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Developing Generic Skills in Accounting: Resourcing and Reflecting on Trans-Disciplinary Research and Insights

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Abstract

A study by the professional accounting organizations in Australia and New Zealand has developed a framework for competency-based standards for professional accountants and also provided a theoretical base for generic skills in accounting. Subsequently, a generic skills list was issued to universities for inclusion in the curriculum for accreditation. However, neither the framework nor the list has provided any guide for skills development.

This paper reviews research on generic skills in higher education to create a topography that relates the key features and common views identified in the literature. The topography, representing trans-disciplinary research and insights could then be used as a resource to guide accounting educators to design curricula and inform future research.

The following key features have been identified in the literature: 1) generic skills are discipline-dependent; 2) weakness in the conception of generic skills; 3) lack conceptual studies for specific disciplines; 4) substantial contributions have been made to teaching and learning; 5) pedagogy to emphasise developing students and not to focus on teaching items of skills; 6) prepare students to cope with situations in the future; and 7) pay special attention to student experiences for it is a key factor to both quality learning and competent practice.

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1. Introduction

In 1997, the two professional accounting organizations, the Australian Society of Certified Practising Accountants (ASCPA), and the Institute of Chartered Accountants in Australia (ICAA), jointly issued a revised accreditation statement urging tertiary institutions to explicitly teach a range of generic skills in their accredited programs (ASCPA and ICAA, 1997). The professional organizations expect accounting students to have acquired a range of generic skills by the end of their university studies and thus be work-ready to join the profession. The statement includes a list of generic skills areas that are commonly applied in practice. The professional bodies require full compliance to include the listed generic skills items in the core curriculum by the year 2000 (ASCPA and ICAA, 1997). There was, however, no further explanation regarding the listed skills or guidance on how to teach them provided by the professional bodies subsequent to promulgation of the statement.

Consequently, the type of generic skills and the manner in which they were included in programs (for compliance) varied in different institutions. Strategies ranged from token acknowledgment in the course outline (a statement of the importance of certain generic skills for accounting or for the unit) to the inclusion of assessable tasks such as group assignments or oral presentations that call for skills that students were in fact presumed to have. Evidence of the coordination of skills that were taught in courses and the continuity in the progression to higher level courses in the programs of study was also not generally apparent.

It will be in the interests of students, professional bodies, institutions (and faculties), and employer groups that the teaching of generic skills and the development in students are planned and systematically implemented in the curriculum. The grounding in generic skills in students is for applications in professional situations in the future. The aim of teaching generic skills should thus be to develop students into people with skills and qualities that are appropriate for a professional life after graduation and also to continue to develop such skills over a lifetime (Tempone and Martin, 2003). As will be apparent in this paper, much research in generic skills has been done in higher education in the past 20 or more years. Curriculum planning and designs in accounting could benefit from the existing research in higher education.

This paper reviews studies on generic skills teaching and learning in both the higher education and accounting education literatures. The review is presented as a topography that relates the philosophies and critiques, innovations and prescriptions, pedagogy and principles, and reports and findings in the literature. The purpose for constructing the topography is twofold. First, research in higher education could be described as theme-based, whereby investigators from different disciplines contribute discipline-related theories and approaches towards the themes investigated (Teicher, 2000). Accounting educators could tap on the trans-disciplinary insights, theories and principles that are identified and related in the topography. The approach, to exploit this characteristic of the literature, complements the objective of systematically designing research-informed curricula to develop students’ generic skills in tertiary accounting programs. Second, the research on teaching and learning generic skills in accounting that

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1Information was obtained by reviewing course outlines from some institutions, for example, Australia Catholic University, Australia National University, Charles Sturt University, Macquarie University, Sydney University and the University of New South Wales.
eventually emerges from the process of reviewing and exploring the literature will add to the overall topography.

The mandate for teaching generic skills in tertiary accounting programs by the professional organizations is relatively recent (ASCPA and ICAA, 1997). However, in the last decade there have been a number of innovative interventions relating to teaching generic skills, usually identified as writing, oral presentation and critical thinking skills, published sporadically in accounting education research journals. The emphasis on generic skills in higher education in general is not new, for a number of years, universities have sought to articulate the description of generic qualities and skills in graduate attributes and the nature of the education offered (Barrie, 2004).

Other professions like nursing, engineering, medical and law have emphasised the training of generic skills for a while. There is also a gradually growing body of literature on generic skills pedagogy in higher education in general. However, various terms and labels that relate to generic skills have been used in reports and studies in the literature. Examples of the different terms and labels used in institutional studies and government statements include the following. Bowden, Hart, King, Trigwell and Watts (2004) focus on the generic capabilities expected of the graduates of the Australian Technology Universities. Bennett, Dunn and Carré (2000) focus on core and generic skills in higher education and employment. The Higher Education Council (1992) focuses on generic skills, attributes and values as central achievements of higher education as a process. Mayer (1992) focuses on key competencies and the Dearing Report (1997) focuses on key skills for undergraduate studies at universities.

Bennett et al. (2000), Clanchy and Ballard (1995) and Hyland (1994) among others note the array of definitions and labels found in the literature and attribute the problem as having stemmed from the lack of empirical research, theoretical foundation and a sound conceptual basis in the enterprise. Barrie and Prosser (2004) comment that despite many reports on curriculum initiatives, at both institutional and local levels that have pointed out the weakness and limitation in the literature, there have been few theoretical and conceptual studies written.

