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1.1 Introduction

The Australian case study for the OECD Thematic Review of the First Years of Tertiary Education was conducted in mid-1995 and reported in 1996. A number of changes have occurred in Australia since then, notably the change of government in 1996 and the establishment in early 1997 of a Review of Higher Education Financing and Policy led by Mr Roderick West. The final report of the Review (also known as the West Report*)* was released a few days before the Australia Seminar to follow up the OECD Comparative Report in Sydney on 20–21 April 1998.

The seminar has three main themes:

- Students at the centre of the education paradigm—changing patterns of demand;
- The case for a conceptually coherent education sector; and
- Universal participation—implications for policy makers, institutions and students.

These themes feature importantly in the OECD Comparative Report, the West Report and the opening statement by the Hon. Dr David Kemp MP, (then) Minister for Employment, Education, Training and Youth Affairs. The two reports and the Minister's statement provide a very solid foundation for the development of policy.

The focus of the seminar was on teaching, not research. This is not because teaching is more important than research but, as pointed out in the OECD review, because teaching has not received its due, and there have been other studies focusing on research. The explosion in participation also puts teaching firmly in centre stage.

1.2 Background

Professor Malcolm Skilbeck provided a comprehensive background for the seminar. The Thematic Review defined *tertiary* in a generic sense to signify a stage or level beyond secondary, and including both university and non-university types of institutions and programmes. It is open not only to school completers but to mature age students admitted on a variety of bases.

This definition was later expanded on by Dr Kemp: *The tertiary sector now embraces the new national apprenticeship system, nationally recognised industry training, TAFE, private training providers and public and private universities.* This provides the widest possible view of tertiary education. It also has the implication that there is a large number of interested parties including employers, professions, community, and government as well as students and institutions.

Professor Skilbeck concluded his paper with a succinct summary of issues arising from the OECD's work of relevance to Australia:

- there is a need for a new balance between teaching, research, consultancy and community service, with due recognition for high performance. In particular, there is a widely perceived need to *give more honour* to teaching;
- improvements are needed in the transition from secondary to tertiary education and in student guidance, support and monitoring services;
- more and better information is needed on high failure and drop out rates and their causes;
- a client and stakeholder orientation should govern both public policy and institutional practice; partnerships for policy-making, provision, finance and governance need to be extended; and
- tertiary education for breadth, adaptability, citizenship and personal values is receiving much less attention than is desirable due to the concentration on highly specialised and professional knowledge.

Dr Kemp's opening statement provided a challenging counterfoil to Professor Skilbeck's scene setting. The statement outlined the Government's stance on a range of issues. Of particular relevance to the seminar was a clear enunciation of the Government's objectives in higher education:

- expanding access for all who can benefit;
- flexibility in our institutions in order to address the challenges;
- wider opportunities and choice; and
- greater provider diversity.

In respect of the need for flexibility, the Minister stressed the need for universities to be autonomous and for decentralised policy and financing frameworks. He further stressed the need for universities to be responsive and innovative and gave a flavour of innovations underway: *strategic repositioning, course redesign, new delivery technologies, including on-line access, credit transfer and articulation, and collaboration across institutions, across sectors, with industry and internationally.*

The Minister also referred to financing and pointed out that the Commonwealth was maintaining funding per full-time equivalent student for the agreed profile of enrolments, and that total revenue for the sector was at a record high. He pointed to the room for efficiency improvement in the sector, which would free up further resources (while acknowledging a number of initiatives by individual institutions effecting large gains in productivity).

Finally, the Minister stressed the importance of undergraduate education as a foundation for lifelong learning, the need for education providers to be responsive to students to enable them to achieve their goals, and the need for better information to both assist students in making sensible choices and assuring the community of the quality of their offerings.

2 Universal participation—implications for policy makers, institutions and students

Australia has already achieved phenomenal growth in participation resulting from deliberate policies to increase overall school retention and tertiary participation. Dr Kemp referred to estimates that around 90 per cent of the current cohort of 18-year-olds could expect to attend tertiary education at some stage in their lifetime. These estimates suggest that Australia has reached universal participation, although issues of duration and patterns of education remain. Beyond initial education, requirements for retraining and upskilling will drive increased demand for continuing education. Growth in student numbers will also continue to be fed from population growth.

Professor Elaine El-Khawas opened this session by focusing on the inevitable increase in diversity. A major implication of universal participation for students is wider choice, as institutions broaden their offerings and diversify their methods of delivery. Wider choice results in more dispersed patterns of study, with large numbers of students transferring between institutions or enrolling concurrently in more than one. In turn, wider choice will make it more complex both for students and institutions to attempt to integrate the whole array of learning that is being accumulated.

Universal participation also implies greater diversity in the learning experience itself, whether in a face-to-face situation (lectures and seminars) or through distance learning or electronic delivery. In each setting, the opportunities for students to engage in thoughtful discussion with lecturers or with fellow students are likely to become more limited. Greater diversity of student learning does imply that poor learning experiences do take place and should be recognised.

For teachers, the greatest concern of universal education is the increased diversity of students’ ability and skills, prior learning and maturity. Attention needs to be given to the preparatory role of secondary education, the recognition of prior learning and credit transfer. Institutions and systems also face new challenges as universal participation is approached. More dispersed patterns of study and greater diversity of learning experiences create a new imperative for co-ordinated record-keeping systems and policies, for example, in order to track the higher percentage of students who change study plans or who enrol in more than one institution.

There will be significant pressure to make better assessment of student learning to evaluate student progress and to determine their proper placement in a course sequence. The conventional methods are becoming submerged by the sheer volume of students and the dispersion and diversity of their learning experiences. There will be a need for improved methods to facilitate transferability of learning in ways that are both smooth and equitable. There will also be challenges to the credentialling role of higher education, especially to do with assumptions about the coherence and integrity of degree structures. Clear, educationally sound policies and widely applicable rules for structuring programmes will be needed rather than reliance on the legitimacy and reputation of specific institutions.

In order to accommodate greater dispersion of study patterns, institutions need to operate more as brokers of tertiary education. The emphasis is on recruiting people in rather than screening them out and backing that up with comprehensive support services. The move to open entry, described by Professor Jarlath Ronayne of Victoria University of Technology, is a good example. It provides a programme of study which enables students to achieve their goals. However, the contract agreed between the university and the student demands equal responsibility from students.

Institutions will need to decide how to adapt their mission, in particular whether it should reflect a broad or narrow range of programmes and services. Two extremes are possible: the anytime/anyplace university embracing all students, fields of study and modes of learning, or the targeted university with restricted admissions and limited fields and geographic markets. To some extent the anytime/anyplace university already exists. Large numbers of students transfer each year between institutions. Students come into one course hoping to upgrade either to another university or to another course.

The extent of student shifting between courses and universities confounds the measure of attrition rates. How can universities be judged on attrition rates when they are due to student mobility? Under this amount of student mobility, attrition no longer becomes a statement of what the institution does; it is a statement of what the student is choosing to do. What can be used as outcome measures for patterns of learning that are different from the traditional fixed place-fixed course university system?

Universal participation thus represents a qualitative change that brings with it distinctly different circumstances from those associated with the earlier transition to mass participation. It will increase the complexity of transactions that occur between the student and the institution and fundamentally challenge the ways in which academic programmes are structured.

At systems level, implications will arise from the fact that many of the issues referred to above will require solutions that are consistent across all of higher education. Policy officials will have responsibility for setting directions and for ensuring that outcomes serve the public interest. However, the most important role of government may be not to direct, but to provide the conditions in which the policy objectives can be realised. This is certainly consistent with Dr Kemp's opening remarks. The more direction that takes place, the less likely it is that those objectives will be achieved.

Finally, in the move to virtually universal participation, it is important to consider those who are excluded because of educational or social disadvantage. The question of how one sets entry qualifications or standards is a key issue.

2.1 The case for a conceptually coherent tertiary education sector

Pressures towards convergence between higher education and vocational education are occurring as technical occupations require more advanced skills to cope with the increasing sophistication of technology, while all occupations require generic skills to facilitate adaptation to change. These pressures are producing changes in programmes within each sector, with universities imparting more vocational skills and TAFE becoming less technical and more generic.

The increased diversity of student profiles has also contributed to the breaking of formerly rigid boundaries in tertiary education, as individual students spread their learning across different levels and sectors and between public and private providers. Within an institution a student's category is no longer so clearly predictive of the programme in which she/he is enrolled. These developments underscore the point that the issue is not so much volume of participation but rather options for different types, forms and timing of learning.

The differentiation between sectors will become less distinct, with programmes in each sector having both generalist and vocational characteristics. Already many TAFE institutes have developed Advanced Diplomas of three years' duration, and a few have been empowered to provide degree courses which were historically the preserve of universities. For their part, universities which evolved from Institutes of Technology have retained an emphasis on practical, applied education and either have a TAFE component within their overall organisation or are forging close links with TAFE institutes. Students will be able to undertake a mix of subjects or modules offered by universities and TAFE institutes and not be confined to institutions which offer only one or the other.

In Australia, one of the differences between universities and the vocational sector is that universities are self-accrediting, whereas the vocational sector has a central accrediting mechanism at State level. In an integrated approach that difference may be a source of tension. One possibility would be to accelerate the current trend for TAFE institutes to essentially accredit their own activities.

