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Tax Knowledge for Undergraduate Accounting Majors: Conceptual v. Technical

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Abstract

With the call in recent years for a change in accounting education to redirect the focus from being too technically oriented to more conceptually oriented and more skills based, this study examined the content coverage of first tax courses in New Zealand.

The survey results show that both educators and practitioners considered a higher level of conceptual understanding than technical proficiency is required in most taxation topics canvassed. A wide range of topics was covered but not to the extent that tax educators would like or the practitioners expected them to.

INTRODUCTION

Since the mid-1980s, numerous reports and articles concerning the inadequacies of the traditional accounting curriculum have been published. A recurring theme in these publications is that a curriculum which is too technically focused does not adequately prepare students to cope with the changing business environment and the evolving needs of the accounting profession. In addition, accounting graduates need to be familiar with and skilled in using modern technologies, and to be excellent communicators, problem solvers and critical thinkers in this challenging world (Allen, 1999/2000).

More recently, the International Federation of Accountants (IFAC) further stressed that an accounting program should prepare students to become professional accountants rather than accountants. In their view, it is imperative that,

> the content of the program create a base upon which continued learning can be built. The development of both an understanding of underlying concepts and principles and of the ability to apply and adapt them in a variety of situations is essential to life long learning. A focus on memorization of rules and regulations and on the mere accumulation of knowledge is not the goal of learning to learn (1994, p.4).

This 'learning to learn' approach applies to taxation in the same way as to any other accounting subject. The introductory tax course has long been a compulsory element in accounting degrees and programmes in most tertiary institutions in New Zealand (NZ). Prior literature on tax education (see Rubin, 1989; Rhoades-Catanach, 2000)

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indicates that there is wide consensus that even if accounting majors do not wish to become tax specialists, they still need a certain amount of tax knowledge to perform effectively as auditors, business consultants, and controllers or in any other roles. In fact, the 'learning to learn' approach in tax education appears even more compelling when one considers the continuously changing nature of tax law.

In the United States, the debate over the appropriateness of the tax curriculum started as early as the 1960s and numerous surveys (see Gray, 1965; Schwartz and Stout, 1987; Sage and Sage, 1993) were conducted to ascertain the tax course content. The findings generally revealed that the basic concepts of income, business deductions and property transactions were taught within the context of their effect on individuals. As a result, tax courses offered in undergraduate programs were criticised for being too limited in their exposure to the broad range of tax issues to provide an appropriate foundation. In addition, the heavy emphasis on the technical aspects of the subject was considered inadequate to meet the needs of a dynamic and changing profession. Since only a small minority of accounting majors pursues a career in taxation, students need to be exposed to business tax issues, tax planning and web based tax research tools in the introductory taxation course. In 1996, the American Institute of Certified Public Accountants (AICPA) published a tax curriculum model which specifies the content appropriate for the first tax course and provides a suggested time allocation for each topic. The model emphasises a breadth of topics rather than depth of coverage, so that students are exposed to many tax issues that enter into various aspects of businesses.

In contrast to the debate and research on the tax curriculum in the US, little has been written about the tax curriculum in NZ. Although in the past, some studies were carried out in the accounting curriculum for accounting undergraduates, few were in the area of taxation even though taxation has long been taught either as a separate subject or as a component of other subjects. The Institute of Chartered Accountants of NZ (ICANZ) has specified a set of learning outcomes for the compulsory taxation element, but they are guidelines only and are rather general.[1] This allows the ICANZ approved tertiary educational institutions (ATEIs) the flexibility to develop their own tax curricula and use of appropriate teaching methods. The compulsory tax courses offered in different ATEIs may therefore vary in their coverage of tax issues, some in greater depth or breadth than others. The learning outcomes in terms of acquiring technical and non-technical skills may also differ between institutions. Consequently, the content of the tax program at a particular ATEI will largely depend on the tax educators' perception of the level of conceptual knowledge and technical skills required.