The next section reviews the literature. Section 3 discusses the research on the theory and conception of generic skills in accounting. Section 4 presents the topography of the literature as a resource to inform and guide teaching and learning generic skills in accounting and future research.

2. Review of the Literature

Studies from both higher education and accounting education relating to generic skills are reviewed and presented as a topography that links and relates the key features in the literature identified in the studies. The review initially identifies the key views and theories in the studies. The key features of the literature are gradually developed by relating these views and theories that are common and consistent in the studies. The studies are classified into subsections according to the contributions that they make towards developing a particular feature. In Section 4, the topography of the literature, characterised by a wealth of trans-disciplinary research and resources, relating and consolidating the key features that have emerged in this section and the next, is presented.
Critiques and pedagogy issues

Studies that have critiqued the prescriptive nature and power-laden push for a skills-focused curriculum in higher education are reviewed in this sub-section. These studies also question the origins of the skills movement and are contentious of the consequence of a skills-led curriculum to knowledge development and learning in higher education, especially if the notion of skills remains vague and conceptually weak. Some of these studies also give insights into pedagogy issues in skills learning and development.

In the British context the push for a more skills-oriented curriculum in higher education goes back about 20 years ago following the recommendations in the University Grants Committee (1984) report, cited in Bennett et al. (2000). Not surprisingly given the status of the Committee, subsequent to the report there was much emphasis placed on skills in one form or another in most quarters of higher education. The mention of skills also became obligatory, especially in government reports (Barnett, 1994).

Barnett (1994) is concerned that there is a real threat that the ideology of academic competence will be replaced by the ideology of operational competence if higher education pursues this course without due guidance. He further argues that if universities continue to succumb to the pressure of modern society and the mandate of the state, the ideals of higher education will be changed fundamentally. He is concerned that understanding will be replaced by competence, insight replaced by effectiveness and rigour of interactive argument replaced by communication skills.

Barnett (1994) also asserts that if skills are to stay on the higher education curriculum, it is both misguided and inappropriate to focus teaching on a prescribed list of skills. This view is shared by Bowden and Marton (1998), Clanchy and Ballard (1995) and Sandberg (2000). As knowledge and understanding are central to higher education, skills must be related to specific disciplines and associate with knowledge at that level. To justify presence generic skills in higher education they must contain complex cognitive components and best taught in the discipline context (Bowden et al., 2000; Bowden and Masters, 1993; Clanchy and Ballard, 1995).

Barnett (1994) further provides explanations for the term ‘skills’ in the higher education context. He points out that judgement and skills are not separate; the appropriate skills identified as necessary for a situation is dependent on the understanding and judgement of the situation by the person (Bowden and Marton, 1998; Sandberg, 2000). The relatedness of knowledge, situation and judgement is reinforced in the relational model of observable practice and underlying capacities in Bowden and Masters (1993) that connects knowledge, generic skills and real world experience to develop creativity and capabilities for making intellectual judgements.

Ten years later Barnett (2004) writes again with insight into the pedagogical challenge of the extant skills affair asserting that higher education learning in the world today should extend beyond knowledge, skills and the judgement of situations (Barnett, 1994). He describes the world today as one that is changing rapidly and that the changes bear on the being. This type of change also introduces a form of uncertainty in the person. In addition to the rapid changes, the world is also subject to a multiplicity of interpretations that are incompatible and in conflict. Barnett (2004) uses the term

Due to the scope of the current study, the following discussion is only an extract of Barnett (1994).
supercomplexity to describe this state of the world; and asserts that supercomplexity is intrinsic to the modern conception of the university.

Curriculum programs therefore need to be developed around the idea that students are to be prepared for a future that is largely unknown. Bowden et al. (2000), Bowden and Marton (1998) and Bowden and Masters (1993) too emphasise this view in their studies. Barnett (2004) further argues that just learning or knowing about uncertainties is insufficient in a supercomplex world due to its rapid changes and the multiplicity of interpretations. Learning should then be about how to live with uncertainty. Learning in such a world would have to be learning understood neither in terms of knowledge or skills but of human qualities and dispositions. The education task is therefore not an epistemological task but an ontological one.

Thus, a double educational task arises. First in bringing students to a sense that all descriptions of the world are contestable and, second, to the understanding that the situations in which they are placed and including themselves are contestable. In other words, just knowledge and skills are not sufficient, what is really important is the students’ sense of themselves and their confidence (not to be destabilized when contested or challenged). Higher education in a radically unknowable world should, according to Barnett (2004), pay attention to 1) understanding (knowledge), 2) acting (skills) and 3) being (a self-being of having some security in the world). This kind of pedagogy engages students as persons, and not merely knowers. For this type of person, their relationship with the world is “characterized by carefulness, thoughtfulness, humility, criticality, receptiveness, resilience, courage and stillness.” (Barnett, 2004: 258). A similar point is made in Barnett (1994: 68). Although not as articulate as Barnett’s (2004) philosophic piece, a number of studies have either alluded to or explicitly stated the importance of focusing on the learner, especially the experience, in skills teaching and learning programs (Bowden et al., 2000; Bowden and Marton, 1998; Sandberg, 2000; Tempone and Martin, 2003).

