found that gender differences arose within the deep/strategic, rather than surface, approaches to learning. Females evidenced more versatility in approach, were clearly organised and not achievement motivated. Of particular interest, given our justification above for research

within disciplinary settings, their study indicated stable gender variation differences in study behaviour that were related to a discipline-specific context. This assumption of gender variation was supported by the findings of Duff (2004) and Lucas and Meyer (2005).

Secondly, it appears that students for whom the study of accounting is compulsory, rather than freely chosen, comprise a distinct student group in terms of approaches to learning. This was identified in early phenomenographic (interview-based) research (Lucas, 2000) and confirmed through inventory-based research (Lucas and Meyer, 2005). Specifically, Lucas and Meyer (2005) identified a 'negative accounting' factor for non-major students. This factor was described as denoting a negative attitude towards the learning of accounting: indicating perceptions of accounting as lacking relevance, being about techniques and numbers, and indicating a lack of interest and enjoyment, in the presence of worry. Not surprisingly this factor was positively correlated (0.32) with a surface approach to learning factor.

Thirdly, the work of Meyer and Shanahan (2001) within economics indicates that students for whom English is a second language (ESL) may be at greater risk of failing. This has not arisen as an issue in prior phenomenographic or inventory-based work within accounting, mainly because the populations studied did not contain a large element of ESL students. As with gender, there may be a variety of reasons related to language and culture as to why ESL may be significant in producing variation. Cross-cultural differences are under-explored within the approaches to learning literature, particularly in accounting (Duff and McKinstry, 2007, Lucas, 2001, Saravanamuthu, 2008).

In particular, Chinese learners suffer a stereotypical conception that they are 'surface learners' characterised by rote learning (Watkins *et al.*, 1986), which in theory at least, should imply they perform poorly in examinations (Watkins and Biggs, 1996) but is contradicted in practice. Furthermore, the cultural traditions of education vary radically between west and east, with western education characterised by smaller class sizes, a warmer relationship between teacher and students, and an appreciation of learning for its own sake, in contrast to a more authoritarian, lower cost-base education in Confucian countries (Saravanamuthu, 2008).

Relatively little assessment of differences between western and Confucian heritage students exists. In an attempt to remedy this lacuna, Donald and Jackling (2007) find no significant differences in approaches to learning between groups of Chinese and Australian students of accounting. In a phenomenographic study of Sri Lankan students studying at an Australian university, Abhayawansa and Fonseca (2010 p.527) report that these students:

embrace the pedagogical tradition of the West, and engage in deep learning when they are exposed to research or practice-based assessments. Remnants from years of secondary education and aspects of a collectivist culture play a vital part in the ways in which these students perceive and approach learning. In addition, preconceptions of accounting as a vocation and a discipline are strongly embedded in practice, drive learning conceptions and learning approaches

Australia provides an appropriate context for the exploration of this issue. Australian higher education has the highest proportion of international students in the world (Organisation for Economic Co-operation and Development, 2010)¹ and their education, as in many other countries, is an important policy issue (Evans *et al.*, 2010). In particular, students' conceptions represent misrecognition work, in Bourdieusian terms, as social agents students'

conceptions become second nature to them, without recognising that their social world has been created for them.

For students from non-traditional accounting backgrounds, for those for whom accounting is not a subject of choice or enter from non-Western environments are then subjected to a system of values and a culture of learning that educators promote as natural and taken for granted. In Bourdieusian terms, this phenomenon represents symbolic violence where a disadvantaged group receives unfavourable treatment as a consequence of social norms and values. Any differences in expectations about learning accounting may signal a need for teaching interventions for this demographically significant group. This study provides an opportunity to investigate this aspect further.

4. METHOD

Sample and procedure

Students who participated in our investigation were first-year undergraduate students studying for Economics and Business degrees at two large Australian universities. The instrument was administered to the students at both institutions at the beginning of their first accounting lecture and was completed in the lecture. Participation was voluntary and administration required 20-25 minutes. Administration was completed by the same person in both institutions: one of the principal investigators. Students were provided with a participant information sheet explaining the purpose of the study and inviting them to participate. Details of the nature of the student cohort within each institution are provided in Table 2. Overall responses were received from 1,661 students (Institution 1: $N = 859$; Institution 2: $N = 802$)^{ii, iii}.