With the call in recent years for the focus in accounting education to be redirected from being too technically oriented to being more conceptually oriented and skills based, we considered it appropriate to examine the content coverage of the first tax course by surveying the views of educators and practitioners. Our study ascertains the level of conceptual knowledge and technical ability required of the various tax topics

[1] The learning outcomes are: identify the various taxes and tax bases applicable in NZ; distinguish assessable from non-assessable income and deductible from non-deductible expenditure including an awareness of timing issues; determine taxation obligations relating to individuals, partnerships, trusts and companies, including company taxation liabilities with reference to dividend payments and imputation credits; demonstrate an awareness of the potential tax implication for a NZ entity operating in the global environment; demonstrate an awareness of tax as an instrument of fiscal policy.

in the compulsory tax course typically taken by students in an accounting degree programme. The first course in taxation merits special attention because for many students it will be the only tax course they will take during their undergraduate years. For those who intend to specialise in taxation, the content of the first tax course is also important because it establishes the foundation for future learning in this discipline. Further, as alluded to by O'Neil, Weber and Harris, (1999, p.600), 'for tax education to be relevant to the practice of accounting, the content must be relevant to accounting practice.' The views of practitioners and educators are therefore equally valuable. The findings of this study will provide some insights into the level of competency in tax knowledge required of an accounting graduate as perceived by educators and practitioners. The findings may also provide an indication as to whether there is any discrepancy between 'what should be taught' as viewed by practitioners, and 'what is taught' by tax educators.

The paper is organised in the following manner. The first section reviews the debate on tax education in countries such as the USA, the UK, Australia and NZ. The research method is then described followed by an analysis and discussion of the results. The last two sections present the conclusions, the limitations of the study and suggestions for future research, respectively.

LITERATURE REVIEW

USA

In the USA, tax education is recognised as a vital element of business and accounting education and, compared to most other countries, there is much more debate and research in the area of tax education. For instance, in the 1960s, Gray (1965) surveyed those institutions accredited by the American Association of Collegiate Schools of Business (AACSB) to ascertain the content of the first tax course. His results indicated that tax educators rank an understanding of the current provision of the tax law as most important, followed by history and philosophy of the income tax, tax ethics, economic aspects, researching tax problems and preparation of tax returns (p. 205). He also found that the first course in taxation is typically focused on personal income tax, but a more conceptual than technical approach was generally adopted. However, he argued that even if students were exposed to the conceptual `why' of taxation, they would still receive only a partial or fragmented view of taxes impacting on business issues, if this was the only tax course they took. Following this study, the Committee on Income Tax Instruction of the American Accounting Association (AAA) issued a statement in 1969 emphasising the need for accounting and business students to not only understand the concepts of taxable income but also to appreciate the impact of taxes on business decision-making. Still disappointed that the tax curriculum had remained the same, years after Gray's research and the AAA's suggestions, Sommerfield (1975) and Skadden (1975, p.171) called for a re-examination of tax courses so that an appropriate tax education could be provided for all accounting students irrespective of whether they become future auditors, managers, or professional tax advisors.

Further studies conducted in the 1980s and 1990s (such as Schwartz and Stout, 1987; Sage and Sage, 1993) found that educators still tend to spend more time on individual taxation and much less time discussing corporate taxation than practitioners would prefer. Again, critics cautioned that a negative result of such a narrow focused curriculum is that throughout their academic careers, accounting graduates are led to

believe that taxation is a distinct, non related function of financial accounting and other business disciplines. Consequently, students who do not take a second tax course may be unable to relate the broad concepts to other entities. Aware of these criticisms, the AICPA tax division task force developed the Model Tax Curriculum (MTC) for undergraduate and graduate courses. This model places greater emphasis on business taxes and tax planning. The curriculum introduces students to a broad range of tax concepts, types of taxpayers, and the role of taxation in business decision-making. The model further recommends that more emphasis be placed on the differences between financial and tax accounting and that tax research, planning and ethics be integrated into and emphasised throughout the program. The breadth of topics encompassed in the MTC requires that tax teachers limit the depth of coverage. However, instructors who traditionally covered all the rules and exceptions were left to decide what to eliminate to make room for the expansion of topics.

Since the MTC was developed and published in 1996, a survey of practitioners has been undertaken to assess their views on the model. The results indicate that practitioners strongly agree with the importance of both technical and non-technical skills. They believe that an understanding of both individual and corporate tax is vital. Further, the capability of using electronic tax research tools is seen by many as critical in a world of increasing electronic knowledge management (Kopplin, Porter, Sheriff, & Totten, 1999, p. 806). Practitioners further perceive that the best time for undergraduates to take their first tax course is during their junior year, as they need to have a fundamental understanding of how income tax influences business decisions and it would also provide an opportunity for interested students to pursue additional tax courses.