A key weakness in the literature is the vagueness in the conception of generic skills and the proliferation of terms in the literature in general. This weakness has been identified in a number of studies, for example, Barrie (2004), Bennett et al. (2000), Bowden and Masters (1993), Fallows and Steven (2000) and Sumson and Goodfellow (2004). The problem is also endemic in government reports. Bennett et al. (2000) and Hyland and Johnson (1998) point that out in the Dearing Report (1997); while Clanchy and Ballard (1995) are highly critical of the same problem in the Higher Education Council (HEC) Report (1992).

Clanchy and Ballard (1995) are also concerned that the wish-list approach advocated in the HEC Report will encourage fragmented curriculum and mechanistic approaches to teaching and learning. They assert that an appropriate approach is one that focuses on and complements the current goals and processes that exist in the university. Therefore generic skills in higher education should be suitably taught in the context of the specific disciplines (this idea is shared in Barnett, 1994; Barrie, 2004; Bowden and Marton, 1998; Bowden et al., 2000; Bowden and Masters, 1993). English, Bonanno, Jones and Webb (1997), English, Bonanno, Ihnatko, Webb and Jones (1999) and Sin, Jones and Petocz (2005) apply this principle to integrate the teaching and learning of generic skills with accounting content in first year accounting.
Clanchy and Ballard (1995) further explain that the forms of skills are determined by the structures of knowledge within the context of the discipline. The discussion of the context-dependent characteristic of generic skills and its form is taken one step further in Bowden et al. (2000). They stress the relevance and importance of intra-discipline variation of situations at the relating level of skills learning outcomes.\(^3\)

In sum, a number of studies share the view that generic skills in higher education must incorporate cognitive components (at higher education level) and are best taught within the context and knowledge of the discipline. Generic skills learning and development are for future application in the unknown future. The determination of an appropriate set of generic skills to be applied in any situation (in the future) is dependent on the individual’s understanding, interpretation and judgement of the situation.

Another common view is the weakness in the conception of generic skills in the literature. The identification of the problem is not confined to the early stages of the development of the literature, but prevailed over time throughout the literature. The discipline and context dependent characteristics of generic skills noted in the studies above suggest that it is difficult to conceptualise and provide a universal definition for generic skills. Barrie and Prosser (2004) suggest that the problem may be partly due to limited studies on the theory and concept of generic skills compared to the many reports on skills teaching and curriculum development published to date.

The following two sub-sections review theoretical studies on teaching and learning generic skills, and curriculum development respectively.

**Teaching and learning generic skills**

Bowden and Marton (1998) concur with the others that learning generic skills is about learning based on what is known presently for application in the future that is largely unknown. Students’ mastery of a list of generic skills does not necessarily ensure their capability to perform well in professional situations in the future – a problem observed by employers. They further explain that students may have learnt a set of generic skills that are applicable in a specific situation or in different situations. However, in their professional lives later, the same situations that they have learnt from will not be encountered again. They will meet with variation of situations. Bowden and Marton (1998) assert that it is appropriate to ground students in their capability to see the critical aspects of situations that characterise the variation of situations. Sandberg (1994), (cited in Bowden and Marton, 1998), points out that the most fundamental form of learning is a change in the way one sees something.

Bowden and Marton’s (1998) approach to teaching and learning focuses on enriching the learning experiences of students. They recommend curriculum that exposes students to variation of experiences. More importantly, curriculum should engage students in learning activities that encourage a differentiated understanding of the critical aspects of situations to develop meaningful understanding and conception in the learning experience. Their approach contrasts with the skills based prescriptive approach.

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\(^3\)The relating level is where the person has the capability to apply his skills appropriately in the variation of a type of situation within the context of his profession. For example, a doctor will apply a different form of communication skills when reporting a diagnosis to his supervisor from the one used when explaining a prognosis to a patient.
advocated by the profession and government (for example, ASCPA and ICAA, 1997 and the HEC report, 1992).

Opportunities to see the different views of peers in their understanding and analysis of situations in group-work and discussions are useful learning experiences that will broaden students’ own views and change their conceptions. Bowden and Marton’s (1998) theory of learning is supported empirically in Sandberg (2000). Sandberg (2000) concludes that the knowledge and skills necessary to perform a task competently is framed by the conception of the task from experience. Bowden et al. (2000) too make the point that the task of teachers is to create opportunities for students to understand their own developmental pathways as they experience variations.

Bowden et al. (2000) use the term generic capabilities in their study. Generic capabilities are defined as attributes that go beyond discipline expertise or technical knowledge, expected of graduates of the Australian Technology Network (ATN) universities. Through a reflective and developmental process involving several staff from the ATN universities, a conceptual framework is developed to guide staff in designing curriculum and developing programs.

A key idea that has emerged from the project is the importance of adopting a student-centred approach rather than a teacher or content (skills list) approach in program development. There is also an emphasis for students to define their own learning pathways and monitor their own progress in these programs. There are three key points that underpin the success of this approach in the framework. First, there are qualitatively different ways in which students come to understand or view generic capabilities (Bowden and Marton, 1998; Sandberg, 1994). Students who have more sophisticated views or understanding are more likely to possess the capacity to operate in a range of situations or variation. The report also makes the point that the experience of students will influence how they engage with the learning process. Further, differences in the experience of students will result in different outcomes in different situations encountered. Tempone and Martin (2003) document the influence of the life experiences of students have on their learning experiences, conceptions (ranging from simple to complex) and understanding of the course. Programs should therefore focus on learning experiences and aim to develop student understanding and conception of situations.

