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ACCOUNTING EDUCATION IN AUSTRALIA AND JAPAN: A COMPARATIVE EXAMINATION

by

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ACCOUNTING EDUCATION IN AUSTRALIA AND JAPAN: A COMPARATIVE EXAMINATION

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Abstract

In recent years there has been a great concern among governments, professional bodies and educators for changes in accounting education. It seems useful for planners of such changes to consider the methods of training accountants in different countries as one country can learn from the experiences of another. In the existing literature, however, there is a dearth of comparative studies on this area of education in different countries.

This paper presents an analysis of accounting education in Australia and Japan highlighting the major differences in the two countries. The analysis reveals that accounting education in Australia places emphasis on financial accounting while the emphasis is on cost and management accounting in Japan. It also shows that being firm-specific through comprehensive in-house training the Japanese system is in a better position to produce accountants capable of adapting accounting systems to the different work situations which result from technological changes and automation.

ACCOUNTING EDUCATION IN AUSTRALIA AND JAPAN: A COMPARATIVE EXAMINATION

1. Introduction

In recent years accounting has come under strong criticism particularly in the literature in the USA. The basis of this criticism lies partly in the over-emphasis placed on short-term financial results and partly in the failure of accountants to adapt their accounting practices to the changing technology and methods of production in business enterprises operating in highly competitive environments (Kaplan, 1984; Seed, 1984; Dilts and Russell, 1985; Brimson, 1986; Lee, 1987). These criticisms can be ascribed, at least partly, to the accounting education system of the country concerned.

Consequently, in recent years there has been a great concern among governments, professional bodies and educators for changes in accounting education. For example, the Mathews Committee appointed by the Department of Employment, Education and Training in Australia for reviewing the Accounting Discipline in Higher Education has proposed several changes including a change in the course structure to provide a broad general education for accounting graduates (DEET, 1990). Sprouse (1989) surveys some of the current concerns detailing a report of the American Accounting Association which stated that five or more years of university training would be desirable for a person before embarking on an accounting career. Hilmy (1987) points out that it becomes important to integrate accounting with other business disciplines in the accounting curriculum, strengthen the liberal arts knowledge base and enlarge the cultural literacy context. Gynther (1983), stressing the importance of providing a part of the on-the-job training at the place of employment, asserts that the role of tertiary accounting education in today's environment should not attempt to embrace a graduate's *total* accounting education.

Whatever the changes may be, it seems useful for planners of such changes to consider the methods of training accountants in different countries, paying attention to their relevance and effectiveness. In such a process, one country can learn from the experiences of another. Therefore, there is certainly a need for studies covering various aspects of accounting education in different countries. Unfortunately, in the existing literature there is a dearth of such studies particularly in the form of comparative analyses. For example, no study has ever been done to compare how accountants are trained in Australia and Japan. The present paper is an attempt to fill this gap.

The rest of the paper is organised as follows: Sections 2 and 3 describe how accounting education is provided in Australia and Japan respectively. A comparative analysis, highlighting the major differences in the two countries is presented in Section 4 and conclusions are given in Section 5.

2. Accounting Education in Australia

The Australian Education System

The Australian education system is broadly divided into three levels as primary, secondary and tertiary (see Figure 1). Primary education is from Year 1 (kindergarten) to Year 6. The junior secondary level is usually from Year 7 to Year 10, and two more years of education (Years 11 and 12) are required for the senior secondary level.

At the end of Year 10, an Australian student may look for a job or proceed to further education. Some students enter the government educational institution known as TAFE (Technical and Further Education) or private technical and further education institutions for the purpose of getting further training for a job or taking a course called 'matriculation' which gives them the equivalent of Year 12. Year 12 or adult matriculation is necessary if a student wants to go on to tertiary education courses at a university or a college of advanced education (CAE).