To determine the impact of the model curriculum, another survey was carried out by O'Neil et al., (1999) of tax teachers who taught at the AACBS-accredited institutions. Disappointingly, their results indicate that the first tax course is still dominated by technical information, focused on individual taxpayers (p.597) and taught using the traditional lecture supplemented by problem-solving. Despite such disappointing findings, there was some evidence that the model did have some impact on those who recently revised their tax course.

United Kingdom

Although the accounting curricula have been subject to debate and change over the years, little research is conducted on the teaching of taxation in the UK (Craner and Lymer, 1999). In particular, little was known about the course objectives and content, staffing, and teaching and assessment methods. Based on Craner and Lymers' review, a study conducted by the Institute of Chartered Accountants in England and Wales (ICAEW) in 1995 indicated that there were major differences in the taxation course content offered by various universities. The dearth of prior research on tax education prompted them to conduct a survey of academics `to investigate the characteristics of taxation courses offered as part of the UK undergraduate accounting degrees in order to establish the existence or otherwise of common themes, structures and approaches' (Craner and Lymer, 1999, p. 128). Their results revealed that most tax courses, unlike those in the US, were found to be optional rather than compulsory. In terms of course objectives, the ability to carry out detailed computations was considered as most important in a tax course. Other than this objective, their results indicate that there were no consistently held views as to what the objectives of a tax course should be (Craner and Lymer, 1999, p.142). There was also a strong bias in content towards

income tax and corporation tax and much less emphasis on indirect taxes, local taxes and social security taxes. This limited focus, as perceived by them, could be due partly to the absence of any constraint on course design resulting from the requirements of professional bodies.

Miller and Woods (2000) contributed to the UK tax education literature by examining whether there is an expectation gap between the taxation knowledge acquired by students at university and the tax knowledge which employers expect of them (p.223). Interestingly, their results showed that views differed depending on whether the educators are from 'old' (pre-1992) or 'new' (post-1992) universities (many were previously polytechnics). All groups ranked 'an appreciation of the general scheme of the UK tax' as the most important learning outcome. However, educators in the new universities ranked the ability to perform tax computations second in contrast to those educators from the old universities who ranked them eighth. It appears that such a focus is inevitable as these new tertiary institutions are partially influenced by the demands of the professional bodies' examinations. Overall, the results indicate that differences exist between the old and new universities and also between employers' current expectations of graduates' tax abilities and employers' preferences for tax abilities (p. 223).

Australasia

As in the UK, there has been little research carried out on tax education in Australia and New Zealand. In 1980, Flanagan and Juchau (1982) conducted a mail survey to ascertain the core of the curriculum for accounting undergraduates in Australia. The survey revealed overall support for inclusion of tax topics as one of the core elements; however, they generally received a low importance ranking from educators and practitioners (1982). In the 1990s, Abdolmohammadi, Novin and Christopher (1997) did a comparative study of education in Australia and the US and found that the emphasis placed on taxation in the accounting curriculum in both countries accounts for only about 9% of the total curriculum.

On accounting education in general, a review of the accounting discipline in higher education conducted in 1990 in Australia disclosed that undergraduate programs fail to meet their educational objectives. Accounting courses, according to the review, need to be more conceptual and less procedural, and more focused on innovative teaching. Hasseldine and Neale (1991) supported this proposition as their survey of Australia and NZ tertiary institutions indicated that tax education in Australasia tends to place greater emphasis on procedural aspects and tax planning. They criticised the lack of use of an interdisciplinary approach to conceptual tax teaching, which is seen as more appropriate for the first course in taxation.

In summary, there has been little comparative research carried out on the tax curriculum in New Zealand particularly when compared to the US. The present study attempts to fill this gap in knowledge by examining the content coverage of first tax courses taken by undergraduate accounting majors.

RESEARCH METHODOLOGY

Sample

The sample for this study was drawn from two main groups: accounting practitioners and accounting educators. Practitioners' views were considered appropriate as they generally have a good idea of what level of knowledge, both conceptual and technical,

an entry level accounting graduate who intends to join a public accounting firm will need to possess. A random sample of 200 practitioners in public practice was therefore obtained from ICANZ. The sample was selected from practitioners in senior positions because they would have more years of experience in working with accounting graduates and would therefore be in a good position to ascertain the level of tax knowledge required of an entry level accountant.