Second, the focus of curriculum should be on developing student ability to apply knowledge to deal with new situations in the future. For it is far more important to have the capability to judge a new situation (Bowden and Marton, 1998) and to develop understanding of situations (Sandberg, 2000) than to learn a list of skills (Barnett, 2004; Bowden and Marton, 1998; Clanchy and Ballard, 1995; Sandberg, 2000). Third, both the institution and the students themselves should be involved in the monitoring of student development.

In sum, the ideas and theories forwarded in the studies discussed earlier underpin the key views and principles in the framework developed in Bowden et al. (2000). The next subsection reviews curriculum and program development reports and studies noting the theories and concepts in the literature that have guided the strategies and interventions.
Curriculum development and teaching strategies

Studies and reports on curriculum development and teaching strategies at both institutional and individual course levels are reviewed. The studies at individual course levels selected for discussion are mainly from the accounting education literature. The review notes the theories underpinning the interventions, and attempts to compare and relate the studies.

Fallows and Steven (2000) report on the generic skills curriculum development and teaching strategies at institutional level from a collection of works and projects that have been done in a number of institutions around the world. Their report is chosen for discussion here because it gives an overview of the key issues, approaches and philosophies in program implementations from multiple disciplines.

In 1994, the University of Luton decided to implement a university wide skills-recognition curriculum that fully recognised the need to develop in every student of the university the skills needed for smooth progression from higher education to employment. The program at the University of Luton motivated Fallows and Steven (2000).

The cases included in Fallows and Steven (2000) are mainly models used by institutions as a whole. To a lesser extent, approaches taken at individual levels for specific modules or courses and personal reflection on issues relating to skills are also included. The problems of the lack of a universal definition for generic skills and term proliferation discussed previously are more apparent in Fallows and Steven (2000) as the reports compiled have come from multiple disciplines and institutions. A list of meanings of skills and the type of skills referred to in the cases reported has been provided (Fallows and Steven, 2000: 8). The items on the list include transferable skills, key skills, common skills, core skills and skills in general.

Fallows and Steven (2000) make a number of key observations in their report. In summary, despite a fair level of agreement in the general nature of skills that was deemed important there is substantial variation in the implementation strategies adopted by the different institutions. The method of implementation also differs; some institutions offer adjunct skills modules or courses while others choose to integrate the skills components into the existing modules or courses. The University of Luton adopts the latter. The emphasis that is placed on the importance of the type of skills differs among institutions, reflecting the philosophic, historic and organizational structure differences among the institutions. The assessment of student performance in individual skills areas (implied acquisition of the relevant skill) has been a universal problem encountered. The usual approach to avoid the problem is to record on the skills transcript that the student has engaged with the skills program and also to detail the manner in which the skills has been developed. The general conclusion is that the greatest benefit of these programs is that students recognize that they are developing these skills and have gained full confidence in their utilisation. The conclusion concurs with Brown and McCartney (1995) who suggest that the ability to learn, adapt, anticipate and create, in addition to the specific skills learned is the overarching ability for successful and competent professional practice.

Some relations could be drawn between the observations made in Fallows and Steven (2000) and the theories and principles discussed in the preceding two subsections. Assessment of the learning outcomes of skills has been identified as a common problem.
among the institutions. Although the papers reviewed earlier have made substantial contributions towards the teaching and learning of generic skills, they are relatively silent on the issue of assessment. However, a strong point that is relevant to the assessment issue, though indirectly, has been made by a number of studies. That is, curriculum that focuses on teaching a list of skills is not an appropriate approach. Therefore, assessing whether students have acquired particular skills in the course too is not the right way to proceed. Bowden et al. (2000) make the point that because the levels of development are dependent on the students’ experiences, they should have an input into monitoring their own development.

Barnett (1994; 2004) stresses that higher education learning goes beyond the acquisition of knowledge and skills, it is about nurturing in students qualities of criticality, resilience, courage (and the like) and self confidence to deal with the unknown world after formal education. Fallow and Steven (2000) report on the approach of describing student engagement and experience in the skills programs in the transcript, and the conclusion drawn by institutions that the greatest benefit lies in students’ recognition of their own development and the full confidence in their utilization. This approach concurs with the insights of Barnett (1994; 2004) and Bowden et al. (2000).

Moving onto studies on curriculum designs and teaching innovations at individual course levels, a very successful two-semester program that facilitates the development of critical thinking and writing skills in first year accounting has been running for a number of years at Sydney University. The program also helps students to learn the subject matter in first-year accounting simultaneously.

The project commenced in 1994 and is documented and reported in English et al. (1999). Before the program, poor writing skills and low quality written assignments were observed in students’ work in general despite the emphasis on written work in the first-year accounting course. The project was motivated by the need to provide remedial support for students to help them improve their writing skills and written work. Through careful analysis and discussions with specialists, it was ascertained that the problems were due to the pervasive lack of wide and critical reading, clear focus and comprehensive treatment of subject matter, and reasoned argument in student ability.

It was decided that it was necessary to redesign the curriculum in tutorials to adequately address the elements of the problems. The new learning situation involves engaging students in activities like reading and analysis of texts, guided group discussions, self and peer evaluation and assessment and writing exercises. These activities are aimed at developing content knowledge and critical thinking to a standard expected in the accounting program. The theory underpinning the design and development of the intervention is based on the framework of functional linguistics that explains how the socio-cultural purpose of a piece of writing is embodied in its language and culture (Halliday, 1985). English, Luckett and Mladenovic, 2004 extend the original work in English et al. (1999) with an added objective of changing students’ negative perceptions of accounting. They provide empirical evidence that confirms the effectiveness of the overall intervention.