Table 2 here

Differences between the three groups by gender, Language, and Major/Non-Major are assessed using multivariate analysis of variance (MANOVA) to identify differences between populations in students' expectations of learning.

5. RESULTS

An objective of this empirical study is to establish whether the subfield of learning accounting can be adequately represented by the revision of the ELAcc. This is established using a statistical method termed confirmatory factor analysis (CFA) that allows various models to be tested using the data. Those items that were used in the analysis are reported in Table 3, column one. The factor pattern coefficient (FPC) is shown in Table 3, column two, with its squared multiple correlation displayed in column three. Internal consistency reliability (alpha) coefficients are reported for each subscale.

CFA was undertaken to test the construct validity of the scores produced by the 50-item ELAcc. Each of the subscales is formed by retaining survey items that yield a FPC greater

than .4. Items that yield a FPC less than .4 on their hypothesised measure are excluded on the grounds that they have low validity to represent the expected measure^{iv}. The item attrition exercise removed the Objectivity subscale derived from the earlier piloting, and one item from each of Exam Focus and Achieving measures. The final inventory thus consists of 43 items with nine subscales.

Table 4 presents data for two competing models, along with descriptive statistics and the inter-correlation matrix. Model A is a simple one-factor model, i.e., assumes the Enlightenment/Darkness constructs and their nine individual do not exist, and is tested purely for comparison purposes. Model B consists of two factors of Enlightenment and Darkness, and nine lower-order factors (measures). The five subscales of Achieving, Enjoyment, Questioning, Reality/Meaning Behind Accounting, and Social/Economic Importance of Accounting measure Enlightenment. Darkness is defined by the four subscales of Exam Focus, Lack of Interest, Numbers, and Worry. Model B then assesses the ability of the nine hypothesised ELAcc measures to be described by just two scales (Enlightenment and Darkness).

Predictably, the data demonstrates an inadequate fit to the one-factor model (Model A) (RMSEA = .084, 90% CI = .082 - .085, CFI = .440). Model B, the two higher-order factor, nine lower-order factor model, displays satisfactory goodness-of-fit statistics (RMSEA = .038, 90% CI = .036 - .039, CFI = .883) to Model B.

 Table 4 here

Differences in means between the three sub-groups are assessed using multivariate analysis of variance (MANOVA). The subscales are treated as dependent variables and Language, gender, and Major/Non-Major as fixed factors. Statistical significance testing is undertaken ($\alpha = .05$). If the multivariate statistics are found to be statistically significant, then univariate statistics are examined to establish where the differences are found^v. Alongside statistical significance testing we report effect sizes that signify the magnitude of direction of the finding. Together these findings give some guide as to the practical significance of the results.

The multivariate statistics indicate that statistically significant effects are found for Language [Wilks' $\lambda = .959$, $F(9, 1536) = 7.37$, $p < .001$, $\eta^2 = .04$], gender [Wilks' $\lambda = .934$, $F(9, 1536) = 12.08$, $p < .001$, $\eta^2 = .07$], and Major/Non-Major [Wilks' $\lambda = .873$, $F(9, 1536) = 24.81$, $p < .001$, $\eta^2 = .13$] justifying analysis of the univariate cases. The effect sizes for gender and Language are considered small to medium, and for Major/Non-Major medium^{vi}. Statistically significant interactions were also observed between gender and Language [Wilks' $\lambda = .983$, $F(9, 1536) = 3.02$, $p = .001$, $\eta^2 = .02$] and the Major/Non-Major and Language groups [Wilks' $\lambda = .985$, $F(9, 1536) = 2.68$, $p = .001$, $\eta^2 = .02$], although the effect sizes reported are relatively small^{vii}.

When English as a first (EFL) or second language (ESL) is considered (Table 5), differences are observed in six of the nine measures. ESL students rate three of the Darkness subscales (Exam Focus, Numbers, and Worry) higher than those students for whom English is their first language. Two of the Enlightenment measures (Achieving, Reality/ Meaning Behind Accounting) are rated higher by the EFL students than their ESL counterparts. However, Questioning is rated more highly by the ESL group than their EFL peers.