Accounting teachers from ATEIs were segregated into two groups: one group which taught taxation (termed as tax educators) and the other group who did not teach taxation (termed as non-tax educators). A random sample of 100 non-tax educators and all 27 tax educators was surveyed. Non-tax educators were included in the sample as they generally have some concerns as to what forms part of an accounting curriculum, and the skills and knowledge that accounting students need to acquire from their tertiary education. They were therefore randomly selected from the Wiley Directory of Accounting 2001-2002. This list was updated, as far as possible, by checking with the list of teaching staff provided on each of the ATEI's website. Tax educators were initially identified as those who indicated in the Wiley Directory that taxation was their primary teaching responsibility. This list was also updated, as far as possible, through contacts with academics from other ATEIs. A total of 27 educators who taught tax courses was identified and surveyed.

Questionnaire design

As a starting point, the tax course learning outcomes developed by the ICANZ was obtained. The guidelines are very general indeed as only an 'awareness of taxation compliance within statutory and professional requirement' is expected in the compulsory taxation course. The websites of the ATEIs were then searched to see whether any detail course syllabi were provided. Four syllabi were obtained, and together with the ICANZ guidelines, a list of course content was drawn up.

As prior literature suggests that both conceptual knowledge and technical ability are important, although at varying degrees, respondents were asked two separate questions. In the first question, respondents were asked to indicate for each of the identified topics (30 in total), the level of *conceptual knowledge* (1= *none* to 5 = *very high*) an accounting graduate would need before entering an accounting career in public practice, regardless of what their eventual specialisation may be. In the second question, they were asked to indicate for each topic (28 in total), the level of *technical ability* (1 = *none* to 5 = *very high*) an accounting graduate would need before entering an accounting career in public practice regardless of their ultimate specialisation. The majority (but not all) of the topics in the two questions were similar.[2] Respondents were also given the option, in both questions, of suggesting other topics.[3]

The terms, *conceptual knowledge* and *technical ability* were adapted from the Flanagan and Juchau (1982) questionnaire. Respondents were informed that *conceptual knowledge* referred to 'the mental processes ranging from simple recall or

[2] This is because some topics such as history of taxation, and principles and purpose of taxation have no 'technical ability' relevance and topics that involve computations have a 'technical ability' focus rather than conceptual.'

[3] An analyses of the responses showed that majority did not indicate other topics.

awareness to creative thinking or evaluation.' *Technical ability* was referred as the 'skill in applying knowledge of tax law to specific taxation problems.'

Background information such as academic qualifications, professional affiliations, employment, and years of experience, was also obtained from respondents.

Two additional questions were included in the questionnaire for tax educators. Respondents who were course controllers or course co-ordinators of the compulsory tax courses were asked to indicate the level of conceptual knowledge and technical ability that was actually required in the tax course they taught. The purpose of this question was to find out whether there were any gaps between what practitioners perceived should be the required level of knowledge and what was actually covered in the tax curriculum.

The questionnaire was initially pilot tested and was shortened in response to comments that the length of the original questionnaire may deter some respondents from completing it. The final questionnaires, with a cover letter explaining the purpose of the survey, were then mailed out, followed by a reminder three weeks later.

Out of 200 questionnaires sent to practitioners, 93 were completed and 7 were returned undelivered, giving a usable response rate of 48%. For educators, 38 questionnaires were completed and returned, and 8 returned undelivered, giving a usable response rate of 32%. Out of the total number of educators' responses, 11 were from tax educators and 27 were from non tax educators.

RESULTS

Background

Table 1 shows that the practitioners' primary areas of expertise were not mainly concentrated in one particular area, such as taxation. A large number also specialised in other areas like financial accounting, auditing, business planning and management accounting. Since respondents' expertise is not mainly concentrated in taxation, the results obtained should not be biased by this one particular group.

In terms of work experience, there was also a good spread of practitioners, although the majority (68%) had been in practice for more than 5 years. These experienced respondents were therefore well positioned to identify the level of knowledge and ability required. The majority (90%) of the practitioners were partners in a firm rather than sole proprietors (10%). Most respondents (67%) had 3 partners in the firm and only 1 respondent was from a big firm.

On the basis of this spread of profiles and backgrounds, the findings of this study should be representative of the views of practitioners as to the level of tax knowledge and ability required of accounting graduates, in the current business environment.

Table 2 shows that a majority (89%) of the educators worked full time at a tertiary institution. Most educators (79%) also had more than 5 years of teaching experience. About 65% of educators were members of the ICANZ and about 86% hold a postgraduate qualification. For those who were not tax educators, their primary teaching areas were in financial accounting (54%), management accounting (46%), accounting information systems (12%) and auditing (12%). Twelve (46%) of the non-tax educators indicated that the paper they taught covered some elements of taxation.