Professor Iain Wallace of Swinburne University of Technology, in his paper which opened the session, proposed a 2 + 2 structure, similar to community colleges in the United States. This model enables students, during the foundation stage of two years, to acquire generic competencies and/or technical skills resulting in the award of an associate degree. The focus of this stage is on learning and teaching. During this stage, the provider could be a TAFE institute, a public university or private provider.

The second stage would lead to a degree and should necessarily expose students to the thinking of teachers who engage in research. It follows from the model that programmes for entry into the professions would be entirely postgraduate.

The model put forward by Professor Wallace engendered a lively debate. Dr Ian Allen, in his response, observed that the model has a number of potential benefits:

- the needs of a wider range of students could be met at potentially lower cost;
- access could be provided more widely on a geographic basis; and

- delaying entry to professional training could ease current pressure points and help reduce mismatches between student aspirations and vocational outcomes.

On the other hand, the model raises a number of questions:

- If there is a legitimate difference between the nature of higher education and vocational education and training (VET), at what point in the educational sequence should it come into place?
- Is a clear distinction in the nature of what is offered in the two stages sustainable given the Australian experience with status creep and imitativeness in the tertiary education system? and
- Can we afford the cost of delaying professional education? Perhaps it would be more effective for professionals to continue their education during their career.

The discussion raised a series of issues. It could be argued that the 2 + 2 model may be unduly restrictive and not appropriate for many individuals and courses. Then there are issues about whether the initial 2 years would be poorer if a research culture were not present. There is also the issue of access with reference to universities providing both sections of the model, and other institutions only providing the first level. Would people from the lower level institutions get equal access and guaranteed places to the higher level institutions?

The trend in Australia has been towards greater diversity which would fly in the face of a standard model although there remained concern about the essential differences between different forms of tertiary education. The difference is not only evident in students' backgrounds, in curricula, in staff qualifications and expectations of what staff do, but also in the role research plays in various institutions. There are many students coming into year 2 or year 3 at university from an environment where there was no research, and there are also many students who would want to be in what they would call a proper university environment from day one, particularly in the humanities where the teaching–research nexus is much closer, even in first year. However, we are seeing a type of 2 + 2 model that has already emerged. At least one university is offering full fee-paying entry into the third-year programme and is offering scholarships into their fourth-year honours programmes.

Coherence can also be approached in a quite different dimension. One such dimension was concerned with coherence from the point of view of the student and a policy framework which would ensure that finance structures are not skewing the choices of students. So the structures will follow student choice, rather than being determined by some kind of state intervention which is implicit in the current model. The West Report's concept of a learning entitlement, many aspects of which have yet to be sorted through, is based on this sort of financial coherence.

Another perspective is from the point of view of coherence in the educational programme, in the educational experience. In a very diverse system, with students of very different abilities, preparation, studying in different modes, at different times, and perhaps 'swirling' from institution to institution, it becomes increasingly difficult to provide a coherent degree structure. On the other hand, students may be attracted to programmes which make a virtue of their coherence.

It is useful to conclude with the observation that there appears to be two systems in the world: one is the parallel streams system, which is the classical model with university and non-university or extra-university and, in many cases, never the twain shall meet. The other is the unified system, which must depend upon greater conceptual clarity. Perhaps the best example of that is the United States. But it has not been achieved through masterminding at the national level; it is a much more evolutionary process. The debate on coherence, in its many aspects, will no doubt continue.

2.2 Students at the centre of the education paradigm—changing patterns of demand

The starting point for the session, opened by Dr Alan Wagner, was the sources of demand for growth identified by the OECD Thematic Review. These sources are increased rates of secondary school completion, rising aspirations generally, and underlying changes in national economies. The trend has been for continued growth in tertiary education, even in countries with already high rates of participation.

While some countries believe that a natural limit is being reached in terms of capacity to absorb the skills profile now available, a case for continued expansion can be made on the following grounds:

- relative rates of return on investment in tertiary education are significant and have been maintained as graduate numbers increase;
- policy makers are showing a renewed interest in treating expenditure on education as an important national investment contributing to economic growth and well being; and
- restructuring appears to be leading to an upgrading of skills requirements, with many employers adapting models of production to take advantage of the available skills profile.

A major influence on future scenarios is the move to a knowledge-based economy. The increasing use of technology and the growth in the service sector will impact positively on demand.

The paradigm shift involved in putting students at the centre of the system and setting their needs at a higher order has major implications for the delivery of the kinds of packages, programmes and employment pathways that students want. It is associated also with a move away from education as a government-funded public good and more as an investment by individuals in their human capital.

The corollary to this approach is that the investor (i.e. the student) will have to make a substantial contribution to the cost. Dr Wagner pointed out that this raises several issues: effects on access and efficiency; risk of marginalisation of those who do not participate; and the life cycle and intergenerational effects of student debt.

Professor Millicent Poole, in her commentary, raised some pertinent issues in respect of access. While Australia has been very successful in promoting participation by women and mature age entrants, it has been less successful in increasing participation among lower socio-economic groups and in rural areas.

There seems to be some conflict between what employers are looking for and what students think they need in order to enter specific fields of employment. Major employers tend to draw the line fairly broadly and in this respect concur with what providers believe is appropriate for university education. Students are often seeking something quite specific and may feel at the end of a course that they need something additional. This is underlined by figures recently which show that in Australia there is a greater flow-on from university graduates into TAFE programmes than there is the other way around. The notion of students tailoring courses for themselves may be at variance with broader notions of what a graduate should be.

Evidence that students are actively tailoring their own courses also comes from the number who have been taking double majors—science/law or whatever—to maximise their own career options, pathways and possibilities. An alternative, rather than more students having to do double degrees with double time, is a better packaging of shorter modules which will add up to something coherent that will satisfy the professions and satisfy students. Whether such an alternative is possible is not obvious.

There is a strong argument that there should be a shift in the paradigm towards the student, but certainly not to the exclusion of a significant stakeholder interest, nor to the exclusion of concepts of academic influence, which are enshrined in the structures of subjects as defined by specialists. Nor should it be to the exclusion of the concept of educational coherence which may be suffering somewhat in some of these changes.

It was argued that programmes should not be formulated solely in response to student demand. There are public and employer interests at play, and considerable understanding of how a body of knowledge can be accessed, understood and applied is found within institutions and programmes. Those programmes need to be developed, however, in the light of the interests, backgrounds and choices of students. However, student choice does not automatically mean educational incoherence. Many students will be happy to select from a range of educationally coherent programmes.

One of the things that is happening with student centredness in Australian higher education is the changing nature of the curriculum *within* the sector—that is, within higher education. While universities have always had a vocational orientation with regard to the high status professions, there is much more emphasis now on vocationally-oriented programmes, degrees in tourism and the like. It is not just a matter of putting together different bits in new packages; totally new packages are being produced which, to some extent, overlap with the vocationally oriented sector. Changes in enrolment patterns between sectors miss the point of what is happening in Australia.

As well as challenges to the traditional discipline-based course, there is a marked trend in student choice for longer programmes through dual awards. Large numbers of the higher achieving students are going into double degrees that are lengthening the period of the first qualification. The lifelong learning philosophy may have important implications for the structure of first qualifications.

Any discussion on 'student centredness' inevitably raises the issue of standards. This is critical to discussions about a seamless education system, a coherent system, articulation, lifelong learning, graduate attributes and skills. In a universal tertiary education system the articulation of standards and clear responsibility for preparatory or remedial work needs to be negotiated, as does the role of schools. Again, the question arises, where do the responsibilities and accountabilities lie in a democratic society? Surely the government has a role to play in setting the frameworks, the institutions similarly at a micro level, the teaching staff as professionals and the students as autonomous and independent learners.

2.3 Conclusion

The seminar addressed three very important issues and gave rise to a very lively debate. The first point to emerge is that the three issues—universal participation, a student-centred paradigm and coherence—are all inextricably intertwined.

While Australia may have, in a loose sense, achieved universal participation, many challenges remain. Not all sections of our society benefit equally in either access or duration and nature of study. Current levels of universal participation do not imply stagnation. Ensuring that all are included and providing appropriate pathways and opportunities to participate when it suits students (and employers) provides a challenge. Only a diverse range of institutions and programmes could hope to meet such a challenge.

This leads immediately to 'student centredness'. Is the current mix between vocational and general education meeting the needs of students? Are institutions diverse enough and flexible enough to meet the needs of students? An argument can be made that dynamism of student choice will be a positive force against the natural conservatism of the institutions. Are our institutional and financing frameworks appropriate or are we constraining or even distorting student choice? To what extent should governments steer the shape of the sector and the content of courses?

While the concept of student choice is consistent with the notion that students are individuals making their own investment decisions in their own human capital, it provokes immediately issues of coherence. This has many dimensions. Will students be able to make optimal choices unless finance structures are coherent across the tertiary sector? If students determine study programmes, will the needs of employers be met? Should students determine the balance between different parts of the tertiary sector, or should governments and employers shape the balance? Is there a risk that programmes will be educationally incoherent? Surely, the institutions and their scholars are in a better position to construct coherent programmes than relatively inexperienced students.