Table 5 here

Statistically significant gender differences (Table 6) are reported for four subscales: Achieving (males > females); Questioning (males > females); Reality/Meaning Behind Accounting (females > males); and Worry (females > males). No statistically significant variation is observed for the remaining five subscales.

Table 6 here

The largest variation within the sample is observed for the accounting as a major (Major) and accounting as a non-major (Non-Major) groups – table 7. Statistical significance is observed across eight of the nine measures. The Non-Major group rate each of the four Darkness measures higher than the Major group. By contrast, the Major group score four of the Enlightenment measures (Achieving, Enjoyment, Reality/Meaning Behind Accounting, Social/Economic Importance of Accounting) higher than the Non-Major group.

Table 7 here

6. DISCUSSION

The objectives of this paper were to: first, provide evidence of students' socially constructed understandings of their expectations of learning accounting using a large-scale and diverse sample of introductory students of accounting at two Australian universities; second, use our results to provide evidence of differentiation between student populations, which in turn provides evidence of how different individuals from different nations and continents, genders, and courses of study represent the subfield of learning accounting; and third, apply the sociology of Pierre Bourdieu to analysis the findings.

The results indicate a clear dichotomy between Enlightenment and Darkness factors. In Enlightenment, learning accounting is characterised by achievement, understanding and seeing a useful purpose in acquiring and applying its perspectives. This contrasts to the Darkness element of the learning accounting subfield where accounting is seen as something negative, imposed, and numerical in its language.

The ELAcc provides evidence of the subfield of learning accounting. In particular ELAcc captures elements of the doxa, habitus, and capital associated with the subfield. Where students occupy a space that is characterised by Enlightenment, the doxa of the subfield is emphasised; i.e., that accounting is perceived as a influential tool in understanding business, the economy, and society. Furthermore, the doxa of learning in higher education, questioning is also highlighted, meaning that students expect to engage in criticality, query and identify the underlying assumptions or principles on which accounting knowledge and its power is based. Achieving and enjoyment, the other scales of Enlightenment, represent in part the capitals of learning accounting whereby accounting is seen as a positive force, relished as an avenue of personal accomplishment and a positive source of academic, and eventually, professional identity. Where the discourse of Enlightenment is representative of

a student's habitus, the accord with the doxa of the field means the student will fit easily into the higher educational environment and acquire the necessary quantity and qualities of capital required for a successful professional career.

For those students whose perceptions are described by the lack of Enlightenment factor, possess an unorthodox view that accounting is a neutral and objective subject involving little subjectivity or uncertainty and that its study is mainly concerned with numeric manipulation. Students with these beliefs possess a paucity of the correct qualities and quantities of capital to study the subject with feelings of anxiety about the subject, they exhibit little interest in accounting, and their only aim is to pass the exam. Students whose learning is framed by the Darkness factor are effectively subordinate to the dominant discourse and dominant social actors of accounting. In such an instance, as their habitus is in conflict with the subfield's doxa, they will encounter symbolic violence meaning capital acquisition and a winning position in the field is unlikely to be attained. Or more simply, they are more likely to fail or not to continue their study of accounting.

Bourdieu often uses sporting analogies to illustrate his sociological concepts. For example, the idea of purity existing within the sport's values, the game for its own sake (Bourdieu, 1998). This extends to Bourdieusian field studies where such notions are described as an autonomous pole, defining those elements of a field that reflect the autonomous principles of the field and are somehow distanced from the rest of society (Webb *et al.*, 2002). For example, the accounting profession's belief that it operates in the public interest, as opposed to the private interests of firms and professional bodies (Paisey and Paisey, 2012), yet somehow finds the notions of public interest difficult to define in generic terms. This chimes with the academy's view of education, the love of learning for its own sake, institutionalised in the deep and surface learning paradigm which forms the backbone of most introductory teaching in higher education programmes which academic staff are typically expected to complete in Australia and the UK. In particular, learning becomes viewed as a scale from the passive acquisition of knowledge ('a bad thing') to, at the other pole, something that helps one change as a person ('a good thing'). ELAcc demonstrates the interested/disinterested dichotomy with its Enlightenment and Darkness factors; where accounting is seen as personally fulfilling, meaningful and an avenue to personal achievement, to a grim, pariah subject (Fisher and Murphy, 1995) requiring numerical manipulation, a focus on examination and assessment, and a source of worry and anxiety.