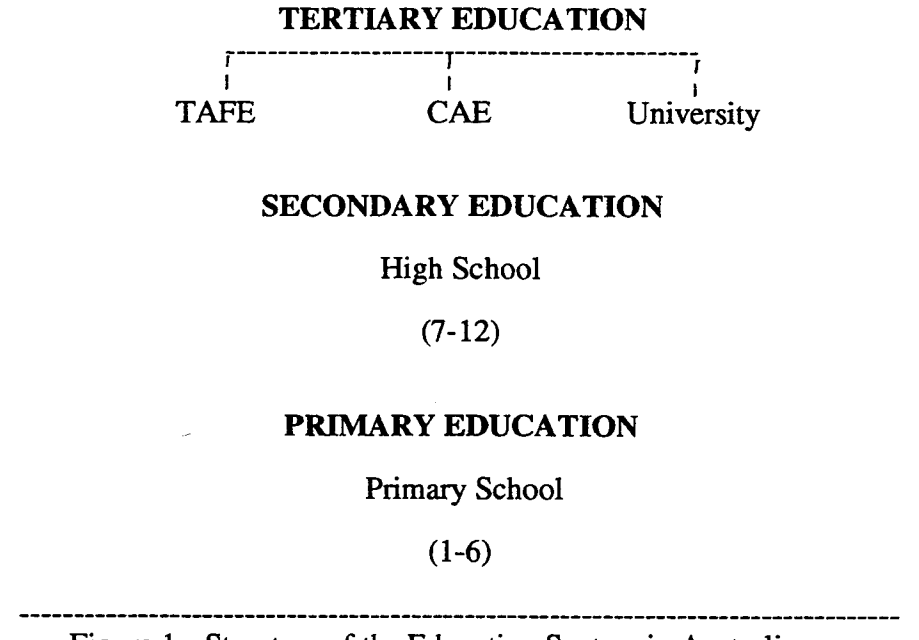

Figure 1 - Structure of the Education System in Australia
Note: Numbers in parentheses are school years (equivalent to grades).
Source: DEET, 1984

Australia's Technical and Further Education (TAFE) sector is a nationally recognised government system of vocational education and training and has become the major provider of skills required by the Australian workfore. It is the largest of the three tertiary education sectors and accounts for approximately 70 per cent of post-secondary enrolments. There are 232 major TAFE colleges in Australia and they offer a wide range of programmes at diploma and certificate levels. The duration of these programmes varies from short courses of several hours to three year full-time courses.

In 1987 there were 65 universities and CAEs providing higher education courses. At present they are being restructured into a unified national system through a process of consolidation (mergers, redesignation and upgrading). The total number of students enroled in higher education amounted to 438,297 in 1989 (DEET, 1991, p.18). Universities provide courses and conduct research in a wide range of professional and

academic disciplines. While most CAEs offer a broad range of courses, some are specialist institutions of entry to a master's degree programme by a university and vice versa.

Accounting Education by Educational Institutions

At the level of secondary education, basic accounting is taught as optional subjects under Commerce in Years 8 and 9, and under Business Studies in Years 10-12 in most secondary schools. In some states, specialist high schools offer a programme of vocational courses including accounting. At the tertiary level, TAFE colleges offer diploma and certificate courses in accounting. The most popular among them is a two-year full-time course leading to the Associate Diploma in Accounting for students with Year 12 or equivalent academic standing. The main objective of TAFE courses is to prepare students for junior accounting positions in industry, commerce and government. The responsibility of producing accountants, however, lies mainly with the universities and CAEs. Out of the total 65 universities and CAEs, 49 offered accounting courses in 1989.

In Australia there is no statutory definition of an 'accountant'. Nevertheless, for a person to gain career advancement as an accountant in a sizeable organisation in industry, commerce or government or to progress as a private practitioner, the membership of a professional accounting body is considered indispensable. There are two major professional accounting bodies: the Institute of Chartered Accountants in Australia (ICAA) and the Australian Society of Certified Practising Accountants (ASCPA).[1] Both these professional bodies specify a bachelor's degree in accounting as a minimum entry requirement for membership. However, the degree accepted for this purpose should be one obtained from an educational institution whose accounting programme is accredited by

[1] Prior to the change of name in 1990, the Australian Society of Certified and Practising Accountants (ASCPA) was known as the Australian Society of Accountants (ASA).

a professional body. Accordingly, accounting education in Australia is basically a responsibility of the country's educational institutions.

There is no one standard terminology for a bachelor's degree in accounting; for example, one institution may offer an award titled Bachelor of Commerce (Accounting), whereas another may have a Bachelor of Economics (Accounting) or a Bachelor of Business (Accounting). What ever the title, these degree programmes which are offered over a period of three years usually have a common core of accounting subjects complemented by subjects in other areas of business.

Institutions differ markedly in relation to the amount of classroom contact hours that is required of students in accounting courses. The distribution of gross reading time in terms of semester hours across different subject groups in a bachelor's degree course in accounting is shown as percentages in Table 1. It can be seen that, on average, courses which provide professional education require that approximately 40 per cent of the students' classroom time over the six semesters should be devoted to accounting, close to 17 per cent to business law and tax, 12 per cent to economics, 15 per cent to quantitative methods and computing, and 16 per cent to other subjects. This shows that for both universities and CAEs the accreditation requirement of professional accounting bodies is heavily reflected in the course structures. Furthermore, the general education component in these courses, on average, seems to be less than 16 per cent indicating a very high concentration on accounting and related subjects with the emphasis on financial accounting. In contrast it is important to note that the weight given to general education[2] in the accredited accounting programmes of American universities is as high as 45 per cent (Abdelrahman, 1988, p.49).

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[2] Subjects included under this category are from humanities, social science and natural science.