No definitive conclusion is possible. However, universal participation and student centredness has implications for all stakeholders:

- government and students must share financing;
- governments need to provide frameworks (not bureaucratic direction) which encourage diversity and informed rational choice;
- institutions must meet the needs of students without sacrificing educational coherence and the broad requirements of employers and professions; and
- employers need to demand tertiary graduates who can meet the needs of the workforce in the future as well as the present.

While appropriate financing, public accountability and provision of information are critical, it is the institutions who must, at the end of the day, take responsibility for the quality of the education they provide.

In this day and age it is not possible to finish any discussion on tertiary education without more directly discussing finance. It is not the place to launch into a debate about financing structures and appropriate shares between public and private (although the earlier discussion touched on these). However, we do need to focus on efficiency because of the size of the tertiary education sector we now have. This has two dimensions. First, institutions need to marshall their resources effectively and governments have a role to assist in this. Secondly, universal participation needs to be transformed into universal success. Student attrition or unduly long duration of courses is not a sign of high standards. Rather, it indicates wasted opportunities and is a challenge to all stakeholders: government, institutions, students and the wide community.

All must take their share of the responsibility.

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Australia

3 Discussion Papers

3.1 Strategic developments in higher education

The Hon. Dr David Kemp MP, (then) Minister for Employment, Education, Training and Youth Affairs

I welcome this opportunity to meet with you, to take stock of the 1995 OECD Thematic Review of the first years of tertiary education, to consider recent developments and to discuss future prospects.

May I also welcome back Professor Malcolm Skilbeck, Dr Elaine El-Khawas and Dr Alan Wagner. You join us again at an interesting time in Australia's tertiary education policy experience and we look forward again to your challenging observations.

The OECD review in Australia focused on the structural reforms to higher education following the previous Government's White Paper of July 1988—almost a decade ago. The review report was completed just over two years ago, on the eve of the election of the Howard Government.

In August 1996 the new Government initiated a set of far-reaching reforms to expand opportunity and choice in higher education and I would like to update you on developments arising from those reforms. We also appointed an independent committee to review higher education financing and policy to lay the basis for a longer term strategic view of the higher education sector. This committee, chaired by Mr Roderick West, has just presented its final report.

The West committee's final report, *Learning for Life*, is an important contribution to the development of a 20-year strategic perspective for higher education. I thank and commend the committee for its work. I am confident this report will be a constant reference for all of us as we continue in the years ahead to improve the responsiveness, coherence and cost-effectiveness of education and training provision.

The West report indicates the need for a decade of transition to the new arrangements it envisages. Obviously the Government will need some time to consider the detailed proposals of the West committee before making a comprehensive response. And clearly, as the committee itself points out, were the Government to pursue particular recommendations there are many complex policy and administrative issues to be worked through and much consultation to be undertaken with the States and Territories and other stakeholders.

Government objectives

The Government seeks to pursue a number of objectives in higher education. These include expanding access for all who can benefit from tertiary education. The challenges of the global environment and new technology place a premium on flexibility in all our institutions. We aim to see wider opportunities and choice for people to obtain the education and training they need, when they need it, and in ways and at places and times that best suit their particular circumstances. We want to see greater provider diversity to enable improved access and choice, and multiple pathways between education and training and work available to people at varying stages throughout their lives.

We see education and training contributing to individual autonomy, social cohesion, a more democratic society and economic efficiency. We aim to ensure that education and training is both appropriate and effective; that it responds to contemporary realities and the changing environment and delivers the learning outcomes we expect of it. And our expectations of tertiary education are high. We want Australia to have and be recognised for high quality, world-class education and training. We expect increasing efficiency and effectiveness in the use of public funds, and we encourage institutions to expand and diversify their sources of income on a secure base of public investment but with increased self reliance.

That said, it is appropriate for me here to indicate some initial thinking on some aspects of the West report, especially those that relate to issues arising out of the OECD thematic review. In particular, I would like to comment on the important goals of expanding opportunities for lifelong learning, improving the effectiveness of teaching, learning and assessment, increasing choice and widening pathways for individuals, and improving quality and institutional efficiency.

I strongly endorse the committee's view of the importance of higher education in enabling us to adjust democratically and competitively to the challenges of the global economy and the information society. As the committee expresses it:

> *The most important contribution that the higher education sector should make is to provide a learning environment that will enable its graduates to emerge with the skills and knowledge that will meet the economic, social and environmental challenges of the twenty-first century. It should enable individuals to grow intellectually, to achieve personal fulfilment and to contribute fully and at the highest levels to society, the workplace and the nation.*

The need for flexibility

The West committee argues validly that we cannot afford to be complacent. We must face up to the imperative for continuous improvement and greater flexibility in tertiary education arrangements. The committee notes the growing demand for continuing education in the work force, the rapid change associated with new information and communication technologies, increasing competition in the provision of education services and rising expectations of students, their parents and employers looking for products tailored to their particular interests and needs. The committee concludes:

These broad developments, and the ultimate uncertainty of the future, underline the importance of a policy framework which gives as much flexibility as possible to universities and students, and highlights the importance of building institutions that are responsive to change.

I have long held the view that higher education quality and diversity flourishes when universities have autonomy to pursue their own ways and means of achieving their objectives. And I have long been a critic of bureaucratic intrusion into the detailed affairs of universities. But it is true that universities have been less than fully responsive to the diverse needs of their students and somewhat insular from the real world where their students are working or seek to work. Teaching is still under-valued and two-thirds of graduates have consistently expressed dissatisfaction with their teaching. While there have been significant achievements in Australian higher education over the past decade, as the OECD Thematic Review has observed, one of the costs of efforts to impose a centralised system has been the growth of a culture of dependency on government.

I agree with the view of the West committee that the more rapid and unpredictable is change and the more demanding are social expectations, the less able are central decision makers to know best. Decentralised policy and financing frameworks that allow and require institutions to respond flexibly to student choice are more likely to meet diverse needs and stimulate innovation.

As the West committee notes, central administrative controls have been progressively relaxed 'to allow student demand to play an increased role in the allocation of resources and to provide institutions with greater responsibility for managing their resources.' The 1996 Higher Education Budget Statement initiated a set of deregulatory reforms to provide additional choice and opportunity for students and generate additional revenue for universities as well as providing extra incentives for diversity among institutions.

The universities can set their own fees for postgraduate places and they can charge fees to overseas students enrolled in undergraduate and postgraduate courses. This year sees the removal of the former Government's inequitable prohibition on offering fee-paying places to Australian undergraduates. This year also sees universities being funded according to the actual number of students they attract and retain, with operating grants adjusted by the minimum up-front HECS payment for undergraduate enrolments above or below their profile target. These are far-reaching shifts to the structure of incentives. We will be monitoring the varying responses of the universities. I expect we will see increasing differentiation and innovation. Indeed that is already becoming evident.

Encouraging a culture of responsiveness and innovation

I will be discussing with the universities how we might best develop the future policy and financing framework and, in particular to further strengthen the links between student choice and funding mechanisms. The Government has no intention, however, of introducing a voucher scheme for university funding. Less administratively complex ways of expanding choice can be pursued. We want to pursue change in ways which are manageable for the institutions and will show results in the form of increased educational responsiveness to varying student needs and circumstances.

Let me give you a flavour of the innovations underway. They involve strategic repositioning, course redesign, new delivery technologies, including on-line access, credit transfer and articulation, and collaboration across institutions, across sectors, with industry and internationally.

Strategic planning has now become a sophisticated process in many universities. Mission statements are now more differentiated as universities are identifying their distinguishing features and targeting particular markets. Course offerings, research concentrations, resource allocations and performance reporting are more consistently linked to strategic goals and priorities. The analysis of strengths underpinning the Ballarat University plan is particularly impressive. The Monash University plan is comprehensive, well integrated and focussed on innovation and internationalisation. The Wollongong University plan is strongly student centred and performance-driven. The Murdoch University plan puts quality improvement at the core. The QUT plan is backed by rigorous internal benchmarking through Course Performance reports.

Consistent with these plans that recognise the need for the universities to diversify their sources of income and concentrate on their strengths, more institutions are making more focused decisions about new course offerings and rationalisation of existing offerings. New study combinations are being provided for students across discipline areas, and in some institutions across the higher education and VET sectors. Murdoch U, for example, has an entry programme for non-school leaver commencers that blends a semester of TAFE and University coursework; upon successful completion of the semester students can choose to follow either a university or TAFE course.

I am especially impressed by the initiative of the Victoria University of Technology to offer an open-access programme which is customised to the needs, aptitudes and aspirations of each student. VUT guarantees a place to any Australian resident who has passed the VCE or its equivalent, or who is over the age of 21. The university's Personalised Access and Study Policy includes: student compacts (formal agreements between the university and the student to tailor courses and services to meet their needs), pastoral care through an extensive mentoring scheme, articulation between TAFE and Higher Education, recognition of prior learning and industry experience through an extensive programme of industry placements, including cooperative education.

New strategic alliances are forming. At one level there are self-selecting groups forming such as the Group of Eight and the Australian Technology Network universities. Several institutions are participating in international alliances, such as Universitas 21 and the Commonwealth Higher Education Management Service. Cutting across those groupings are specific collaborations such as the Consortium of Australian Management and Business Schools Limited. The six-member universities offer a national Graduate Certificate of Management and a national Graduate Diploma of Business Administration by on-campus study or distance education throughout Australia and in Penang. The courses are offered with a common timetable (including Saturdays) and national assessment, enabling students to transfer and exchange programmes between each university and to articulate into MBA courses. Students can take different units of study at whichever university is most convenient to them.