As described in English et al. (1999), the intervention does not aim nor is motivated to teach skills per se, the aim is to improve the quality of student learning especially in their writing skills and written work. However, English, Bonanno, Jones and

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4 The course coordinator works in collaboration with specialist staff from the university’s Learning Centre.
Webb (1997) highlight the skills development aspect of the project and report the skills development outcomes. They identify knowledge acquisition and conversation skills, knowledge processing skills, knowledge application skills and interpersonal skills as having been developed in the changed learning situation. Feedback from students indicates that most of them perceive themselves to have benefited from the development of communication, intellectual and interpersonal skills embedded in the course.

Sin, Jones and Petocz (2005), similar to English et al. (1999) in a number of ways, document an initiative that embeds the learning of analytical thinking and written communication skills in the accounting content in a large first-year accounting course. The requirement to comply with the accreditation guidelines in the accreditation document (ASCPA and ICAA, 1997) partly motivated the project.

The intervention is a series of three accounting-content based written assignments, assigned over the course of a semester, designed to integrate the concurrent development of generic skills in accounting with the concepts, principles and practices of accounting. A key feature of the intervention is the compulsory exercises that precede the final writing up of assignment tasks. The exercises are content-focused learning materials, adapted from task types currently used in language teaching to promote the assimilation and transformation of new knowledge. The assignments mostly require the final answers to be written in business document format. Students also have the opportunity to engage in problem solving, ethical reasoning, and judgement and creativity in more complex situations in the third assignment.

The targeted learning outcome is the ability to communicate clearly and succinctly, in a written answer, a knowledge and understanding of the relevant accounting concepts, while simultaneously fulfilling all the communicative requirements of a realistically represented situation. A detailed set of marking criteria for assessing student learning outcomes drawing on the SOLO model as developed by Biggs and Collis (1982) is given to markers and students in the assignment package. It describes the required learning attainment at each level in a hierarchy. Consistent with the objective of the approach to integrate generic skills with accounting content, the descriptions of the learning attainment attempts to meld considerations of content and expression.

Sin, Jones and Petocz (2005) describe the evaluation of the intervention along three different parameters. The results from the analyses show clear improvements in learning outcomes as student progressed from the first to the third assignment. A statistically significant association is found between high levels of learning outcomes in the third assignment with high performance in the final examination. The accuracy of self-assessment also improved significantly after the feedback from the first assignment.

The outcomes of the intervention from a qualitative evaluation are reported in Jones and Sin (2004). Students, especially overseas students and those from non English-speaking backgrounds, comment on their improved writing skills and confidence gained from completing the assignments. Students in general also believe they have achieved a better understanding of accounting concepts and principles.

Sin, Jones and Petocz (2005) conclude that a change in the undergraduate curriculum in accounting programs, to bring back written assignments that have been abandoned due to mounting student numbers, is clearly called for. The findings in English et al. (1997) and English et al. (2004) discussed above also support this conclusion. Other studies in the accounting education literature that focus on
communication skills, both written and oral include Stanga and Ladd (1990), Reinstein and Houston (2004) and Rosner (2000). The Director for Education at CPA Australia advised the inclusion of an additional chapter on oral communication and presentation in Jones and Sin (2003). There is also an emphasis from the professional organizations, employers, and accounting practitioners that graduates should have strong communication skills and especially written communication skills when they join the profession (Albrecht and Sack, 2000; Forey and Nunan, 2002).

There are also a number of studies that describe projects for enhancing generic skills development found in the literature. Kern (2000) documents a method of structuring financial statement analysis projects to enhance the development of students’ critical thinking skills. Sawyer, Tomlinson and Maples (2000) develop case studies for taxation students to provide an experiential learning environment. Weil, Oyelere, and Rainsbury (2004) examine students’ perceptions of the use of case studies to develop core competencies in a professional accounting program. Students perceive major benefit in improving their ability to examine a situation from more than one perspective and also to consider alternative solutions. De La Harpe, Radloff and Wyber (2000) describe how a business department has identified a set of generic skills to be taught to all undergraduate students and then adapted the project to teach skills in the contexts of other disciplines. Gammie, Gammie and Cargill (2002) highlight a strategy that attempts to facilitate the development of personal skills in an undergraduate accounting program. They find that skills development using an embedded approach within the course is insufficient. The initiatives reported in these studies are mainly motivated by institutional requirements or personal interests to enhance generic skills development, the interventions usually do not have an underpinning theory.

Although teaching is an obvious factor to skills learning and development, very few studies have focused on or considered the teacher. Among them is Leggett, Kinnear, Boyce, and Bennet (2004) who examine the perceptions of students and staff about the importance of generic skills in science. Students and staff are given a list of skills and asked to rate their importance. They are also asked to list other skills that they thought are important. The analysis shows that third-year students rate higher order skills like critical thinking more highly than students in the first year. Further, student and staff perceptions tend to converge in the third year but not so in the first year. In another study, Bolton and Hyland (2003) investigate the teaching practices and perceptions of key skills of teachers from seven Colleges of Further and Higher Education in the Eastern Counties of England. Their analysis of transcripts from semi-structured interviews shows much commonality of practice and perception but there were also distinct differences. Interestingly, most of the differences were between individuals rather than between colleges. The latter finding seems to be at odds with the discipline-dependent characteristic of generic skills where a difference in perceptions is expected for the different colleges.