Table 1
Allocation of Curriculum Time Across Subject Groups
(47 institutions)

	Mean	Median	Minimum	Maximum
	%	%	%	%
Accounting	40.5	40.0	29.1	55.7
Business Law & Taxation	17.2	16.7	9.7	28.0
Economics	12.0	9.6	2.9	30.5
Quantitative Methods & Computing	14.8	15.0	6.3	29.2
Other	15.5	16.2	0.0	43.1

Source: DEET, 1990, Table 2.11

Undergraduate students enroled in courses which received professional recognition in accounting in relation to all students by field of study in 1989 are shown in Table 2. When compared with other professional fields such as engineering and law the number of undergraduate students pursuing accounting courses seems to be significantly high. A total of 38,110 students have been pursuing undergraduate courses in accounting in 1989, representing 8.7 per cent of the total number of undergraduates in all fields.

Table 2
All Undergraduate Students by Field of Study - 1989

Field of Study	Total	Per cent
Agriculture, Animal Husbandry	7,656	1.7
Architecture, Building	9,678	2.20
Arts, Humanities & Social Sciences	101,495	23.16
Business Administration, Economics	53,482	12.20
Accountancy	38,110	8.70
Education	72,578	16.56
Engineering, Surveying	33,178	7.57
Health	48,195	10.99
Law, Legal Studies	11,693	2.67
Science	60,706	13.85
Veterinary Science	1,526	0.35
	438,297	100.0

Source: Compiled from DEET, 1991, Table 3 and DEET, 1990, p.7

Accounting courses offered by higher educational institutions include both undergraduate and postgraduate courses. In 1989, 93 courses were offered which were accredited as providing the educational requirements necessary for admission to the ASA; 72 of them were at undergraduate level and 21 were postgraduate. There were 95 courses leading to the ICAA membership; 74 undergraduate and 21 postgraduate (DEET, 1990).

In addition to the above courses which are directed towards professional qualifications, many universities also offer courses leading to honours undergraduate degrees, postgraduate diplomas, master's degrees and doctorates for the purpose of advanced accounting studies and research training.

Professionally Qualified Accountants

In 1989 the two major professional bodies had a total of 77,157 members, 55,453 of whom were ASA members and 19,704 ICAA members. The ASA membership statistics showed that 3,783 (7.2 per cent) of their members had joint ASA/ICAA membership. As shown in Table 3, about 10 per cent of the members of the two

Table 3
Profile of the Membership of ASA and ICAA in 1989

	ASA		ICAA	
	Number	%	Number	%
Male	49,242	85.7	17,630	89.5
Female	8,211	14.3	2,074	10.5
Broad Employment Area:				
Public practice	12,262	21.3	11,336	57.5
Government	9,974	17.4		
Commerce, industry	25,997	45.2		
Non-accounting professions.	1,088	1.9		
Academic & teaching	1,501	2.6		
Not currently employed	418	0.7	7,086	36.0
Retired	4,220	7.4		
Other	1,993	3.5	1,286	6.5
Total	57,453	100.0	19,704	100.0

Source: DEET, 1990, Table 6.1

bodies were retired or lived overseas, leaving about 70,000 in the workforce in 1989. Over a third of the total number of members were employed in public practice or Chartered accounting firms.

Accounting Education by Professional Bodies

The professional accounting bodies provide further education and training to those who seek professional recognition after successfully completing an accredited tertiary course in accounting. In addition, they also organise a variety of educational activities to promote continuing professional education (CPE) for their members.

The major educational activity of ICAA is the Professional Year (PY) Programme which is to be completed by all accounting graduates before they are accepted for professional membership. While pursuing this programme a candidate is required to be in full-time employment with a Chartered accountant in public practice in Australia. It is conducted throughout Australia by the National Education Committee of ICAA. The PY Programme is also offered by a number of tertiary institutions as part of graduate diploma or master's degree courses under the title of Professional Year Higher Degree Programme (PYHDP) (ICAA, 1992). The major programme of training offered by ASCPA is its CPA Programme which is to be completed by all accounting graduates who hold associate ASA status before they qualify for CPA designation. The programme segments are offered by distance learning mode and all important materials are provided by the Society. Voluntary workshops are conducted for selected topics (ASCPA, 1992).

Education by Accounting Firms

Accounting firms, particularly the larger ones, conduct a variety of training programmes for the members of their accounting staff. Since the main function of these firms is to provide consultancy, audit, tax and other services to their business clients, the

purpose of training accounting staff is to enhance their skills to be able to serve the clients more effectively. Therefore, such training is basically within the broad area of financial accounting. This is evident from the type of courses conducted by these firms. For example, some of the programmes of training scheduled for 1992 by Coopers & Lybrand are listed in Table 4.