TABLE 1: BACKGROUND INFORMATION – PRACTITIONERS

	No.	%
Areas of expertise*		
Financial accounting	61	66
Taxation	42	46
Auditing	15	16
Business planning	11	12
Managerial accounting	8	9
No of years in practice**		
5 or less	29	32
6-10	21	24
>10	39	44
	89	100
No of owners**		
Sole practitioners	16	18
Partners:		
not > 2	9	10
3	59	67
4 – 9	4	4
70	1	1
	89	100

** some respondents indicated more than one primary area of expertise*

*** 4 missing data*

TABLE 2: BACKGROUND INFORMATION – EDUCATORS

	No.	%
Employment*		
Full time at a tertiary institution	33	89
Part-time at a tertiary institution	2	5
Also working in private sector	1	3
Also working in public sector	1	3
No of years teaching**		
Not > 5	7	21
6 - 10	9	26
> 10	18	53
	34	100

** some respondents indicate more than one place of work*

*** 3 missing daat*

Out of the 11 tax educators, 10 (91%) indicated that only one tax course was compulsory in their tertiary institutions. These findings indicate that it is important that accounting students are exposed to the many issues in taxation that impact on businesses as this may be the only tax course they encounter in their undergraduate years.

Conceptual knowledge and technical ability

Table 3 shows the mean scores for the level of conceptual knowledge respondents think an accounting graduate would need before entering an accounting career in public practice. The mean scores for both practitioners and educators indicate that a higher level of conceptual knowledge on deductions, income, GST, depreciation, principles of taxation, tax losses and tax bases is required as compared to other topics. This is not surprising, considering that these topics cover the most fundamental or basic areas of taxation and that an understanding of GST is essential to many aspects of accounting practice. Farm taxation, gift duty and history of taxation had the lowest mean scores, indicating that both groups considered awareness only of these topics is required in the first tax course.

As compared to practitioners, the educators generally perceived that a higher level of conceptual knowledge is required of most topics (apart from trusts, property transactions, partnerships, farm taxation, gift duty, and history of taxation). Further statistical *t* tests, however, revealed that, out of the 30 topics, there was one significant difference ($p<0.01$) between the practitioners' and educators' perception, and that was for 'tax planning, avoidance and evasion.' This result indicates that the educators considered that graduates need to have a higher level of conceptual knowledge in this topic. Practitioners perhaps did not consider conceptual knowledge of tax planning, avoidance and evasion to be very important for new graduates because not all of them will ultimately specialise in taxation. Educators, on the other hand, usually take a broader view as their role is to prepare students for a range of possible career options.[4] A number of high-profile tax avoidance and fraud cases over recent years coupled with the call for integrating ethics into the accounting curriculum, have probably also contributed to the current interest in avoidance and evasion law. From the educator's perspective, this topic could be regarded as an interesting and challenging area of teaching and learning! Further statistical tests showed that there were no significant differences in views between the non-tax educators and tax educators.

Table 3 also shows the mean scores of the level of technical ability required of an accounting graduate, as perceived by practitioners and educators. For both groups, the following topics achieved the highest mean scores: deductions, income, GST, depreciation, income tax computations for business entities and individuals. Again, this consensus seems reasonable as these are fundamental areas of taxation and GST is an important aspect of accounting practice. In contrast, for both groups, structure of tax legislation, foreign source income, farm taxation, tax investigation, dispute resolution and gift duty had the lowest mean scores.

Overall, for most topics (other than trusts, preparation of computer returns, and farm taxation), educators perceived that a higher level of technical ability is required of an

[4] Further, as indicated by a reviewer of this paper, educators may view that it is important for business advisors/accountants to be aware of the interaction of disciplines and the impact or tax/ethical implications advice can have.

accounting graduate as compared to practitioners. However, the views were not significantly different (p<0.01). Statistical tests also showed that there were no significant differences in views between non-tax and tax educators.[5]