The University of Canberra (UC) and the Canberra Institute of Technology (CIT) have developed a Memorandum of Understanding encompassing joint development of courses and credit transfer. One example of the collaboration is the National Institute of Design which combines facilities and teachers of UC and CIT to enable fashion designers, architects, artists and photographers to study the practical aspects of forging a career in design.

La Trobe University and The University of Melbourne have an agreement providing for the continuation and strengthening of Modern Greek and French programmes. Where student demand warrants, languages not offered by The University of Melbourne will be taught on its Parkville campus by other providers; Swinburne in the case of Korean and La Trobe in the case of Spanish, Portuguese, Catalan and Hindi. University of Melbourne students can also access Vietnamese and Beginners Thai at RMIT University, and Cambodian, Polish, Thai and Ukrainian at Monash. This is sensible collaboration that maintains choices for students. I will be inviting proposals from the universities generally,under the Higher Education Innovations Programme, for further developing collaborative arrangements to maintain and extend choices for students in areas where institutional enrolments are small.

Collaboration with industry is also increasing. The University of Ballarat and IBM Global Services have a close collaboration. IBM helps guide curriculum development, participates in research and development projects, provides training and part-time work for students and sponsors a Chair in Information Technology. In return IBM Global Services gains access to the university's resources and expert personnel and has the opportunity to recruit graduates from courses in which the company has had influence. The University of Western Australia has contracted with the large engineering company ASEA Brown Boveri to set up a dedicated education facility to service ABB employees. The facility will deliver leadership, management, finance and marketing programmes to the company's employees, tailored to the specific needs of the company and delivered through its Intranet.

Firm-specific programmes are also being provided by Deakin Australia, the University of Western Sydney, Southern Cross University and Charles Sturt University to mention just a few. Melbourne University Private (MUP) is a major new venture, linked to The University of Melbourne. Demand for its services will come from companies seeking special training and development programmes, consultancy and R&D services. MUP will be offering short course modules which are capable of being structured to meet the specific needs of a company and combined to make a formal qualification. Classes are to be held in evenings, at weekends and over summer.

Innovation in instructional design and the use of new delivery technologies is rapid and widespread. The work of the Committee for University Teaching and Staff Development has supported many initiatives. The University of Southern Queensland's Graduate Certificate in Open and Distance Learning via the Internet is an international pace-setter in interactive instructional design. Macquarie University offers an entire first year legal theory course on-line. Deakin University provides on-line support for courses in a range of ways, including the very innovative Web-based case studies, such as Southern Brakes and Plastics, used in the School of Management and Marketing. The Graduate Medical Programme at The University of Sydney is a problem-based learning course, with a large component of course material delivered on-line via an intranet. The University of

Notre Dame provides remote library access and alternative delivery methods, including telematics, the Internet and video conferencing, to the Aboriginal communities of the Kimberley Region.

Student services are also improving. Edith Cowan University has introduced a Web-based enrolment system for all students. New students are given a logon ID and PIN number to access the system which is available from 7am to 11.30pm, 7 days a week. Deakin University has developed a CD-ROM learning tool kit which contains information and software for computer-assisted learning for all students. The University of Adelaide has introduced smart card technology to provide students with more efficient access to library services, access to buildings and services, identification for student concessions and, soon, as a stored-value card for vending machines, photocopying and pay phones. Griffith University has established learning centres at its Logan campus, student work areas with computers and other facilities such as seminar rooms and video-conferencing areas branching off. Every subject offered on the campus has Web-based support materials.

The innovations I have described briefly are not at all exhaustive of the efforts being made across Australia's higher education sector. I have not even touched on the extensive international links that have been formed. But they are indicative of the scale and pace of change. I am conscious in this context of the need in institutions for policy predictability and some assurance from government that the ground rules will not be suddenly altered. In this regard I can say that the Government is committed to a course of deliberate and considered change which is now well underway and is delivering results. I can also assure the universities that the Government intends to maintain payments of operating grants as indicated in the Budget forward estimates so that they can progress their initiatives with confidence.

Continuing expansion in post-secondary education

I was interested in Professor Skilbeck's comments of last night. In his concluding remarks he said:

> *Tertiary education has demonstrated a capacity to expand and diversify to meet the challenge of growth with several countries already well on the path to near universal participation. There have been substantial efficiency gains and many innovations are occurring in the design and delivery of educational programmes.*

The illustrations I have presented of innovations in Australia's universities testify to this remark. Expansion has certainly been a feature of the Australian experience over the past decade. The 1987 Green Paper indicated a target of graduate output by the year 2000 of 125 000 per annum—a result achieved in 1993. The Green Paper envisaged that a maximum level of growth to 145 000 graduates 'would make us comparable with the United States and Canada, but may not be appropriate to our different cultural, social and economic structure.' As it turns out, Australian higher education award course completions exceeded 145 000 in 1996.

In 1996, some 4.3 million persons (48 per cent of the labour force) had attained some form of post-secondary qualification and some 1.9 million (21 per cent of the labour force) were enrolled in higher education or vocational education and training programmes. The tertiary sector now embraces the new national apprenticeship system, nationally recognised industry training, TAFE, private training providers and public and private universities. Preliminary estimates by my department suggest that the probability of a current teenager entering some form of post-secondary education or training at some point in their life is nearing 90 per cent. Duration and success of access vary widely; further analysis is required in this area.

We would need to consider potential to benefit and the respective responsibilities of individuals, employers and the community in order to arrive at a coherent and acceptable financing framework for the longer-term development of policy. However, the goal of tertiary education of some kind for all is not fanciful; it now deserves serious consideration. I note the work of the OECD across member nations interested in this next generation of reform.

The challenge for the next decade is the transition from mass to near-universal tertiary education. This challenge, to establish a lifelong learning culture and invest more deeply in the people of Australia, represents the equivalent for the twenty-first century of the achievement of universal secondary education in the twentieth century. Such an achievement is worth pursuing vigorously and creatively, as it would strengthen the foundations for a democratic society and for the continuing renewal of knowledge and skills essential for Australia’s future competitiveness.

I also note and agree with the West committee’s view that the distinctive roles of the higher education and the vocational education and training sectors should be recognised and valued. There is a need to provide ‘seamlessness’ from the point of view of the student, to remove barriers from student pathways, but without diminishing the diversity and vitality of tertiary education. While we will actively encourage curriculum articulation, credit transfer and cross-sectoral collaboration, the Government has no intention of introducing HECS in the vocational education and training sector.

Tertiary education student enrolments in 1998 are at an all-time high, for the university sector the vocational education and training sector and the apprenticeship system. Looking specifically at the university sector, overall enrolments (excluding overseas students) for 1998 are up by more than 5 100, some 1 per cent on 1997 and undergraduate enrolments are up by more than 7 300, or 2 per cent. Compared with 1996, undergraduate enrolments are up by 18 957 or 5 per cent and fee paying postgraduate commencing students are up by 76 per cent.

In the Australian context, these are especially noteworthy figures. The Government’s opponents have persistently prophesied the demise of the universities and the collapse of student demand following the modifications to HECS of 1996. Many have foreseen the death of science and technology following on the introduction of differential HECS rates for disciplines. Yet in 1998, science enrolments are up 2 per cent on 1997 and engineering up more than 5 per cent. And Law, which is in HECS Band 3, is up 15 per cent.

Government funding per student place

Total revenue from all sources for the higher education sector is at a record high, estimated at around $8.4 billion in 1997 and growing. In constant 1998 outturn prices, Commonwealth funding per full-time equivalent student for the agreed profile of enrolments was $11 344 in 1996; it is $11 451 in 1998 and it is projected to be $11 423 in the year 2000.

A different pattern is emerging when actual rather than planned enrolments are counted. In 1998, the universities in aggregate have enrolled some 45 000 more Australian students than they have contracted with the Commonwealth to provide. Undergraduate enrolments exceed agreed targets by 29 000 (8 per cent). This over-enrolment represents the equivalent of four medium-sized universities of the likes of Macquarie, Adelaide, Tasmania and The University of Western Australia.

Government policy was set in 1996 to enable universities with very low marginal costs to take in additional students. The universities can scarcely claim that they are under-funded in their contracts with the Government when they are so heavily over-enrolling. They will receive marginal funding at the rate of $2 517 per EFTSU for over enrolments net of fee-paying coursework enrolments within total Commonwealth funded places. But over-enrolment to the equivalent of four universities is neither marginal nor accidental. It appears either that the universities do not understand their cost structures, or they have more room than they admit in their base operating budgets. I suspect the latter is the case and there is considerable room for efficiency improvement in the higher education sector. We must assume that these decisions have been taken responsibly and with an eye to quality.

Opportunities for productivity gains

The AVCC has made representations to the Government to introduce some form of indexation for university staff salary increases for the next round of enterprise bargaining. And the West Committee has argued that ‘restrictions on charging fees additional to HECS and regulating tuition charges through HECS mean that increases in wage costs cannot be funded through increased student charges.’ The committee recommends fee deregulation. The Government does not accept there is a case to now relieve the pressure on universities, that applies to almost all other service organisations public and private in the country, to find genuine productivity trade-offs for enterprise-bargained improvements to salaries and conditions.