In particular, students for whom English is not their first language, the subfield of learning accounting is clouded by worry, of passing an examination, and encountering a subject perceived to be dominated by numbers. They are less likely to identify with a discourse of accounting as being meaningful or containing useful economic information, with a potentially valid social role. Similarly, for those not choosing accounting as a subject to major in are more likely to be captivated by feelings of Darkness rather than Enlightenment. These statistical findings suggest that non-traditional students, those for whom it is a secondary subject not of their choice, or who come from non-Anglo-Saxon, non-elite backgrounds deserve a different educational experience. Such an experience, would attempt to allay their fears of studying the subject and concentrate more on the meaning behind accounting and its wider role in the economy and society.

By not differentiating between different types of students essentially exposes the outsiders, or non-traditional learners, to a form of symbolic violence, where they are denied resources to see the potential of accounting as a subject and avenue to personal fulfilment or economic

success through career. Thus, the subfield of learning accounting provides a forum where ‘the lack of access to the profession for those whose capital is deemed insufficient to merit professional status’ (Malsch *et al.*, 2009: 212).

ELAcc highlights the need for those engaged in the subfield of learning accounting to become meta-literate, where they can move between different ways of seeing accounting (cf., meta-learning in the field of higher education research, e.g., Biggs, 1985; Meyer and Shanahan, 2004; Norton *et al.*, 2004; Wisker *et al.*, 2004). Thus the meta-literate accountant can recognise the different perspectives people will hold on critical accounting issues. Accounting then moves beyond a simple reflection of numbers and seemingly un-interpretable financial statements to a politicised, heterogeneous world where different actors within different fields and social contexts will hold on a particular issue.

For example, consider the field of corporate taxation. Multinational firms and their well-remunerated accounting advisors believe they act in shareholder interests by avoiding tax within extant legal frameworks. At the same time, politicians and policy makers chide multinationals in their manipulation of taxable profits to maximise avoidance while refusing to address the need to reduce the complexity of the tax system and encourage tax payment by the wealthiest corporations and individuals. Alongside these social actors sit political activists who undertake visible and vocal demonstrations against wealthy individuals and mega-corporations. The meta-literate accountant is better placed to recognise conflict, discuss and communicate financial information in a manner that makes sense to various interested parties and identify and mediate the quarrel of who pays for public services.

Although ELAcc represents the product of over ten years research effort, drawing on phenomenographic interviewing and various iterations of the ELAcc measure, the Bourdieusian analysis identifies gaps which other researchers might wish to extend in the future. In describing the subfield of learning accounting, the Enlightenment factor focuses in particular on components from the heteronomous pole, describing relations between economic values and business imperatives on the field. In particular, the personal project of career and the self is evident through the idea of achievement and success.

What Enlightenment captures less successfully in the field of learning accounting, is the autonomous pole, that part of a field which encapsulates the intrinsic values of the field itself and is detached from society. For some fields, such an autonomous pole might be easy to identify. Nurses, for example, would identify patient care; social workers might identify the need to protect children; and mechanical engineers, the beauty and efficiency of a machine. Accounting is perhaps more complex. Many accountants, for example, work in fields away from the routine accounting work in which they are trained and the learning accounting field becomes a prelude for a successful career in business. Future research then might wish to explore how those participants in the learning accounting subfield conceive of the notion of an autonomous pole. Such research could extend participation beyond students of accounting: to academics, as practitioners of the learning accounting field; and professional bodies that develop accounting curricula followed, to varying degrees, by universities. Increasingly, accounting departments in universities are treated as ‘cash cows’ with high-class sizes, high student to staff ratios, taught increasingly by professionally qualified rather than academically socialised accountants (Hopper, 2012). Autonomous pole conditions that extol virtues such as learning for learning sake or ideas of nurturing students to become model critical accounting citizens are consumed by heteronomous pole forces of

commercialism, needs to produce financial surpluses, achieve excellence in student ratings and research selectivity exercises (e.g., Neumann and Guthrie, 2002; Parker, 2010; Ryan, 2010). The learning accounting subfield then is dominated by heteronomous forces, driven by universities' need for financial performance and professional bodies' desire to produce future trainees that are amenable to constituent employers' needs.