TABLE 3: CONCEPTUAL KNOWLEDGE AND TECHNICAL ABILITY REQUIRED - MEAN SCORES

Topics	Conceptual Knowledge *Mean Scores*		Technical Ability *Mean Scores*	
	All Educators	Practitioners	All Educators	Practitioners
Deductions	4.11	4.08	4.03	3.90
Income	4.13	4.05	4.00	3.86
Goods and services tax	3.95	3.95	4.03	3.86
Depreciation	4.03	3.81	3.82	3.75
Principles of taxation	4.05	3.65	n/a	n/a
Tax losses	3.82	3.59	3.74	3.47
Tax bases	3.92	3.54	n/a	n/a
Accounting periods & methods	3.65	3.53	3.38	3.36
Imputation system	3.68	3.52	3.76	3.32
Structure of direct & indirect tax	3.82	3.51	n/a	n/a
Fringe benefit tax	3.79	3.48	3.66	3.41
Interrelationship between fin & tax a/c	3.92	3.48	3.57	3.34
Assessments, payments & appeals	3.61	3.42	3.24	2.99
Penalties structure	3.58	3.42	3.13	2.99
Trading stock	3.76	3.40	3.68	3.30
Trusts	3.32	3.39	3.18	3.27
Tax planning, avoidance & evasion *	4.05	3.38	3.50	2.91
Structure of tax legislation	3.65	3.37	2.95	2.90
Property transactions	3.05	3.35	3.00	2.98
Corporate distributions	3.50	3.34	3.50	3.04
Partnerships	3.24	3.33	3.30	3.17
Qualifying companies	3.53	3.28	3.37	3.12
Corporate tax losses	3.50	3.25	3.50	2.95
Purpose of taxation	3.52	3.04	n/a	n/a
Residency	3.19	3.04	3.24	2.92
Tax investigation, dispute resolution	3.35	2.90	2.97	2.57
Foreign source income	3.18	2.89	2.89	2.85
Farm taxation	2.66	2.75	2.55	2.82
Gift duty	2.69	2.71	2.65	2.48
History of taxation	2.21	2.27	n/a	n/a
Inc tax computations for bus entities	n/a	n/a	3.97	3.67
Inc tax computations for individuals	n/a	n/a	3.82	3.57
Preparation of computer tax returns	n/a	n/a	3.08	3.22

1= none 5= very high
n/a indicates not applicable, as some questions were not asked either in the conceptual part or the technical ability part of the questionnaire.
** significant at p<0.01*

[5] An analysis of variance (ANOVA) was carried out to examine the effects of size of organisation, number of year's experience and area of expertise on practitioners' perceptions of conceptual knowledge and technical ability needed. Number of year's experience had no effect on their perceptions whereas size of organisation and area of expertise have an effect on only 2 to 3 topics respectively.

Conceptual v Technical

By comparing the mean scores of the level of conceptual knowledge required and the level of technical ability required for each topic, it can be seen that practitioners and educators generally perceived that a higher level of conceptual knowledge is required than technical ability. For all topics, other than farm taxation, practitioners considered that a higher level of conceptual knowledge than technical ability is required of graduates. Similarly, for all topics other than GST, imputation system, partnerships and residency, educators rated conceptual knowledge higher than technical ability.

Tax educators' course requirements and practitioners' expectations

To ascertain the level of knowledge and ability that was covered in the compulsory tax courses, tax educators who were course coordinators or controllers were asked to respond to some additional questions. Out of the 11 tax educators, only 6 were the course coordinator or controller of a compulsory tax course.

Table 4 compares the expectations of practitioners with respect to conceptual knowledge and technical ability with what was actually covered by educators in the tax courses. For both groups, the three topics that achieved the highest mean scores were deductions, income and GST. These topics were covered by tax educators to about the same level of conceptual knowledge expected by practitioners.

However, the conceptual knowledge required in 20 out of the 30 topics was lower than the expectations of practitioners. The widest expectation gap in conceptual knowledge appeared in three topics: accounting periods and methods, interrelationship between financial and tax accounting and trusts. The actual coverage of knowledge in the tax course was also lower when compared to the educators' own perceptions of the required level of knowledge for most topics. Perhaps time is the main constraint for covering topics to the level tax educators would like to. No statistical tests were carried out for significance as the number of responses from tax educators was too small.

The results further show that the technical ability required by tax educators in 25 out of the 28 topics was lower than the expectations of practitioners. In particular, practitioners' expectations of a reasonably high level of technical skills required in income tax computations, for individuals, accounting periods and methods, interrelationship between financial and tax accounting, assessments, payments and appeals, trusts, penalties structure, and trading stock were not matched with actual coverage in the tax course. On the lower end of the mean scores, gift duty and farm taxation were also covered to a much lesser degree than the practitioners expected. Tax educators' actual coverage for each topic was also found to be lower that their own perceptions of the required level of technical ability. This indicates that the main reason for the expectation gap could again be due to the limited time available to cover the technical aspects of such topics further.