Table 4
Programmes of Training at Coopers & Lybrand, 1992

Programme	Duration (No. of Days)
Introduction to Business Communication	1
Auditing and EDP Environment	2
Introdction to Accounting Systems	1
Developing Audit Skills	2
Audit Skills in accounting courses	3
Advanced Taxation	2
Financial Reporting	2
Interpersonal Skills	2
Client Management Skills	1
Graduate Business Awareness	2
PY Study Skills	1/2

Source: Coopers & Lybrand (1991) Professional Education Handbook 1992

Accounting Education by Companies

Generally, Australian companies do not conduct comprehensive training programmes for their accounting staff. The practice of these firms is to recruit qualified accountants and give them only on-the-job type training internally. As discussed earlier, structured long-term education and training has been entrusted to the tertiary educational institutions. Nevertheless, since their recruitment members of the accounting staff are expected to maintain their continuing professional development for which assistance and facilities are often provided by the firm. For example, some firms encourage the individual members of the accounting staff to attend external training courses, seminars and conferences at the firms' expense.

3. Accounting Education in Japan

The Japanese Education System

The formal system of education in Japan represents a single track system based on six years of elementary and three years of junior high schooling. This is followed by three years of high school and four years of university education. This single track may be lengthened by pre-elementary kindergarten and postgraduate studies. Alternatively, it may branch into two side tracks: two years of junior college or five years of technical training.

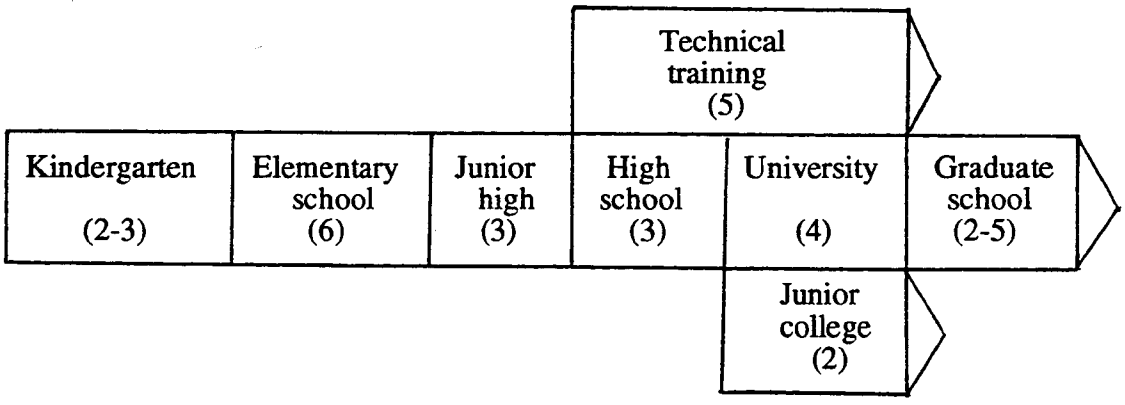

Figure 2 - Structure of the Education System in Japan
Note: Numbers of years are given in parentheses.
Source: Takemura and Takamatsu, 1987, Fig. 13-1

There are two types of high schools - regular and vocational. Junior colleges offer a variety of courses of 2 years' duration. Technical training schools are five-year vocational training centres combining high school and junior college curricula. Their purpose is to turn out technically trained people needed to fill middle-level positions in industry.

There are 460 universities in Japan (95 national, 34 public and 331 private)[3] with the number of colleges totalling 1,170. In Japanese university education, even vocational training is given a theoretical bent. Accordingly, most students do not view major subjects as having any direct connection with their future vocation nor do business enterprises

[3] 'National', 'Public' and 'Private' universities are run by the central government, the local governments (city councils) and the private sector respectively.

hiring university graduates place much emphasis on a student's major area of study (Takemura and Takamatsu, 1987, p.198).

Accounting Education by Educational Institutions

Vocational high schools concentrating on commerce subjects generally offer courses in four subject areas including accounting. But, there appears to be a low preference among students for accounting and other commerce subjects. In the Japanese society, one's future position and advancement depends, to a great extent, on his or her educational background. Therefore, everyone is anxious to obtain university education and, thus, tries to attend a superior high school - one that has a record of placing large numbers of students in the big, prestigious universities. Most of the preferred universities confine their entrance examinations to Japanese, English, Mathematics, Social Science and Physical Science, and any school offering classes deviating from these basic subjects is not likely to experience student favour. As a result of this, vocational high schools are attended by relatively inferior students hoping to get the chance of entering some university. Such students have little interest in accounting.

In a typical national university, first 18 months are devoted to general education and accounting subjects are taught with other subjects during the remaining 30 months. Accounting is offered as a core subject in all commerce and business administration faculties, but only as an optional subject in economics. Students who are interested in doing further studies in accounting can do so by selecting subjects in consultation with relevant staff members who function as seminar leaders in individual subject areas in accordance with their specialities. These subjects in most universities are generally from among those recommended by the University Establishment Standards. The recommended accounting subjects include Bookkeeping Principles, Principles of Accounting (Financial Statement Theory), Cost Accounting, Management Accounting, Business Analysis, Auditing and Tax Accounting. However, as is evident from the

university brochures, most universities seem to offer subjects outside the above list of recommended subjects.