Also, the Enlightenment factor of ELAcc recognises orthodoxy, constituting the received wisdom and status quo within a field. That is, the 'official history' of the field, recording accounting's role in the development of business and capitalist society. Heterodoxy is not captured by ELAcc. What values and beliefs challenge the received wisdom and status quo of the profession? The Enlightenment term implies an active participation in the professional accounting project. Radical and hyperbolic doubt, the capacity to critically challenge the beliefs and values of accounting does not seem to be a significant part of the learning accounting subfield, at least within introductory study.

Finally, the research highlights issues relating to universalise, whereby a set of values are treated as though they are universally applicable across every field. The students' approaches to learning paradigm, on which our research is in partly based, occupies an imperial position in the higher education literature. This paradigm reveres values such as the application of knowledge, learning for learning's sake, and contemplative reflection over matters such as the reproduction of information and a lack of criticality. The ELAcc identifies that Enlightenment and Darkness form part of the learning accounting subfield and that so-called surface approaches might be equally valid especially when dealing with non-traditional students. The surface elements of the learning accounting field represent building blocks that allow students access to further learning.

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TABLES

Table 1:
Description of ELAcc measures

<i>Measure</i>	<i>Observable</i>	<i>Description of observable</i>
<i>Panel A: Enlightenment measures</i>		
1. Achieving	Motivation	<i>The student has a strong motivation to succeed.</i>
2. Enjoyment	Motivation	<i>The student is motivated by the idea that the study of accounting is expected to be enjoyable.</i>
3. Questioning	Epistemological belief	<i>A view of knowledge that means that it is important to identify the underlying assumptions or principles on which it is based</i>
4. Reality/meaning behind accounting	Intention	<i>An intention to understand the reality/meaning behind accounting</i>
5. Social/economic importance of accounting	Epistemological belief	<i>Accounting is seen as enabling a new view of (or changing understanding of) business, the economy or society</i>
<i>Panel B: Darkness measures</i>		
6. Exam focus	Intention	<i>The student's main intention is to pass the examination</i>
7. Lack of interest	Motivation	<i>There is a lack of personal interest and accounting is perceived to be a dull and boring subject</i>
8. Numbers	Epistemological belief	<i>An epistemological belief that accounting is mainly about the study of numbers</i>
9. Worry	Feelings about nature of subject	<i>The student feels anxious about learning accounting</i>

Table 2:
Sample demographics

<i>Gender, Major, Language</i>	<i>Institution 1</i>	<i>Institution 2</i>	<i>Total</i>
	%	%	%
Male/female (M/F)	50/50	46/54	48/52
Major in accounting/non-major (Major/Non-Major)	50/50	34/66	42/58
English first/second language (EFL/ESL)	40/60	33/67	37/63

Table 3
Summary of ELAcc measures: alpha coefficients, factor pattern coefficients and squared multiple correlations