Further analysis of the mean scores for conceptual knowledge and technical ability shows that for all topics, tax educators required a higher level of conceptual knowledge than technical ability in the tax course (see Table 4). As practitioners and educators have in the past tended to place heavy emphasis on the technical or procedural aspects of taxation (Hasseldine and Neale, 1991), it is reassuring to find from this study that perceptions and attitudes have changed. The results also differ from some studies conducted overseas. In the USA for instance, the first tax course was found to be dominated by technical information and that the tax compliance

topics were mainly relevant to individual taxpayers only (O' Neil, Weber and Harris, 1999). In the UK, Craner and Lymer (1999) found that many tax courses were highly focused on student's ability to carry out detailed computations.

TABLE 4: CONCEPTUAL KNOWLEDGE AND TECHNICAL SKILLS: TAX EDUCATORS' COVERAGE AND PRACTITIONERS' EXPECTATIONS - MEAN SCORES

	Conceptual Knowledge *Mean Scores*		**Technical Ability** *Mean Scores*	
	Tax Educators	**Practitioners**	**Tax Educators**	**Practitioners**
Goods and services tax	4.17	3.95	3.33	3.86
Income	4.17	4.05	3.60	3.86
Deductions	4.00	4.08	3.60	3.90
Principles of taxation	3.83	3.65	n/a	n/a
Residency	3.67	3.04	3.50	2.92
Corporate distributions	3.50	3.34	3.00	3.04
Corporate tax losses	3.50	3.25	3.00	2.95
Imputation system	3.50	3.53	3.00	3.32
Partnerships	3.50	3.33	2.33	3.17
Qualifying companies	3.50	3.28	2.67	3.12
Tax bases	3.50	3.52	n/a	n/a
Tax losses	3.50	3.59	3.12	3.47
Depreciation	3.33	3.81	2.83	3.75
Fringe benefit tax	3.33	3.48	2.69	3.41
Purpose of taxation	3.33	3.04	n/a	n/a
Structure of tax legislation	3.33	3.37	2.83	2.90
Tax planning, avoidance & evasion	3.33	3.38	3.00	2.91
Penalties structure	2.83	3.42	2.00	2.99
Property transactions	2.83	3.35	2.33	2.98
Structure of direct & indirect tax	2.83	3.51	n/a	n/a
Trading stock	2.83	3.40	2.17	3.30
Accounting periods & methods	2.67	3.54	2.33	3.36
Foreign source income	2.67	2.89	2.33	2.85
Tax investigation, dispute resolution	2.67	2.90	2.00	2.57
Assessments, payments & appeals	2.33	3.42	1.83	2.99
Interrelationship between fin & tax a/c	2.33	3.48	1.67	3.34
Trusts	2.33	3.39	2.17	3.27
History of taxation	2.00	2.27	n/a	n/a
Gift duty	1.67	2.71	1.33	2.48
Farm taxation	1.50	2.75	1.17	2.82
Income tax computations for business entities	n/a	n/a	3.17	3.68
Income tax computations for individuals	n/a	n/a	2.33	3.57
Preparation of computer tax returns	n/a	n/a	1.50	3.22

1= none 5= very high
n/a indicates not applicable, as some questions were not asked either in the conceptual part or the technical ability part of the questionnaire.

Tax courses and pedagogy

The teaching methods used to impart tax knowledge are as important as the course content. In particular, because skills enable graduates to learn to critique and use knowledge, skills development should be part of the process of imparting knowledge. To ascertain the instructional methods used, tax educators were asked further questions relating to teaching and assessment methods, and course revision.