What eventuated from the first round of enterprise bargaining was the effective capitulation of some universities’ management to nationally-organised, staff union pattern bargaining. Substantial salary rises generally of the order of 11–12 per cent over two years were given without actual productivity offsets, with the possible exception of The University of Melbourne which linked pay rises to the realisation of revenue increases for the university as a whole. Where genuine productivity-related bargains were entered into, in one university with the agreement of local staff, the national office of the NTEU intervened. To accommodate the cost increases, several universities engaged in largely ad hoc reductions to course offerings and staffing redundancies. Only a few seriously analysed their strategic position and rationalised their course offerings in the light of their future competitive advantage. The work of the University of Ballarat in this regard is exemplary.

The first round agreements do provide a platform for achieving real productivity gains in the next round, so long as the matters raised are seriously confronted and not avoided. Most agreements canvass for discussion or agree in principle to consider such matters as performance evaluation of staff, continuous improvement, adoption of new technologies and improved work organisation. Included in this latter category are such matters as the rationalisation of committees, contracting-out of functions, flexibility of working hours and introduction of a summer semester.

The available statistics for1996 show that the VET sector had over 1 million enrolments in 'non-award' and 'other courses', whereas the universities had only 13 000. Now I know that some of the continuation education activity of universities nd the impressive industry-linked courses of Deakin Australia are not currently included in these statistics, but even if they were the university effort would at best approximate 10 per cent of the VET effort. The figures suggest the universities are not vigorously entering that part of the adult education market which the West committee points to as an area of growing demand. The summer semester option might well provide for expanded university offerings of short-cycle programmes and strengthen their contribution to the nation's opportunities for lifelong learning. It could also widen choice for students, enable accelerated completion of longer-cycle courses and make more efficient use of capital and staff time.

It is also the case that the universities have been receiving from the Commonwealth a higher level of contribution to the employer-funded component of superannuation liabilities than is actually provided to staff. By consequence, the university superannuation funds carry large and accumulating surpluses. I have agreed that packaging of salary and superannuation negotiated through enterprise bargains will not affect the level of operating grant received by institutions.

I note with interest that the eight university shareholders of Open Learning Australia have agreed to share designed courses in such fields as psychology, accounting, business and communications. Professor Yerbury is reported as saying that these courses, which are essentially designed in on-line and multi-media format 'could substitute for, or augment, on-campus courses' and that 'this innovation would help to free up the time of academics who could devote more time to small-group tutorials or other pursuits agreed with their respective universities'. I applaud the initiative. But it leads to the question whether the culture of 'not-invented-here' is inhibiting fundamental efficiency and effectiveness improvements in collaborative curriculum design and delivery across the higher education sector. And if, as the West committee suggests, curriculum content, both 'no-frills' and sophisticated instructional design, becomes more readily available and tradeable through the Internet and, given the economies of scale, at relatively low cost, then the potential for efficiency gains will be further enhanced.

The ANU has seriously set about reducing its administrative overhead costs by liquidating several property assets, contracting-out various administrative services, linking with a finance group to overhaul its purchasing and accounts processes, and de-layering its administrative staffing. I appreciate that statistics can be subject to differences in university classification practices but they bear some scrutiny. In 1997, the share of general overhead staffing costs in universities ranged from a low of 13 per cent to a high of 33 per cent. The ANU's share was at the lower end of this range yet it has managed to save some $5 million in central administrative expenses. Some others would appear to have a fair way to go. Non-academic staff represent some 56 per cent of all staff of universities nationally, a substantial proportion of whom undertake administrative functions.

More generally, the publicly reported finance statistics of universities indicate that in 1996, the share of total expenditures accounted for by buildings, administration and other general institution services ranged from a low of 12 per cent to a high of

43 per cent. Snapshot comparisons can be misleading I know, especially where institutions are embarked on major works programmes. The high scores in 1996, however, were not simply correlated with such works. Nor were the high cost institutions exclusively multi-campus providers. The range is wide enough to warrant some further investigation. I am hoping that the study of university costs which we have underway in cooperation with the universities will shed light on overhead costs and provide the management information necessary for achieving cost reductions.

Student staff ratios also vary considerably across institutions within comparable academic organisational units. The range for humanities (excluding the small specialist providers and outriders in all fields) is from a low of 14:1 to a high of 25:1. For Social Science, the range is from 13:1 to 32:1. For Education, the range is from 13:1 to 24:1. For science the range is from 10:1 to 26:1. For Engineering, the range is from 9:1 to 26:1. And so it goes across the various fields. No doubt some will claim the data are inaccurate (though they are provided officially by the universities), that there are extraneous factors which constrain comparisons, and that the ratios are ambiguous indicators of the complex quality/efficiency trade-off. I must accept this latter point, but suggest this is the very kind of issue that should be addressed in enterprise bargaining negotiations linked to the strategic directions, quality improvement and marketing strategies of institutions.

There are several other areas in which the universities could learn about management efficiency from other sectors. The common-use bulk purchasing arrangements that local government bodies have with suppliers is just one example. While there is evidence of active collaboration among university libraries in the areas of inter-library loans, purchase of expensive research materials and consortium trial approaches to some electronic journal services, there is still plenty of scope for both national and international collaborative activity in several areas. I find it remarkable, for instance, that Australian universities, unlike their counterparts in other countries, have not managed to negotiate as a group with international publishing houses over rates for journal subscriptions and have not collaborated in the process of rationalising their subscriptions and library holdings. The Government is prepared to support a cooperative initiative in this regard on the condition that the participating universities agree to share collections and take steps to secure future access through their own resources.

There is considerable scope for efficiency improvement in the staff recruitment and promotion procedures of universities. The size of academic selection panels is notoriously large and the associated costs are high. Practices such as promotion rounds lead to academic staff being promoted when positions are not required at the higher level. This impedes management of staffing profiles and budgets. Some arrangements allow for heads of schools to be elected or appointed on rotation when they may have little interest or talent for management yet be responsible for multi-million dollar budgets. And, of course, there is the persistent problem of unwieldy and indecisive governance structures, addressed by the Hoare Committee in 1995 and referred to by the West committee as 'still relevant'.

All in all, the indications are that university management has room to improve the efficiency of its operations and use responsibly their autonomy. In this context the Government has no interest in either providing indexed grants to universities to cushion their enterprise bargains nor deregulating their fees simply to pass on their costs to students. The next round of enterprise bargaining should involve actual measures to reduce costs and increase productivity.

Undergraduate education as a foundation for lifelong learning

It is critical that undergraduate education is fully effective as a foundation for lifelong learning. I commend the West committee's effort to construct a statement of attributes, or learning outcomes, expected of first degree graduates. The committee expresses these in the following terms:

- *the capacity for critical, conceptual and reflective thinking in all aspects of intellectual and practical activity;*
- *technical competence and an understanding of the broad conceptual and theoretical elements of his or her fields of specialisation;*
- *intellectual openness and curiosity, and an appreciation of the interconnectedness, and areas of uncertainty, in current human knowledge;*
- *effective communication skills in all domains (reading, writing, speaking and listening);*
- *research, discovery and information retrieval skills and a general capacity to use information;*
- *multifaceted problem solving skills and the capacity for team work; and*
- *high ethical standards in personal and professional life, underpinned by a capacity for self-directed activity.*

No doubt debate will ensue over the best formulation of these desired attributes in order to capture the depth, breadth and creativity of higher education. It has taken some time to achieve broad agreement on the foundation skills we expect to be formed during the compulsory years of schooling and to set about ensuring they are achieved. Similarly, the definition of competency standards for vocational education and training has involved extensive consultation with industry, professional bodies and training providers, and now facilitates more effective, more mobile and more efficient provision.

The effort of the previous Government to force higher education into a rigid competency-based framework was properly resisted by the universities at the time on the grounds that it represented intrusion on their autonomy over curriculum matters, and would lead to a narrowing of educational experiences and stifle diversity. A comprehensive statement of the desired outcomes from undergraduate education must accommodate as yet unknown knowledge rapidly becoming accessible and, in the context of future unpredictability, give greater weight to the broad development of personal potential, integrative abilities and values than to the acquisition of specialised knowledge and skills.

Improving information to raise quality

As central controls are progressively relaxed and education providers have greater freedom and are encouraged to diversify their educational ways and means, it becomes important for informed consumer choice, public accountability and quality assurance for the expected outcomes of the initial years of tertiary education to be clarified. We should be capable of forming a common view on what we generally expect it means to have a degree, including the standards of attainment expected of graduates and their readiness for employment. This is a matter on which I will invite wide consultation.

The fundamental approach of the West committee, to put students at the centre of the educational process, has significant implications for curriculum, pedagogy and assessment. Some use the analogy of 'the student as client' or 'the student as customer' to convey the message that education providers need to be responsive to students by offering fitness for purpose and value for money. In this regard, it is simply not an adequate response to the diversity of higher education student populations to conceive of quality of provision as simply setting a high bar and regard as failures those who cannot immediately jump over it. High attrition rates are not a sign of high quality but rather of low value added. Universities have responsibilities, a duty of care, to those they admit. And the basic responsibility is to understand where the students are coming from, where they want to get to and how best to enable them to achieve their goals. That is what impresses me about the personalised access and study initiative of Victoria University of Technology.