The most significant feature of accounting education in universities in Japan is the overwhelming emphasis placed on theory as against practice. The typical accounting lecture is an exposition of the fundamental theory, with little reference to actual practice in entry-making or financial statement preparation. Consequently, most accounting graduates are unable to prepare an income statement or balance sheet if the slightest complexity is involved. University instructors in accounting, same as in liberal arts and humanities, proudly identify themselves as researchers and show little interest in mingling with the industrial world or the profession. This rather strange state of affairs, however, does not seem to encourage any noticeable expression of dissatisfaction in the eyes of the business community about the quality of accounting education in universities. The reason for this is that employers have been accustomed to the practice of hiring graduates with promising qualities and only a general education and giving them the required practical training at the place of work. At the time of hiring, employers normally look first at the name of the university, then at extra-curricular activities, and finally at the graduate himself or herself via a personal job interview. Rarely if ever do they consider the field of study or vocational aptitude. Furthermore, nowhere is there a call for universities to make their training more practical (*Ibid*, p.206).

Accounting education in Japan is provided at postgraduate level as well. An important feature of postgraduate education is the seminar. As a rule, each student is attached to the seminar of a single adviser throughout the student's stay at the graduate school. The student is expected to study and specialise in his or her seminar adviser's field of research while being an active member of the adviser's research team. The student's future career will depend almost entirely on how well he or she performs as a member of

the research team. Seminars are usually conducted on the basis of group and individual research.

The highly theoretical and non-practical nature of postgraduate education in accounting often leads students towards a teaching career at the university level. However, this does not mean that postgraduate education in accounting is not open to students aspiring to become professional accountants or seeking employment in large companies. But it is highly unlikely that a person who has completed a postgraduate course in accounting will be able to pass a professional accountant's licensing examination with the knowledge gained through such theoretically-oriented postgraduate study. Therefore, what often happens is that some students who are keen to become professional accountants enter the graduate school in name only for the prestige it lends, but then study for the licensing examination on their own or follow classes at private academies known as speciality schools. On the other hand, persons with postgraduate qualifications in accounting very rarely obtain accounting positions in commerce and industry because Japanese companies as a rule hire people with undergraduate qualifications.

Accounting Education within the Company

The most striking feature of accounting education in Japan is the comprehensive in-house training provided by the company. Japanese firms prefer hiring people with strong general skills and training them thoroughly for specific tasks in their organisations. The expenditure incurred on this type of training in industry is reported to be as high as 3 per cent of total sales in Japan while it is only 0.15 per cent in the United Kingdom (Porter, 1990, p.498). Since lifetime employment is a common phenomenon, the expenditure incurred in training employees is seen as a long-term investment for the company.

In-house training in Japanese firms is characterised by a unique system of imparting a basic knowledge of accounting to *all* employees in the organisation in addition

to providing the accounting staff with a much more comprehensive and advanced programme of training. The principal motive behind this practice is to increase the awareness of all workers about the accounting process. Since accounting forms the nucleus of an information network that ties together all the activities of the company, understanding of this process is considered indispensable for all employees. To understand it requires an understanding of one's place in the company organisation and how one's activities affect the success of the company as a whole. It is also believed that an understanding of accounting basics by all employees is necessary to increase employee concern for company operations and to sharpen their awareness of cost-benefit analysis. Also, a higher level of education in accounting is considered essential for department heads and middle managers.

Education and training given to new employees in the accounting department basically aims at making them capable of handling all technical aspects of their accounting responsibilities and acquainting them with accounting operations particular to that business. They are also trained to use more and more new methods and techniques, relevant to the technological changes taking place in industry. A prime objective of this training is to make accounting personnel capable of adapting accounting systems to the competitive environment. Therefore, a great emphasis is placed on the critical importance of cost management from product development to operations.

Accounting education within the company takes various forms including the following:

1. Self-improvement and self-training
2. In-house study classes
3. On-the-job training
4. Job rotation

5. Study classes outside the company

6. Company-funded schooling or study abroad

Self-improvement and self-learning are greatly encouraged partly because of the noninvolvement of large expenditure on the part of the company. Some examples include providing a new employee with accounting text material, encouraging employees to take licensing certification examinations in accounting and offering part payment for a correspondence course.

In-house education takes many forms. The company may establish a separate department to organise and provide employee education or it may set up study groups intended for accounting employees in which internal senior accounting personnel as well as external professionals are employed to conduct lectures, seminars and workshops. Many large firms are well known for their in-house training programmes. For example, Matsushita and Hitachi hire around 1,000 new employees per company each year and train them through a group training programme. In the case of Matsushita, the break-down of time allotted to various activities in the programme designed for all new employees is as shown in Table 5.