<i>Deep/Transformative measures (Panels A to E)</i>		<i>FPC⁽ⁱ⁾</i>	<i>SMC⁽ⁱⁱ⁾</i>
<i>Panel A: Achieving ($\alpha=.68$)</i>			
1	I want top grades in accounting so that I will be able to select from among the best positions when I graduate	.61	.37
2	I have a strong desire to excel in my accounting studies	.70	.50
3	I would see myself basically as an ambitious person and want to get to the top, whatever I do	.57	.33
4	I see getting high grades as a kind of competitive game, and I play to win	.43	.19
<i>Panel B: Enjoyment ($\alpha=.73$)</i>			
5	I'll enjoy being able to solve problems in accounting	.59	.35
6	I'll enjoy accounting because it is satisfying to get correct answer to a problem	.53	.28
7	I'll enjoy the rigour and precision of accounting	.66	.44
8	I'll enjoy using the abstract concepts that are a part of accounting	.50	.25
9	I'll enjoy the intellectual challenge involved in accounting	.67	.45
<i>Panel C: Questioning ($\alpha=.73$)</i>			
10	I think that it is important to question the basis on which accounting techniques are founded	.57	.33
11	It is important to be able to question the assumptions on which accounting information is based	.58	.34
12	In business it is important to be able to question accounting information	.45	.20
13	I think that it is important to question the theories on which accounting is based	.70	.49
14	I think that it is important to question the rules underlying accounting	.67	.44
<i>Panel D: Reality/Meaning Behind Accounting ($\alpha=.76$)</i>			
15	I shall try to understand the reality behind the financial statements	.54	.29
16	I shall try to see how accounting information is used in the real world	.62	.38
17	I shall try to understand the meaning and significance of financial information	.63	.39
18	I shall try to relate what I learn in accounting to the realities of business	.67	.45
19	I shall try to understand the role of accounting information in business	.65	.42
<i>Panel E: Social/ Economic Importance of Accounting ($\alpha=.77$)</i>			
20	Accounting helps us to understand the activities of an enterprise in a new way	.58	.33
21	Accounting enables us to generate new economic knowledge	.60	.36
22	Accounting changes our understanding of the business world	.65	.42
23	Accounting can transform our understanding of the business world	.71	.50
24	Accounting allows us to see the operations of business in different ways	.64	.40

⁽ⁱ⁾ Factor pattern coefficients (FPC)

⁽ⁱⁱ⁾ Squared multiple correlations (SMC)

Table 3 (contd.)

<i>Surface/ Accumulative measures (Panels F to I) ($\alpha=.$)</i>		<i>FPC⁽ⁱ⁾</i>	<i>SMC⁽ⁱⁱ⁾</i>
<i>Panel F: Exam Focus ($\alpha=.69$)</i>			
25	In learning accounting I'll aim to get just enough marks to pass the exam	.62	.39
26	I won't need to understand the concepts underlying accounting to pass the exam	.43	.19
27	In accounting I'll learn just enough to get by	.71	.50
28	In accounting, I'll just need to learn techniques in order to pass the exam	.63	.40
<i>Panel G: Lack of Interest ($\alpha=.87$)</i>			
19	Accounting is a dull subject	.71	.50
30	Accounting is a boring subject	.82	.68
31	Accounting does not currently interest me personally	.72	.51
32	Accounting is not a very interesting subject	.81	.65
33	Accounting is a dry subject	.77	.59
<i>Panel H: Numbers ($\alpha=.83$)</i>			
38	The subject of accounting mostly involves monetary calculations	.65	.43
39	The subject of accounting mostly involves calculations	.73	.53
40	The subject of accounting mostly involves numbers, figures and formulae	.74	.54
41	The subject of accounting mostly involves the use of mathematics	.70	.49
42	The subject of accounting mostly involves the application of numerical techniques	.76	.49
<i>Panel I: Worry ($\alpha=.79$)</i>			
43	I feel worried about learning accounting	.73	.53
44	I feel anxious that I may have a mental block when it comes to learning accounting	.63	.40
45	I am concerned that I shall find accounting a difficult subject	.77	.59
46	I am concerned that you need to be good at maths to do well in accounting	.42	.18
47	I am worried that I may not be able to make sense of accounting	.76	.57

(i) Factor pattern coefficients (FPC)

(ii) Squared multiple correlations (SMC).