Particular programmes of study in all universities should have their objectives specified in terms of intended learning outcomes, their educational content and learning methods outlined, and their assessment procedures explained, and these should be known by prospective students. Desirably, students should have sufficient information about intended outcomes, expectations about prerequisite knowledge and skills, and feedback on their progress in relation to those outcomes to make informed decisions on their study options.

In this regard, the Government welcomes and will provide support to a recent initiative of the Australian Technology Network (ATN) group of universities to articulate a set of generic capabilities which their graduates are expected to exhibit and which are designed to increase their employability. The ATN group will define graduate capabilities within discipline contexts, and will then review and revise curricula, teaching and learning methods and assessment procedures to reflect the intended capabilities. No doubt the ATN group will take advantage of this initiative to differentiate their offerings from other providers; the RMIT University arrangements with Morgan & Banks to provide direct employer feedback is a distinctive marketing advantage. The Government welcomes initiatives of universities or groups of universities to diversify their services.

More generally we are working to improve the availability of information about university offerings, capacities and performance in order better to inform student choice, facilitate performance improvement and meet public accountability requirements. My department will publish next month a major set of comparative institution-level indicators. We are commencing work to develop sets of indicators by field of study and I expect the first of those to be available this year.

The universities themselves need to provide better information about the quality of their offerings. The Government will not be taking an inspectorial approach to quality assurance, but for purposes of better informing student choice and assuring the Australian public and the international community of our higher education standards, we must improve quality reporting. Accordingly, I have directed my department to require each university to provide a Quality Assurance and Improvement Plan linked to its annual strategic plan. This is to provide assurance that institutions have in place and are applying internal quality management processes and can report on their progress. The model developed by Murdoch University is exemplary in this regard.

These plans should reflect the diversity of missions and varying educational approaches of the different universities. Each university will present its own indicators of quality. However, I am requiring that all institutions include the outcomes of the annual Graduate Destinations Survey and the results of the graduate satisfaction survey using the Course Experience Questionnaire. Each institution will also be required to report on the satisfaction of employers with its graduates. The Quality Assurance and Improvement Plans and associated performance indicators for all institutions will be published annually in a comparable format.

I also intend to call for expressions of interest from universities to participate in an international quality management benchmarking project. In addition, I will invite interested universities to modify, for Australian conditions, trial and benchmark the American Graduate Record Exam. This would provide valuable information on how our graduates and universities compare with other countries. It will help ensure all courses maintain a high standard. We need to be able to demonstrate that Australian graduates are internationally competitive. We also need direct outcomes measures, rather than intrusive process inspections, to satisfy the community, indeed the world, that different institutions taking varying approaches to teaching and learning can validly claim parity of esteem for the qualifications they award.

Concerns have been raised regarding the quality of research supervision for postgraduate students and continuing reliance on quantitative rather than qualitative measures for the allocation of resources for research training. Work is underway constructing a survey instrument to evaluate student satisfaction. I propose to have a symposium conducted, in cooperation with the Council of Australian Postgraduate Associations, to consider ways of assessing and improving the quality of research supervision.

The West committee has given us much to think about and discuss, both in regard to the longer-term and more immediately. I note the remarks of the OECD Review team about 'the vitality and dynamism of the Australian university system'. I am confident of the capacity and resilience of Australia's universities and am determined to ensure their continuing strength and vitality.

3.2 OECD thematic review of the first years of tertiary education: Main findings and conclusions

Professor Malcolm Skilbeck, former Deputy Director, Directorate for Education, Employment, Labour and Social Affairs, OECD

Australia's participation in the review

Thanks to the Higher Education Division, Australia has played an important and constructive role throughout the course of this international review of the first years of tertiary education. It was here in Sydney, almost five years ago, that DEET—as it then was—in association with the Centre for Continuing Education of the Australian National University hosted the conference *From Elite to Mass Higher Education* that laid the groundwork for the review. From that auspicious beginning, the OECD secretariat, with the endorsement of the Education Committee and an advisory committee of national representatives and experts, developed a discussion paper incorporating questions and a set of procedures inviting country participation.

Australia, quickly flagging its readiness to join in, was indeed the first of the twelve participating countries to be visited by a review team. Preparing the Australian background paper and arranging a highly satisfactory visit programme was the work of many hands to whom thanks are due. If I single out Dr Tom Karmel of DETYA's Higher Education Division, that is because he had both direct responsibility and, through his membership of the international advisory committee, has been a strong supporter and most helpful critical friend at all times.

We undertook this multi-country comparative review initially for two main reasons—in order to:

(i) identify and consider the major problems arising from the great waves of growth of recent decades, and

(ii) build on and develop earlier OECD work on the relations between higher education and employment.

Not surprisingly, as soon as we started to plan the work programme, other considerations also came into play and, as the review got under way, we fed them back into the design itself to produce a wide ranging survey. Thus, for example, we decided to give prominence to several issues that have featured in national debates and OECD discussions over recent years. These include the quality debate, the roles of the social partners in decision making, the relationship between central steering and local responsibility, cost sharing and new funding sources, innovations in teaching and institutional governance and management. We learnt as we went along and the scope of our inquiry continued to expand, as indeed did the number of countries wishing to participate.

The rationale for the review, the methods adopted, the names of reviewers and members of the international advisory committee, data both qualitative and quantitative, and our conclusions and recommendations are all detailed in a lengthy report, *Redefining Tertiary Education*, which the OECD is publishing. In addition, we prepared for each country a separate report which provides a country-specific account and appraisal. Most have been or will be published by the country concerned.

My brief, in this session, is to outline the major findings in a broad overview which will be further developed and elaborated in the specific topics that Alan Wagner and Elaine El-Khawas will be addressing.

Redefining the field

First, there is a story to tell in the language we have adopted. You will have noticed a change of terminology. Whereas five years ago in the *Elite to Mass* conference we were talking about higher education now, at least in the Education Committee of the OECD, the word is tertiary. This is not merely the substitution of one term for another. 'Tertiary' in a generic fashion signifies a stage, phase, level or type of education—beyond secondary and inclusive of a very wide range of teaching and learning, kinds of institutions, patterns of organisation and programmes and settings of study. Moreover, while entry to tertiary education is still typically through formal qualifications prepared for in upper secondary schools and colleges, recognition in several countries (Australia among them) is also given to experiential or non-formal learning and by universities to vocational tracks not hitherto accepted as academic equivalents.

'Higher education', which normally signifies universities and their equivalents, is on our definition one form or sector of tertiary education. But there are other forms and sectors of tertiary education as well, whether in so-called unitary or binary systems. The use of the term tertiary is not only designed to capture a wide spectrum, but also to achieve equal status for institutions and programmes of study with different missions, styles and outcomes. Relations between the sectors is seen as an issue to resolve in many countries, not least the division or the sharing of responsibilities. Australia's unified national system has perhaps resolved one set of relationship issues, but this only highlights the university–TAFE interface, to say nothing of diversification within the university sector itself.

Underpinning our use of the term 'tertiary' there is, accordingly, a programme, a value orientation, which includes a preference for more integrated and coherent policies, closer working relations across sectors and the dismantling of dysfunctional—not to say egregious—hierarchies. Need I add that this programme is contested and has led to fierce debates in some countries? One of our findings in the broad field of tertiary education across the sectors is that fragmentation and rivalry, or indifference, are more common than cooperation and that can apply to ministry structures as much as to institutions and to the agencies. Efforts are being made but our conclusion is that this is a policy area that needs more attention at the highest levels.

A change of some significance, occurring as the review proceeded, is the virtual abandonment of the terms 'mass' and 'elite'. Strong and visible at first as in the initial Sydney conference, they have faded away like the smile of the Cheshire Cat.

But of course their ghostly presence is still felt, is still with us. In the course of the review, we have encountered examples of aloofness and the assertion of traditional territorial prerogatives. But the language we are now using in our work is that of universalism, of inclusiveness or, to use a term favoured by the former New Zealand Minister of Education, seamlessness. That concept does not denote uniformity but coherence and functional inter-relationships. Rigid distinctions and sharply defined barriers need to give way to diversity and variety within a consistent policy and structural framework that encourages colloboration and mutual recognition.

But it seems to be very difficult to strike a satisfactory balance between consistency and uniformity on the one hand and diversity and variety on the other. Uniform and consistent policies are needed for example in funding, accountability and for the convertible currency of diplomas and degrees. But each institution and indeed faculty or department rightly declares its special, indeed unique, character. Again, some very interesting work is being done in the United Kingdom on the generic concept of graduateness or the attributes that might be expected of all graduates, and in the United States on the elements of general education appropriate to all students. Yet each discipline defines itself through a unique and distinctive conceptual apparatus, methodology, and links with its environment to create subcultures that transcend institutional boundaries and policies. Since these links are increasingly global in character, often involving a considerable diversity of actors and institutions, national and institutional steering policies and cross disciplinary endeavours become enmeshed in complex negotiations. The ability to manage complexity in a constantly changing environment is one of the key requirements of the tertiary education manager whether academic or administrative.