Table 5
Programme of Training for All New Employees at Matsushita

Activity	Time Allowed
Lectures in head office	3 weeks
Training in retail stores	3 months
Training in factories	1 month
Lectures in cost accounting	1 month
Lectures in marketing	2 months

Source: Kono, 1984, p.320

An important feature of the above programme is the month long lectures in cost accounting given to all employees irrespective of the type of work they perform. In-house

training for accounting personnel also includes formal education with lectures, course work and examinations. They cover many different aspects of accounting which are relevant to the activities involved. For example, topics covered in an in-house training programme for accounting personnel of NEC are given in Table 6.

Table 6
Topics Covered in an In-house Training Programme for Accounting Staff at NEC

1. **Financial Accounting Area**

   Business Accounting Principles
   Expenditure Accounting
   Accounting for Fixed Assets
   Accounting for Inventories
   Funds Management
   International Finance
   Settlement of Accounts
   Consolidated Accounting
   Foreign Currency Transactions

2. **Management Accounting Area**

   Cost Control
   -Hardware
   -Software
   -Asset Management
   -Inventory Assets
   -Fixed Assets
   Budgetary Control
   Business Analysis
   Capital Expenditure Evaluation

3. **Tax Accounting Area**

   Basics of Business Taxation
   Practice of Business Taxation

4. **EDP Accounting Area**

   Computer-based Accounting Systems

Source: Abe, 1990, p.66

Some programmes of training are informal in nature. Hitachi, for example, uses the small group technique for training accounting staff. These groups are organised under

the overall guidance of the head of the accounting department and are usually headed by a young sectional head. The activities assigned to these groups are explicitly aimed at finding methods of solving problems as well as improving existing methods. Typical topics addressed by these groups are the impact of automation and proliferation of products on cost accounting. The groups discuss and analyse a problem for a time period of six months to one year and their findings and suggestions often become the basis for revision to the accounting system.

On-the-job training is considered the best way to impart knowledge and skills in accounting. It starts when a new employee joins the accounting department after completing the initial period of training designed for all employees. The person is assigned to a supervisor under whose guidance he or she will experience various tasks. Japanese people who are well known for their devotion to group behaviour are particularly fond of this method as new employees receive from experienced employees case by case warnings and pointers regarding various aspects of their accounting activities.

Job rotation is also considered a form of training in many Japanese firms. In the case of training accounting personnel, a system of planned rotation is implemented at the lowest level by moving them across various tasks. At the next level, they may be rotated among the accounting sections of various branches to develop an awareness of different types of activities in the firm. Accounting personnel may also be sent to subsidiaries and associated companies in order to learn their activities and accounting methods.

Educational classes outside the company are also considered valuable mainly because lecturers for them are people with professional experience and knowledge such as university instructors, CPAs, tax experts, government officials, management consultants etc. Moreover, such classes provide one with opportunities to meet and exchange

information with people from other companies. Many companies also send selected employees to universities at home of abroad for special training.

Education and Training for Professional Qualifications

The major professional accounting qualification one can earn in Japan is the membership of the Japanese Institute of Certified Public Accountants (JICPA). The JICPA membership entitles a holder to be recognised as a Certified Public Accountant (CPA). When compared with similar professional accountants in countries such as USA, UK and Australia, the number of CPAs in Japan is quite small (Yukubi, 1987, p.182). Moreover, Japanese CPAs normally do not work as company accountants. Instead, they operate, individually or through audit corporations, as independent auditors, tax practitioners and management consultants for companies. In addition to CPAs, most of the professionals who function as tax accountants are the individuals who have passed the Certified Tax Accountants' Examination. In 1980 there were 24,877 individuals who belonged to this category of licensed tax practitioners (*Ibid*, p.194).

In order to become qualified as a CPA one has to complete three levels of examinations set by the Japanese Government. The first is a preliminary examination and the second examination is to assess the subject knowledge and to determine whether or not a candidate has sufficient expertise to become a junior accountant. Candidates passing the second examination are eligible to acquire the professional skills necessary to become CPAs. This involves acting as assistants to CPAs for three years comprising one year of training and two years of practical audit experience. Most junior accountants obtain the one-year training by attending courses offered by JICPA while others obtain this training through authorised CPAs. On-the-job training is provided during the two years of their practical experience as paid employees of CPA firms. Upon completion of the training programme, their performance records are reported to and checked by the Ministry of

Finance to see whether they are qualified to sit the final examination which is aimed at testing their technical competence.