5 The accounting professional organization ASCPA is now known as CPA Australia.
6 Jones and Sin (2003) explain and elaborate upon each major skills category on the generic skills list issued with the accreditation statement. It is a textbook that provides guided exercises for teaching and developing generic skills for first year accounting students.
Studies that focus on learner experience

Studies reviewed earlier in both the critiques and pedagogy issues, and teaching and learning generic skills subsections, have emphasised the importance to focus on the life and learning experiences of students in generic skills pedagogy. However, not many published studies on curriculum development have focused on this aspect.

Tempone and Martin (2003) explore the ways in which university students develop knowledge and expertise commensurate with the practice of proficient professional. They are interested in knowing how students develop into people with knowledge and skills that are appropriate for a professional life on graduating and that also develop over a lifetime. The purpose of the inquiry is to inform teaching in the classroom to ground students (future professionals) in the knowledge and practice of the profession.

They designed a curriculum for knowledge and generic skills development that draws on the relational model of observable practice and underlying capacity in Bowden and Masters (1993). The (Bowden and Masters, 1993) model shows the linkages or interaction of practice (experience), discipline knowledge and skills achieve effective learning. Skills in the model are meaningful only through linking with practice and knowledge. Tempone and Martin (2003) set an assignment that required the analysis and interpretation of a company’s financial performance over a three-year period. The assignment task necessitates the iteration of the three components in the relational model.

To gain insight into the ways cohorts of students from different backgrounds and experiences (life and work) learn, Tempone and Martin (2003) use phenomenographic analysis to explore students’ learning experiences to identify the qualitative variations in learning conceptions and approaches. They also observe closely the level of generic skills that students employ as they engage in the learning activity in doing the assignment. The analysis shows that particular generic skills can be assigned to the categories of approaches that have emerged in the phenomenographic analysis. The approaches range from having the narrowest focus on the requirement of the assignment to the broadest focus on the history and future of the company. In other words, students that approach the task at lower levels address the demands of the assignment, and students that approach the task at higher levels address the multiple demands of perceived professional practice. Lower level generic skills (simple assignment-focused problem-solving skills) are associated with the approaches with a narrow focus and higher level skills (communication of findings to management, this level subsumes lower level skills like assignment focus problem-solving and analytical skills) are associated with approaches with a broader focus.

Results from the analysis also show that the iteration between theory and practice in accounting and the aspects of experience are means of developing broader conceptions of and approaches to their learning. These broader levels are in turn associated with developing higher level generic skills. They conclude that curriculum designs should include learning activities that develop a broader conceptions and approaches to learning, for at these levels, development in more advanced generic skills that are valued in professional practice, will eventuate.

Philips and Bond (2004) use phenomenographic analysis to explore student learning experiences in critical thinking when doing a problem-solving task in a
management course on critical analysis and communication. They are interested in knowing the extent and level of critical thinking that students engage in when solving the problem. Four levels of critical thinking emerge from the analysis of learning experiences, they range from simply following a prescribed process at the lowest level to the highest level that evidently involved multi-dimensional attributes. The results, however, are disappointing in that most students were engage in critical thinking at very simple levels. To acquire critical thinking skills for the task, students will have to engage in a process where there is interactive disengagement and engagement, not many students are engaged at that level. Philips and Bond (2004) conclude that insights of students’ learning experiences should be an input to curriculum development and the learning environment.

Sandberg (2000) is not strictly a study on skills or competence in higher education but it is reviewed here because it has important implications for the teaching and development of generic skills. Sandberg (2000) argues that the approach to competence at work as constituted by a specific set of attributes is limiting. He asserts that the meaning or conception of work for workers as derived from their experience is the key factor for improved competence and optimal performance in a task. This is because the knowledge and skills necessary to perform a task competently is framed by the conception of the task from the experience of the person.

In his study of engine optimization using phenomenographic analysis, he identifies three qualitatively different ways of conceiving optimization work. The analysis also shows that the three conceptions constitute three distinctive forms of competence. Moreover, the conceptions do not just give rise to variation in competence but a hierarchy of competence is established in terms of an increasing comprehensiveness of conceptions.

Sandberg (2000) concludes in his study that there are implications for skills development in higher education from the findings. First, there should be a shift from describing or incorporating in curriculum a list of skills to be taught (Barnett, 2004; Bowden et al., 2000; Bowden and Marton, 1998; Clanchy and Ballard, 1995) to the focus on the meanings or conceptions of skills and competence in the learner (Tempone and Martin, 2003; Philips and Bond, 2004). Second, and more importantly, there is a need to design teaching and learning situations that engage students in learning activities that enrich their experiences and broaden their conceptions. A common view shared with Tempone and Martin (2003). 7

3. Theory of Generic Skills in Accounting

The Bedford Committee Report (American Accounting Association, AAA, 1986) introduces the idea that a successful professional accountant of the future would have to possess a range of skills like critical thinking, interpersonal and life-long learning skills, in addition to technical knowledge. A few years later, the Accounting Education Change Commission (AECC) observed that programs of accounting education have not kept pace with the requirements in the Bedford Committee Report. Consequently, a position statement stating the Commission’s aims for needed changes in accounting education programs (Accounting Education Change Commission, AECC, 1990a) was issued. The

7 A similar point is made in Petocz and Reid (2003) for teaching and learning statistics.
statement emphasises that graduates should be taught to learn, that is, possess life-long learning skills and also the importance of graduates to possess a range of skills, like intellectual, interpersonal, accounting and communication skills, (stated in Appendix B of the statement) at entry level to the profession. In another publication by the AECC (Accounting Education Change Commission, 1990b), it urges accounting and business faculties to give priority to teaching, curriculum and course development, and to establish reward systems that reflect this priority. Research into generic skills development, curriculum improvement, skills perceptions, and the like was motivated and published as consequential spin-offs from the AECC’s published directions.