Our report conjures up a vision for the not so distant future—of tertiary education of some kind for all, an echo of the achievement of secondary education for all in the course of this century. This is a target which several of the OECD countries are well on the way to achieving. But it does not imply full-time education for everyone as a direct and immediate continuation of secondary schooling. Australia is one of a relatively small number of countries with strong and successful traditions of part-time and distance education to build on, as the movement towards universalism seeks to find new channels for access and delivery. Both the university and the TAFE sectors here have substantial experience and expertise to draw upon, including partnerships with employers, professional bodies and others. Such partnerships are yielding an increased variety of delivery modes which in turn call for quality control and transparency. An example is the move to develop national qualifications frameworks, as in New Zealand and Ireland. They raise the prospect of non-institutional providers or the delivery by providers of contracted courses which may be recognised even when they do not result in a full diploma, certificate or degree. Modularisation, work or home-based and part-time study which may by design extend over many years, seem to be necessary ingredients of inclusive and lifelong learning policies for tertiary education. Quite familiar and well accepted in some countries, in others they are seen as a disturbing and indeed unwelcome intrusion.

Addressing rising levels of demand

In the design of our review, and based on available data sources including previous OECD studies, we argued that demand, both individual and social, is the driving force behind the substantial expansion of tertiary education over the several decades leading to the present. Governments in all of the countries of the review have responded, with varying degrees of success, to the push from students and their families and the pull of economic and social change. While the old arguments about a limited pool of ability are still heard, theirs is a muffled voice. This is not to say that concern over such matters as student attainment levels at entry has diminished. It is a common complaint, but much less common is evidence of efforts to address the problems of transition from secondary to tertiary education. which become more acute as the systems expand. Whatever may be the shortcomings of secondary—and they need addressing—tertiary education enters into a responsibility in accepting students. Whatever may be the relevance of the pool of talent thesis to the university, it is a distraction when considering policies and programmes for the whole of tertiary education. Review teams were particularly impressed by institutions—in Denmark, the United Kingdom, Norway, Flanders and the United States for example, indeed in all countries—where there are arrangements that acknowledge and assist, rather than merely voices that deplore student weaknesses.

Demand, while the driving force, is, however, an insufficient basis for policy, not least because it contains contradictory elements and can lead to serious distortions. Thus, in Germany as in many other countries, individuals seek and have right of access to universities which are under enormous pressure, while the economy demands more graduates from the more technically and professionally oriented Fachhochschulen. In several countries, Norway for example, there are queues for access to popular courses; students repeat entry exams to gain higher scores. In Italy, a country which did not take part in the first cycle of the review, the term 'parking station' is applied to universities in which students remain enrolled for years due to weaknesses in the labour market or their own unwillingness or inability to perform effectively in it. This phenomenon is not confined to Italy. Where graduate unemployment levels are rising—and that means several countries in the review—or where there are other pressures which encourage more advanced studies, we may anticipate a growth in demand for parking stations and a further extension of the period of tutelage. There is a firm challenge arising to assess the quality, relevance and, indeed, the cost of time spent by students in unduly prolonged programmes leading to initial qualifications, and to explore in greater depth the 'parking station' and 'stopout phenomena'. Flexibility of study arrangements is essential to meet highly varied demand, but so too is efficiency of performance by students and institutions.

By contrast with the English language countries, it is common in many Continental European countries for graduates not to enter the labour market until mid to late twenties or early thirties. With early retirement and the approaching thirty-five hour week, the next generation of graduates is likely to enjoy much more leisure than we ever knew. But is their education preparing them for it? In the first place, many courses of study, especially in Continental countries, are coming to be regarded as too long and too unstructured with insufficient support for student learning. Several countries are endeavouring, but with mixed success, to introduce the well regulated sequence of bachelor, master, doctor. Apart from the United States, only

Sweden among the European countries participating in the review appears to have a fully functioning system of this sort, although some—France for example—have extensively restructured their study cycles.

The driving force for these changes appears to be more often a mixture of labour market and cost considerations rather than a broader view of changing lifestyle. Similarly, the widespread lack of academic interest in general, as distinct from highly specialised and professional education, suggests a certain lack of concern for the wide variety of roles that adults perform. If there is one exception to this generalisation it is college level education in the United States, a country which also demonstrates the value of a highly diversified and client-centred approach. Japan has retained two years of general education in the bachelor degree, a legacy of the post-war occupation, but there is considerable dissatisfaction with its quality. On the one hand, in the countries reviewed, there is widespread scepticism in academic circles about either the need for a continuation into tertiary education of a broad common core of studies or the ability to define anything worthwhile for everyone. But on the other hand, there is much talk about cross disciplinary or generic and transferable skills, not least for employment over the life cycle.

In considering rising levels and changing components of demand, together with institutional responses to them, we find ourselves challenged to project the likely scenarios for employment, leisure and lifestyle to say nothing of capacity and readiness to pay. These are strategic undertakings for institutions, the social partners, students and others and governments cannot stand on the sidelines. In the advice we offered to individual countries, we usually mentioned the potential value of widely representative advisory bodies and consultative procedures, of national as well as institutional measures of quality assurance and participatory forms of institutional governance. Again, these are quite familiar in some countries but not all, and there is considerable variability in the effectiveness of existing arrangements.

Investing in the future; facing present problems

Costs are, of course, a major consideration in increasing provision to meet growing demand. Current wisdom argues for an investment in the future approach as knowlege and its applications increasingly underpin social development, quality of life and economic growth. President Clinton's State of the Union address in 1996 forcibly presented the social and economic arguments and for the first time, enunciated a national policy of a minimum of two years of tertiary education for all. At a recent OECD seminar in Prague on the topic of diversifying tertiary education, the Finnish Minister of Education said that his government was upwardly revising its already high participation targets. This, we believe, is the path that all will eventually follow, but to do so, attention must be given not only to such obvious issues as who pays, but to such present widespread shortcomings as high failure and dropout rates (a serious but often neglected issue in every country), unduly prolonged periods of study (a feature of a number of Continental European systems), mismatches between student interests and capabilities and programmes of study, weak links with the labour market, inadequate provision of guidance and support for students experiencing difficulties, inflexibilities in course provision which artificially restrict access or result in poor study choices, and variable quality of course provision, teaching and student performance. Sometimes dismissed as excessive preoccupation with efficiency or bowing to utilitarian pressures, or pandering to student weaknesses, responsiveness to such issues in our view is a proper target for educational reform strategies.

Some countries and systems are better able or more ready than others to recognise and address these issues. In Germany, for example, we heard about the difficulty of decision making in a highly complex federal system with numerous committees and councils and legal constraints. Much, then, depends on an enhanced institutional capacity to diagnose problems and to act upon them. Our report is not at all pessimistic in this respect, providing many instances of significant innovation and intelligent response to the challenges. But there is no question that decisive action by government and national level agencies is a key in relation to many chronic difficulties. For example, the Danish 'taxi meter' system of financing to improve completion and success rates, the British emphasis on demonstrated performance in teaching, the efforts Japan is now making to foster a mentality of academic self appraisal, the US commitment to finding a place for everyone in a highly diverse and flexible system, the Swedish way of nurturing the development of university colleges through the major universities, and many more. While it can be invidious to name names, in our report we aimed to provide representative or striking examples and we were careful to avoid the trap of league tables or best buys. Yet it was evident to us that a readiness to evaluate frankly and to think creatively about students, teachers and their needs, together with diversification of provision with attractive alternatives are the first and perhaps the most important steps on this particular road to Damascus.

It is to be expected that tertiary education systems that have very substantially increased in scale, have a much more diverse clientele than ever before, are subject to increasing and frequently contradictory expectations from several quarters, and are subject to ever increasing resource constraints, exhibit many acute problems. While it was one objective of the review to identify these problems in the hope that publication and dissemination of findings would sharpen attention to them in policy making and institutional settings, our aim was equally to focus on successful adaptations and innovations.

A normative stance: service to clients, partnerships with stakeholders

In order to make our critique and to commend success we had to adopt a normative stance. That is not so common in OECD documents at least at the level of quite explicit criteria but we decided that provocation supported by argument and evidence is preferable to diplomatic niceties. Both the design and execution of the review and the culminating report were endorsed by the Education Committee representing all member governments and the advisory committee representing the twelve participating countries. So I feel comfortable in saying that this normative position is broadly consistent with OECD-wide tertiary education policy. Even if there are, quite naturally, differences of interpretation and emphasis and variable rates of change, as there are arguments over specific points, the directions we have charted in the report seem to us to reflect an emerging policy consensus.

Essentially our argument is that in moving towards universal participation in tertiary education of some kind or other, democratic societies will recognise the primacy of the attributes, interests, needs and expectations of the individual students. For this reason, we refer to the student as a client and think of the institution as a service provider setting the highest professional standards for itself—not only a model community but a model educator. The service in this instance is a high quality of relevant education at an affordable price. There are several major stakeholders with a significant interest in educational outcomes and often in processes as well and the institutions increasingly aim to provide a focus for satisfying these interests through a partnership model of educational provision and delivery. Of course institutions have other functions as well as educating at the initial tertiary level: research, graduate studies and specialised diplomas, consultancy, professional updating, developing regional and local economies, are among them. But we have taken the view that the educational needs of undergraduate students and their equivalents are high on the international education policy agenda and that it was reasonable to set them as a goal in our inquiry.

I must also mention the 1996 publication, *Lifelong Education for All*, the study of research, recently published under the title *University Research in Transition* and work currently proceeding, through another review, on transition to employment and to further education. Together these reports should provide comprehensive and complementary accounts from an OECD perspective of trends and issues in these related areas.