TABLE 5: TAX COURSE AND TEACHING METHODS

	No.	%
Teaching methods		
Lectures	5	45
Required reading eg textbooks	6	54
Case study analysis and discussion	4	36
Role-playing in decision situations	1	9
Group research projects	3	27
Use of technology	1	9
Workshops	2	18
Self study materials	2	18
Tutorials	5	45
Computer based learning	0	0
Assessment methods		
Examinations	6	54
Tests	3	27
Assignments	6	54
Research projects	3	27
Oral presentations	2	18
Class participation	2	18
Content last revised		
This year	4	36
Last year	2	18
Primary motivation for revision		
ICANZ accreditation requirements	2	18
Instructor motivated	2	18
Increasing complexity of tax legislation	1	9
Changes in tax legislation	4	36
External/independent reviews	2	18
Other	1	9

As shown in Table 5, tax educators used a variety of teaching methods in their tax courses. All used at least 3 of the teaching methods indicated. However, the most common teaching methods used were lectures, required readings and tutorials. Some educators also used case studies to enhance students' analytical skills. Overall, there appeared to be a combination of active and passive learning methods being used. Three respondents indicated that group work was required. Surprisingly, the use of technology was hardly exploited. Computer based learning was also not used by any of the respondents. Perhaps respondents had different interpretations of the term

technology or computer based learning here. Overall it appeared that technology is hardly relied on as a teaching aid in the compulsory tax course. This result is consistent with the findings of Craner and Lymer (1999) in the UK but is very different from a survey conducted by O'Neil et al. (1999) in the US where a majority (55%) indicated the use of electronic tax research databases in their first tax course.

Tax educators also used a combination of assessment methods. Examinations and assignments were the most common methods used. Four respondents indicated that they revised their content this year and two indicated that they revised their content last year. Not surprisingly, the primary motivation for most tax educators to revise the course was changes in tax legislation. Some indicated other reasons such as the ICANZ accreditation requirements. Some are self motivated to change and some indicated that the external/independent reviews prompted the revision.

CONCLUSION

With only a general outline provided by the ICANZ of the learning outcomes for the taxation element, the degree of emphasis required both at the conceptual and technical level depends on the perceptions of the educators. For the program to remain relevant, the content and focus must also be geared toward the needs of students for careers in public accounting and other sectors. This critical objective, as alluded to by Novin and Fetyko (1997), will be achieved only if educators have a strong understanding of the needs of practitioners and other organisations.

This study however found that there were no significant differences in the views between educators and practitioners with respect to the level of conceptual knowledge (other than the tax planning topic) and technical ability required of any of the topics canvassed. This could be due to the fact that academics in NZ generally have closer interaction with their profession as compared to, for instance, academics in the US (Malthus and Laswad, 2002).

Further, both educators and practitioners indicated a higher level of conceptual understanding of most of the taxation topics, as compared to technical proficiency, is required. Students were also exposed to a wide range of topics in the first taxation course. This finding is in accord with the call for accounting education to be more conceptually based than technically or rule-based. However, they are in sharp contrast to the tax curriculum in the US and the UK which tend to have a more narrow focus and a heavier emphasis on performing tax computations.

The findings further indicate that, although tax educators exposed their students to a breadth of topics, they were not covered to the extent that they or practitioners would expect them to. In particular, exposure to topics such as the interrelationship between financial and tax accounting appeared limited in comparison to practitioners' expectations. A good understanding of the relationship between financial and tax accounting is crucial for accounting students. This topic is also emphasised in the AICPA tax curriculum model. Tax educators, therefore, may need to reconsider the emphasis placed on this area and other related topics such as trading stock, accounting periods and methods, to enhance students' understanding of their interrelationship with financial accounting. Tax educators also tend to place less time on exposing students to computerised tax returns. With time constrains, perhaps they perceived that this skill can be learned in the workplace.

Lastly, those tax educators who placed great emphasis on students' development of various generic skills should be commended. The use of case studies, group learning, problem solving, written assignments and oral presentations by some is good evidence of such development. However, technology did not appear to be well exploited by tax educators. Greater exposure to technology such as the use of electronic tax research tools, or web-based learning in the first tax course, would certainly enhance students' skills in 'learning to learn' in the field of taxation.

LIMITATIONS AND FUTURE RESEARCH

There are several limitations in this study. First, is that the results may not be representative of the general population as the number of respondents from the non tax educators was low. This could be due to their unfamiliarity with the technical tax terms used in the questionnaire and could have deterred some from responding. Future research may perhaps use less technical terms or focus on the expected learning outcomes rather than identifying the level of knowledge and technical ability for individual taxation topics.

In addition, this study only sought the perceptions of respondents with respect to level of knowledge and ability required of accounting graduates who intended to work in public practice. As a result, the findings may not be generalisable to other private and public sectors. Further research could be conducted to ascertain whether the expectations of employers from different sectors differ. The sample could also include graduates, as they could provide invaluable feedback on the usefulness of knowledge acquired in the first tax course at tertiary institutions.

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