No universities or other institutions operating in the public education system offer courses or do any teaching directed towards professional qualifications in accounting. Such education is provided mostly by numerous private academies. Many prepare for professional examinations by self study. JICPA conducts some training programmes only for prospective CPAs. Consequently, the pass rate at CPA examinations has been extremely low. For example, in 1985, of 3969 candidates only 317 passed the final examination indicating a pass rate of only 8 per cent (Takemura and Takamatsu, p.312).

4. Comparison of Accounting Education in Australia and Japan

Our discussion in the preceding two sections reveals a number of important differences in accounting education in Australia and Japan. A summary of major differences is provided in Table 7. Most of these differences are seen to be attributable to the historical, social and economic conditions in each country.

The most significant difference is that accountants for industry and commerce in Australia are basically trained by universities and other higher educational institutions. The courses offered by these institutions as well as those provided by the professional accounting bodies and accounting firms have a heavy content of financial accounting and related subjects such as taxation, auditing and law while relatively much less weight is given to cost and management accounting. In contrast, accountants for Japanese companies are trained almost entirely by the companies themselves and their programmes of training place a much greater emphasis on cost and management accounting.

Table 7

Summary of Major Differences in Accounting Education		
	Australia	**Japan**
Nature of accounting education	General	Firm-specific
Nature of university accounting education	Emphasis on both theory and practice	Heavy emphasis on theory and disregard for practical aspects
Trainers of company accountants	Tertiary educational institutions	Individual companies (employers)
Accounting education for whom	For accounting staff only	Basic training for all employees and advanced training for accounting staff
Course structure	Emphasis on financial accounting	Emphasis on cost and management accounting
General education component in university accounting programmes	Very small	Very large

Unlike in Japan, most business enterprises in Australia employ professionally qualified accountants in their accounting divisions. For example, of the total number of 57,450 ASA members, only 21.3 per cent were in public practice and 45.2 per cent functioned as internal accountants in industry and commerce in 1989 (Table 3). Furthermore, it is interesting to observe that Japan, being one of the industrial giants in the world with a population of nearly 130 million had less than 10,000 public accountants (CPAs) whereas Australia with only a moderate development in industry and commerce and about 16 million people had 23,590 such accountants (CPAs and CAs) in public practice in 1989 (Table 3).

In Australia, all persons aspiring to become accountants pursue a tertiary education programme consisting of courses which are quite similar in structure, content and method

of instruction whereas their Japanese counterparts follow programmes of training which vary significantly in all the above aspects depending on the needs of individual employers. Thus, accounting education in Australia is more or less general while it is firm-specific in Japan.

Another unique characteristic of the Japanese system is that, in addition to the training of accounting staff, basic accounting with an emphasis on costing is taught to all employees and a higher level of training in accounting is given to all department heads and middle managers. Accounting education within the company in Australia, however, is more or less confined to those engaged directly in accounting activities and neither department heads nor middle managers in non-accounting departments are required to acquire at least a basic knowledge of accounting.

The major difference in accounting education provided by Japanese universities is the heavy emphasis placed on theory and the disregard for practical aspects including entry-making and financial statement preparation. As such, it does not aim at producing either public accountants or company accountants. In contrast, accounting education provided by tertiary institutions in Australia covers both theoretical and practical aspects.

Finally, it can also be seen that accounting education provided by universities in Australia and Japan differs greatly in terms of the general education component in their accounting programmes. While Japanese programmes provide a large proportion of subjects unrelated to accounting, Australian programmes devote only a very small amount of their course content to such subjects.

5. Conclusions

It is seen that accounting courses in Australian tertiary educational institutions are greatly influenced by the professional accounting bodies whose prime objective is to get

those institutions to produce accounting graduates who would eventually seek membership in one or more professional bodies. These professional bodies seem to cater more to professional accounting firms than to business enterprises. Consequently, the curricula they insist on for professional qualifications appear to have a bias towards financial accounting and related subjects. Such a bias, however, is not inappropriate for producing accountants going into public practice because the effective performance of their services to clients requires a very thorough knowledge and skills in financial accounting and related areas. But such a system is unable to produce accountants who are capable of adequately satisfying the needs of most business enterprises operating in a highly competitive global environment because the success of such firms depends largely on their ability to make products or provide services at the lowest cost and highest quality. Such firms need accountants who possess much greater knowledge and skills in cost and management accounting than those acquired under the existing system.

Being firm-specific through comprehensive in-house training, the Japanese system is in a better position to produce accountants capable of adapting accounting systems to the different work situations. However, such a scheme of full-scale in-house training is not feasible for Australian firms primarily because of the unaffordable expenditure involved and the high degree of inter-firm mobility of accountants. Yet, it is of paramount importance for Australian firms and trainers of accountants to look for alternative methods to make their training more specific and relevant to the needs of business enterprises.