Table 4:
Descriptive statistics, factor correlations, and goodness-of-fit-indices

<i>Nine measure model</i>	<i># items</i>	<i>Mean</i>	<i>St. Dev.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1. Achieving	4	2.89	.69								
2. Enjoyment	5	2.51	.60	.37							
3. Questioning	5	2.72	.55	.24	.28						
4. Reality/Meaning behind Accounting	5	3.04	.49	.40	.43	.42					
5. Social/Economic importance of Accounting	5	2.75	.54	.29	.42	.41	.51				
6. Exam Focus	4	1.20	.70	-.41	-.34	-.22	-.48	-.30			
7. Lack of Interest	5	2.31	.56	-.17	-.52	-.13	-.25	-.30	.35		
8. Numbers	5	3.44	.68	.02	.00	-.01	.05	.03	.14	.18	
9. Worry	5	3.04	.49	-.06	-.22	-.01	-.06	.00	.22	.31	.26

Model A: One-factor model (with 43 items)

χ^2 (859) = 13546.858; χ^2 /d.f. = 15.770; RMSEA = .084 (90% CI = .082-.085); CFI = .440; NNFI = .383; ECVI = 6.537

Model B: Nine lower-order factors; two higher order factors (Enlightenment, Darkness)(43 items)

χ^2 (850) = 3398.325; χ^2 /d.f. = 3.998; RMSEA = .038 (90% CI = .036 - .039); CFI = .883; NNFI = .870; ECVI = 1.741

Table 5:

MANOVA, Mean scores (St. Dev. in parentheses) English as a First Language and English as a Second Language

	<i>EFL</i> (<i>N</i> =579)	<i>ESL</i> (<i>N</i> =973)	<i>F, d.f., p</i>	<i>Inequality</i>
1. Achieving	2.95 (.69)	2.85 (.70)	8.34, 1, .004	EFL > ESL
2. Enjoyment	2.51 (.60)	2.51 (.59)	n.s.	
3. Questioning	2.68 (.59)	2.74 (.52)	4.21, 1, .004	ESL > EFL
4. Reality/Meaning Behind Accounting	3.06 (.47)	3.03 (.50)	5.27, 1, .022	EFL > ESL
5. Social/Economic Importance of Accounting	2.74 (.53)	2.76 (.55)	n.s.	
6. Exam Focus	1.07 (.66)	1.28 (.71)	42.65, 1, <.001	ESL > EFL
7. Lack of Interest	2.11 (.77)	2.05 (.79)	n.s.	
8. Numbers	2.29 (.69)	2.39 (.69)	12.54, 1, <.001	ESL > EFL
9. Worry	1.91 (.85)	2.04 (.72)	4.07, 1, .044	ESL > EFL

Note: Mean scores and st. dev.'s are standardised, i.e., shown as a value from 0 to 4.

Table 6:

MANOVA, Mean scores (St. Dev. in parentheses) across gender

	<i>Males</i> (<i>N</i> =754)	<i>Females</i> (<i>N</i> =798)	<i>F, d.f., p</i>	<i>Inequality</i>
1. Achieving	2.93 (.72)	2.85 (.67)	6.82, 1, .009	M > F
2. Enjoyment	2.51 (.62)	2.52 (.57)	n.s.	
3. Questioning	2.74 (.56)	2.70 (.54)	3.96, 1, .047	M > F
4. Reality/Meaning Behind Accounting	2.99 (.54)	3.08 (.44)	7.88, 1, .005	F > M
5. Social/Economic Importance of Accounting	2.73 (.56)	2.77 (.53)	n.s.	
6. Exam Focus	1.23 (.74)	1.17 (.67)	n.s.	
7. Lack of Interest	2.13 (.78)	2.01 (.77)	n.s.	
8. Numbers	2.34 (.70)	2.37 (.69)	n.s.	
9. Worry	1.86 (.78)	2.11 (.75)	46.90, 1, <.001	F > M

Note: Mean scores and st. dev.'s are standardised, i.e., shown as a value from 0 to 4.

Table 7:

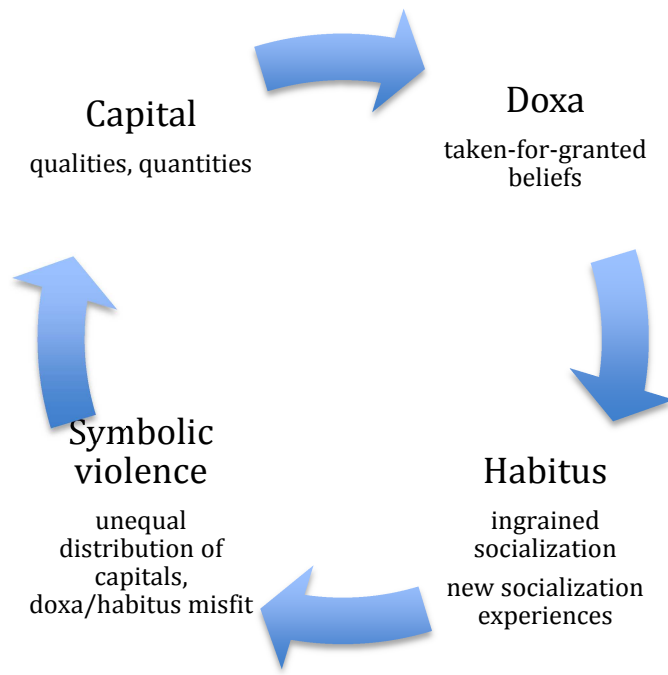
MANOVA, Mean scores (St. Dev. in parentheses) Accounting as a Major and Accounting as a Non-Major

	<i>Maj</i> (<i>N</i> =655)	<i>Non-Maj</i> (<i>N</i> =897)	<i>F, d.f., p</i>	<i>Inequality</i>
1. Achieving	3.00 (.65)	2.81 (.72)	38.04, 1, <.001	Maj. > Non. Maj
2. Enjoyment	2.66 (.54)	2.40 (.61)	64.09, 1, <.001	Maj. > Non. Maj
3. Questioning	2.75 (.53)	2.70 (.56)	n.s.	
4. Reality/Meaning Behind Accounting	3.10 (.48)	2.99 (.49)	15.48, 1, <.001	Maj. > Non. Maj
5. Social/Economic Importance of Accounting	2.86 (.52)	2.67 (.54)	43.15, 1, <.001	Maj. > Non. Maj
6. Exam Focus	1.09 (.66)	1.29 (.72)	33.16, 1, <.001	Non. Maj. > Maj.
7. Lack of Interest	1.77 (.76)	2.29 (.72)	182.25, 1, <.001	Non. Maj. > Maj.
8. Numbers	2.29 (.71)	2.41 (.68)	16.80, 1, <.001	Non. Maj. > Maj.
9. Worry	1.95 (.73)	2.02 (.80)	5.68, 1, .017	Non. Maj. > Maj.

Note: Mean scores and st. dev.'s are standardised, i.e., shown as a value from 0 to 4

Figure 1

The cycle of reproduction and transformation of the subfield of learning accounting
(adapted from Everett, 2002: 69)



ⁱ 20.6% of the tertiary student population, versus the UK's 14.7% and an OECD average of 6.7%.

ⁱⁱ Small variations in sample sizes are due to missing data.

ⁱⁱⁱ Psychometric examination of the measurement properties of the scores yielded by the inventory is beyond the scope of this paper intended for a critical audience but reported elsewhere for validation purposes (Authors, 2013) and to facilitate replication. Support is found for a nine lower-order, two higher order factor scale, which yields valid scores when applied to samples of men and women students majoring or not majoring, in accounting and where English is a first or second language. Additionally, concurrent validity is indicated by correlation with a measure of learning and predictive validity by an ability to predict academic performance (Authors, 2013).

^{iv} In addition to the analysis of FPC's, we also examined the factor structure coefficients (FSCs) as recommended by Graham et al. (2003). In general, few FSCs produced strong (> .4) loadings with other factors, although strong negative FSCs were noted for the five Lack of Interest observables and the Enjoyment measure.

^v The multivariate statistics used were Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root.

^{vi} For effect sizes measured using R^2 , and related indices such as η^2 , .01 is interpreted as small, .09 is medium, and .25 is large (Cohen, 1977).

^{vii} When the univariate cases are examined for the interaction between gender and Language are considered only Worry is found to be statistically significant ($p < .001$), with female ESLs scoring this measure higher than male EFLs. Considering the interaction between Major/Non-Major and Language statistically significant differences were found for the Exam Focus ($p < .04$), Lack of Interest ($p < .03$), and Objective ($p < .02$) measures, with ESL, Non-Majors rating each measure higher than the EFL, Major group.