The directions of the AAA and AECC have significant influence on their counterparts in Australia. In 1992, ASCPA, ICAA and the New Zealand Society of Accountants agreed to pursue the development of Competency Standards for Accountants in the two countries and commissioned Professor William Birkett from the University of new South Wales to head and undertake the project. The comprehensive study for the project documented in the discussion paper Competency Based Standards for Professional Accountants in Australia and New Zealand (Birkett, 1993) forms the basis of the generic skills drive in higher education by the professional accounting organizations.

The Chair of the Competency Standards Steering Committee, Murray Wells, commended the study in stating that:

“...most comprehensive study ever undertaken into the skills and knowledge of a professional group…”

“Competency standards have the potential to change our views of the most appropriate way of training accountants and of testing their suitability for admission to a professional body in Australia and New Zealand.”

“The standards provide a qualitative benchmark for practitioners, in planning and improving the services they provide. Similarly they provide a basis for assurances to the public by professional associations about the quality of services provided by the members. They frame educational processes and provide clear objectives for professional continuing development programs”

Quoting from the preface (p.v) in Birkett (1993).

In 1993, the professional bodies accepted and endorsed the recommendations in Birkett (1993) for Competency Standards for Accountants and ultimately published Competency Standards and Assessment Structures for Professional Accountants in Australia and New Zealand (Birkett, 1997).

Birkett (1993) explains that competency can be defined with reference to particular types of job performance in terms of what is to be performed and how well a performance is to be constituted. In practice, competency amounts to a demonstration of the successful negotiation of a range of task configuration through the selective use of individual attributes. Competency is realised in performance and performances thus

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8 Appendix B in the AECC statement describes the composite profile of capabilities needed by accounting graduates. The other items on the lists are general knowledge, organisational and business knowledge, accounting knowledge, and personal capacities and attitudes.
defined, are referred to as competency standards. Competency standards thus involve an appropriate linkage between tasks to be performed, the contexts in which tasks are to be performed, specific performance criteria, and individual attributes (Birkett, 1993: ix). It is the ‘individual attributes’ factor in performance that is of particular relevance to the current research on teaching and learning generic skills in higher education.

Birkett (1993) is an extensive study. The project delineates six fields of accounting practice. They are auditing, external reporting, insolvency and reconstructions, management accounting, taxation and treasury. Each field of practice is considered in reference to three types of location: public practice, industry and commerce, and the public sector. The contextual dynamics applicable to each field of practice are also referenced, in terms of the ambiguities, contingencies and change that have to be addressed in practice.

The project uses an Incidents Study to gather data on typical and critical incidents experienced by practitioners at different career levels (being competent, proficient and expert) in each field of practice. About 100 practitioners contributed close to 200 incidents. Each incident was particularly analysed to establish the individual attributes drawn on in task performance.

Individual attributes that are entailed in the outcomes of task performance are explicitly described and interrelated in the Competency Standards. Thus they are seen as elements of competent professional practice, and ‘skills’ is the most frequently used term for referring to individual attributes in these documents. The identified skills from the Incidents Study were categorised into particular types of cognitive and behavioural skills using a skills taxonomy. As professional work requires action, supported by decision processes, it also involves the exercise of instrumental skills, thus both cognitive (intellectual) and behavioural (instrumental) skills are involved in securing performance outcomes. The skills taxonomy in Birkett (1993) consists of two categories of skills, cognitive and behavioural, each skill area under the two categories is described as follows.

The skill areas under **cognitive skills** are:

- **Technical skills**: following defined routines with some mastery (eg. tasks to be performed are predefined, and performance involves the exercise of pre-focused and pre-developed skills);
- **Analytic/construction skills**: problem identification or task definition and the structuring of prototyped solutions or performances (eg. discrimination, classifications, analysis of arguments or situations, problem structuring, the application of concepts or models, the design of prototype solutions to problems, the construction of arguments);
- **Appreciative skills**: making complex and creative judgements, often in situations of ambiguity (eg. problem or opportunity finding in complex or ambiguous situations, making reality, value or instrumental judgements, making complex appreciations or evaluations, exercising creativity and being innovative).

The skill areas under **behavioural skills** are:

- **Personal skills**: handling oneself in situations of challenge, stress, conflict, time pressure and change (eg. having positive attitude, proactive and reflective attitudes about one’s own performance);
- **Interpersonal skills**: securing outcomes through interpersonal interactions (e.g., ‘people’ skills, listening, empathy, communication, motivation, team management);

- **Organisational skills**: securing outcomes through the use of organisational networks (e.g., accessing and using power and culture, building and activating intra- and inter-organisational networks, representing an organisation).

The list of generic skills areas in the joint accreditation statement issued by the professional organizations in 1997 (ASCPA and ICAA, 1997), includes all the skill areas described above (except organisational skills, and technical skills renamed as routine skills on the list). These skills are commonly applied in practice and are valued by both employer groups and the professional bodies (Birkett, 1993).