In Japan, since the graduates hired to be trained in companies are those who possess promising qualities and a theoretically-oriented general education they seem to have a broader outlook and a greater flexibility for adapting to different methods and changing work situations than their Australian counterparts whose university education is often confined to a narrow specialisation with inadequate attention being devoted to general education. It may be possible for Australian universities and colleges to overcome

this problem to a satisfactory extent by enlarging the general education component in their accounting courses and increasing the course duration from three to four years as suggested by the Mathews Committee.

The system of imparting a basic knowledge of accounting to all employees seems to have produced significant long-term results in Japan. In Australia, particularly within the firm, accounting is not given such importance and, consequently, employees in general appear to be less conscious of costs and benefits. Therefore, some positive action is needed to improve this situation. Learning from the Japanese experience, it may be worthwhile for Australian firms to give such a training at least to their department heads and middle managers. It should be noted that several researchers (Hatvany and Pucik, 1981; Kaplan, 1983) have concluded that many of the successful management practices in Japan are relevant and transferrable to other countries, despite their close link with the Japanese culture and philosophy.

However, a weakness in the Japanese system is seen in the area of professional accounting training. Education directed towards professional accounting certification in Japan seems quite inadequate. It is important to consider that the professional accountant should be a person with high-minded, free-thinking intelligence and a sensitivity to business ethics. Moreover, professionally qualified accountants in Japan go into public practice and do not normally work as company accountants. As such, it seems appropriate for Japanese universities to contribute to this area by making professional accountants' training a subject in its own right and offering it as a postgraduate course.

LIST OF REFERENCES

Abdelrahman, Q.M. (1988), *Jordanian Accounting Practitioners' Perception of Undergraduate Accounting Program Content*, PhD thesis, University of Georgia, Michigan: U.M.I. Dissertation Services

Abe, S. (1990), "Education of Accountants: The Case of NEC", (In Japanese), *Kigyo Kaikei,* Vol. 42, No. 5, pp.62-67

Australian Society of Certified Practising Accountants, (1992), *Achieve Personal and Professional Success as a Certified Practising Accountant,* January

Australian Society of Certified Practising Accountants and Institute of Chartered Accountants in Australia, (1991), *Guidelines for Joint Administration of Accreditation of Tertiary Institutions by the Professional Accounting Bodies,* June

Brimson, J.A. (1986), "How Advanced Manufacturing Technologies Are Reshaping Cost Management", *Management Accounting*, March, pp.25-29

Coopers & Lybrand, (1991), *Professional Education Handbook 1992*

Department of Employment, Education and Training (DEET) (1984), *Education in Australia,* Canberra

---------- (1990), *Accounting in Higher Education: Report of the Review of the Accounting Discipline in Higher Education,* Volume 1, June, Canberra

---------- (1991), *Selected Higher Education Statistics 1991*, Canberra

Dilts, D.M. and G.W. Russell, (1985),"Accounting for the Factory of the Future", *Management Accounting*, April, pp.34-40

Gynther, R.S. (1983), "The Role of Tertiary Accounting Education in Today's Environment", *Accounting and Finance*, May, pp.1-19

Hatvany, N. and V. Pucik (1981), "An Integrated Management Systems: Lessons from the Japanese Experience", *Academy of Management Review*, July, pp.469-478

Hilmy, J. (1989), "Philosophical Foundations of Accounting Education in the Future", *Papers and Proceedings of the Pan-Pacific Conference VI*

Institute of Chartered Accountants in Australia, (1987), *Members Handbook*, Sydney, ICAA

Kaplan, R.S. (1983), "Measuring Manufacturing Performance: A Challenge for Managerial Accounting Research", *The Accounting Review*, October, pp.686-705

----------, (1984), "Yesterday's Accounting Undermines Production", *Harvard Business Review,* May-August, pp.95-101

Kono, T. (1984), *Strategy and Structure of Japanese Enterprises*, New York: M.E. Sharpe Inc.

Lee, J.Y., (1987), *Managerial Accounting Changes for the 1990s,* Addison-Wesley Publishing Company

Porter, M.E. (1990), *The Competitive Advantage of Nations*, London: The Macmillan Press Ltd

Seed, A.H. III (1984), "Cost Accounting in the Age of Robotics", *Management Accounting*, October, pp.39-43

Sprouse, R.T. (1988), "Commentary on the Synergism of Accounting and Accounting Education", *Accounting Horizons*, March, pp.102-110

Takemura, N. and M. Takamatsu (1987), "Accounting Education in Japan", in F.D.S Choi and K. Hiramatsu (ed.), *Accounting and Financial Reporting in Japan*, Van Nostrand Reinhold (UK) Co. Ltd, pp.196-217

Yakubi, K. (1987), "The Accounting Profession in Japan", in F.D.S. Choi and K. Hiramatsu (ed.), *Accounting and Financial Reporting in Japna,* Van Nostrand Reinhold (UK) Co. Ltd, pp.180-195