A number of comparisons could be drawn between Birkett (1993) and the literature. The literature has identified the relevance of the relations among knowledge (knowledge capability in Bowden et al., 2000), generic skills, and experience (work and life) in the capabilities for making intellectual judgements for actions in situations or variations of situations. The generic skills areas listed under the categories of cognitive and behavioural skills in the taxonomy include all of these factors, and Birkett (1993) explains the relations of these factors in professional work. The description of appreciative skills highlights the relations of these factors. The broadness of the study that includes all the six fields of accounting practice saw the importance of contextual dynamics in the exercise of skills in professional situations. Personal skills in handling oneself in situations of ambiguity, challenge, stress and conflict would seem to concur with Barnett’s (2004) emphasis on ontological change.

In summary, the concept of generic skills in accounting in Australia is well founded on theory and empirical research. In this regard it is significantly more advanced than most disciplines as reviewed in the higher education literature. The credit is due to the vision and foresight of the professional accounting bodies in Australia and New Zealand and the substantial contribution of Profession Birkett to the whole undertaking. However, there is a shortcoming in the enterprise in that there was no guidance on the teaching and learning of generic skills except the mandate from the professional bodies that requires all accredited tertiary programs to include the list of generic skills areas in the core curriculum (ASCPA and ICAA, 1977). This approach clearly discords with the theories on generic skills pedagogy found in the literature.

**4. Topography of the Literature**

The topography of the literature is presented by relating and consolidating the features that have emerged from the review and analysis of studies in the literature. A fundamental characteristic of generic skills that has been identified in a number of studies is that generic skills in higher education are specific to the discipline’s knowledge and context. The specificity and complexness have made generic skills in higher education difficult to conceptualise and also presented a challenge to provide a clear and universal definition in the literature. The same reason could also explain why there are fewer theoretical and conceptual studies on the nature of generic skills relative to studies that report curriculum development and initiatives. Consequently, most of the curriculum design studies can be considered weak as they do not have a theory underpinning the intervention.
The comprehensive study on the theory and practice of generic skills in the accounting profession is an exception and is certainly a feature in the topography. It is noted that the study is published by the accounting professional organizations and not in the higher education literature, partly because there is no education component in the study. There could be similar studies conducted in other professions but are also not published in the higher education literature. However, the studies reviewed here have not made reference to the existence of any such studies.

Although the number of studies on the concept of generic skills may be lacking, by contrast, there are a number of philosophic and theoretical studies in recent years that have provided intellectual insights and developed principles on the teaching and learning of generic skills higher education. One of the messages that has come consistently from these studies is that curriculum designs that focus on a list of skills is misguided and inappropriate for skills development, instead the focus should be on the learner.

These studies have also discussed the connection between generic skills development in education and its application in professional work and practice. Two related points have been made in the literature. The first is that after formal education students enter the profession and a future that is largely unknown (not just unknown to the student, but unknown in nature due to the rapid changes and complexity or ‘supercomplexity’ of the world). The second is that graduates will encounter situations in professional practice that vary from the ones that they have learnt in university. There are two types of variation that will confront students, extra-situational variation (variation of situations) and intra-situational variation (variation within situations). Under these circumstances, the implication for education is thus to groom graduates to have the capability to discern the critical aspects of situations, to make judgements regarding the situations (knowledge capability), to decide on the appropriate set of skills, and then to act in these situations to perform confidently and competently.

The experience of students has been emphasised both theoretically and empirically in a number of studies as a key factor to the development of knowledge and skills that commensurate with proficient professional practice and lifelong learning. Enriched learning experience, more comprehensive and intrinsic conceptions of learning, and the engagement in more advanced generic skills in the learning process have been found to be related. It has also been suggested that engaging students in monitoring their own progress in the skills learning will enrich their learning experience and make them more aware of self and develop confidence. It has also been shown empirically that the meaning or conception of work for workers is derived from their experience, and both experience and conception are key factors for improved competence and optimal performance in a task. From a teaching point of view, exploring student learning experiences and gaining a better understanding of their conceptions of learning could guide curriculum designs that will promote broader conceptions of and deeper approaches to learning.

In sum, the key features of the literature are 1) the discipline-dependent nature of generic skills; 2) the overall weakness of the conception of generic skills; 3) lack of substantial contributions made to teaching and learning generic skills; 5) pedagogy to emphasize developing students and not focus on teaching items of skills; 6) preparing students to cope with situations in the future; and 7) pay special attention to student experiences.
experiences for it is a key factor to both quality learning and competent practice. In this study, the features have been related and consolidated in a topography representing an abundance of resources in trans-disciplinary research.

Theories and principles on generic skills pedagogy can be obtained from the topography to guide curriculum designs and development in accounting programs. For research, the topography reveals a number of areas for future studies. An obvious area of inquiry is the experiences and conceptions of students in learning generic skills in accounting. Generic skills teaching and learning is new to accounting teachers too. Exploring teachers’ conceptions and their teaching experiences will provide insight for any needed challenge of change to their conceptions. It is also apparent in the literature that the generic skills enterprise has generated a lot of related activities and processes in teaching, learning and practice. A systematic analysis of the processes and experiences in these contexts to develop theories grounded in the data that explain the centrality of the processes will make a worthwhile contribution to the literature.
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