Mention has already been made of the student or client orientation we adopted. But in addition to primary clients, the students, there are also stakeholders, notably employers, since most graduates will either proceed to employment largely on the basis of their qualifications or already be in employment, and in any case the employment sector obviously requires highly trained personnel. However, employers have no monopoly, and there are broader community interests that can claim a stake in the processes as well as the outcomes of tertiary education. Government is manifestly a key actor whether as stakeholder, employer, paymaster or holding the ring.

I know this way of looking at things is quite familiar in Australia. In some respects it is much less so where, for example, governance is wholly a matter of staff and a sprinkling of students with no or at most only token representation of external interests on decision making bodies. Or where teaching is regarded as incidental to the main business of research and consultancy. Or where it is regarded as perfectly acceptable to fail a high proportion of students with no concern for what they might do next. It is not only students but the whole community that is increasingly affected by prevailing policies and practices in tertiary education, which is why we applauded the efforts to open the doors of the institutions, to introduce agreed systems of quality appraisal and accountability, to provide training for teachers and incentives for teaching, and to achieve more equitable and efficient ways of mobilising financial and human resources.

It is obvious that with the decline of the ideal—or the myth—of the Humboldtian community of detached scholars living in privileged monastic isolation, modern academic communities and their leaders must now serve many masters. There are many constituencies; initiative and entrepreneurship must be tempered by a recognition that there are limits to the authority and power of even the most innovative individuals. Academic resources and their applications are heavily constrained; they cannot be as readily mobilised and shifted as in the business world—and that may be just as well bearing in mind the disastrous consequences of the adventurism that recurs in the global economy. Educational changes of any substance usually have to be carefully and lengthily negotiated. Still, it is the business of leaders to lead even if, as we heard from one American university president, that meant weathering faculty votes of no confidence. So, lead where?

Conclusions

Without attempting a summary, I shall conclude by highlighting the trends and issues which predominate in this study, together with the policy messages that seemed to us to emerge most clearly:

> *Tertiary education has demonstrated a capacity to expand and diversify to meet the challenge of growth with several countries already well on the path to near universal participation. There have been substantial efficiency gains and many innovations are occurring in the design and delivery of educational programmes.*

There are good reasons to expect growth to continue and to foster it where it may be lagging.

Systems and institutions can expect to be under increasing challenge to adapt, innovate, adopt new strategies of teaching, and make greater use of communication and information technology resources; new balances will be needed between teaching, research, consultancy and community service with due recognition of high performance and greater attention to improved quality and relevance of studies as perceived by clients and stakeholders.

Inflexibility of provision and delivery of educational programmes needs to be systematically reduced to provide more open access; barriers especially for disadvantaged and low participating groups and queueing at the gate should be eliminated.

Improvements are needed in transition from secondary to tertiary education and in orientation, in guidance services and the use of them and in monitoring and assisting student progress.

A client and stakeholder orientation for tertiary education should govern both public policy and institutional practice; partnerships for policy-making, provision, finance and governance need to be extended.

In seeking efficiencies and greater diversity of response and provision within a coherent, well integrated framework, countries are likely to adopt a more functional and flexible approach to structural and organisational arrangements such as ladders of opportunity, cross-crediting, mutual recognition of qualifications, joint projects and less sharp divisions between types of institutions.

Growing concern over the quality and relevance of tertiary education and resource constraints argue both for quality assurance procedures and external accountability; this is compounded by evidence of high failure and dropout rates; more and better information on these phenomena and their causes is needed.

Tertiary education for breadth, versatility, adaptability, democratic participation and citizenship and personal values, over the life cycle, is receiving much less attention than is desirable due to a concentration on highly specialised and professional knowledge.

Leadership of a collegial kind combined with entrepreneurial qualities of a high order is required to steer, guide, stimulate and manage tertiary education and to mobilise additional resources.

Notwithstanding the demands—and attractions—of research and consultancy, the academic profession even in universities is still predominantly a teaching profession and this is entirely consistent with a student orientation; while academics generally have high levels of work satisfaction, good opportunities for self-directed activity and the expression and sharing of ideas, there is a widely perceived need to 'give more honour' to teaching, provide more training and professional advice and acknowledge fine performance in the mainstream of undergraduate or first years teaching.

3.3 Universal participation in higher education: Its educational effects

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Introduction

In many countries, higher education systems have developed and expanded to such an extent that 'universal' participation can be envisioned. The images are typically optimistic and forward-looking, speaking of learning that is lifelong, education that can be obtained at any time or any place, or opportunities that can be extended to all citizens. The rapidly developing use of electronic information technology extends the image even further, promising to allow learners to connect to worldwide resources and institutions to have a 'virtual' presence wherever learning is sought.

Educators and policy officials have been more cautious about what universal participation portends, aware of the practical difficulties that may arise in supporting universal participation in tertiary education. This paper addresses some of the academic, or educational, implications of this new level of participation, considered first for students and teachers and then for institutions and for the system as a whole. Many other relevant issues, especially in areas of costs and finance, are not covered in this paper.

The focus on so broad a concept as universal participation appropriately recalls Martin Trow's influential essay outlining the manifold effects of the transition from elite to mass levels of participation in higher education. In his essay, published by OECD in 1973, Trow emphasised the long-term effects on institutions and higher education systems of expanded participation. His was an analytic perspective that, if anything, stressed the problems associated with the transition rather than its hopeful visions. The essay was extremely prescient, outlining a fundamental transformation of higher education that would result from expanded participation, a transformation that has now played out in many countries throughout the world.

Part of the elegance of his contribution was its structural simplicity: from a change in a readily available statistic—the percentage of an age group entering tertiary education—he described transformational effects in the way that universities would be administered and governed, the characteristics and needs of students, and the nature of teaching and the role of academics.

Although his 1973 essay devoted attention mainly to the transition to 'mass' higher education, Trow also addressed the concept of universal participation. He defined it, again based on a threshold level of participation, as a stage in higher education's development that would be reached when half or more of an age-group enrolled

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for higher education. At this stage, he suggested, higher education would have a central role in society. Most young people could build their dreams around opportunities available to them for tertiary-level study, and adults could return for more education to fit with changes in their lives and interests. To serve such a large proportion of the population, higher education would grow in size and capacity, with educational institutions located throughout cities and regions so that instruction of some kind would be ‘in reach’ for most of a country’s citizens.

A closer look at universal participation

Twenty-five years later, Trow’s initial thoughts on universal participation can be extended. Following his lead, we can predict that the effects will be far-reaching and transformational. Also, we benefit from starting with demographic indicators to ground our thinking. Following Trow, the percentage of an age group that enters higher education is the core defining statistic.

Other, more telling statistics could be developed to assist our understanding of universal participation and to help us monitor its effects over time. Some indicators to add perspective might include, for example:

- Percentage of an age-group that enters higher education after high school
- Percentage of an age-group that enters higher education at some time
- Higher education enrolment as a percentage of the population
- Higher education graduates as a percentage of the population
- Higher education graduates as a percentage of the workforce
- Expenditures per student

These indicators, and changes in them over time, could broadly characterise the growing significance of higher education, and of the college-educated population, in the life of a country. Consider, for example, the implications for a country as the proportion of the workforce increases that has had experience with tertiary education. It can also be instructive to consider what it means for a community when increased proportions of its population is college-educated.

This ‘indicators’ approach can also offer insight into the effects of universal participation on higher education itself. This paper, therefore, is organised in terms of potential indicators for monitoring a country’s move toward universal participation. The purpose is twofold: to draw attention to important implications of universal participation for higher education and, also, to suggest that pertinent indicators be established to monitor its consequences. Indicators, used carefully, can help both to understand the changes taking place and to identify needed steps for addressing the new problems that arise.

Educational implications for students

For students, tertiary education under conditions of universal participation offers wide choice. There is greater opportunity because institutions of higher education have broadened their offerings and the variety of sites at which tertiary study can be undertaken. For students, this expansion can offer a dizzying array of choices. Consider, for instance, the situation of a young person in the United States who wishes to enrol for masters-level study in accounting. There are full-time programmes available, as well as part-time programmes. There are programmes organised entirely in evening classes, others that are organised around weekends, still others that offer most instruction by telecourses or over the Internet.

With so many choices, *more dispersed patterns of study* also increase. A student may interrupt his studies or find that a course best suited to his interests is available at another, nearby institution. These are not abstract possibilities. Higher education in the United States has offered enrolment flexibility for students to such an extent that evaluating and arranging credit transfer is a routine part of administrative operations at most public universities. In some large metropolitan areas, a noticeable number of students enrol at several institutions in the area in pursuit of a single degree. Students may enrol at one institution in one year, at another institution the following year, but then be back to the first institution at a still later time. Some students enrol at more than one institution during the same term.

These patterns of 'dispersed learning' are more likely to occur with older students and with part-time students, both of which are a larger presence under conditions of 'universal' participation in higher education. Such dispersed study patterns will definitely be a characteristic of electronic learning; students will readily participate in telecourses, email-based, or Internet-based courses, yet at some point will wish to assemble such courses to get recognition for the overall learning they reflect.

The trend toward *more dispersed patterns of study* can be monitored with statistical indicators. Thus, as the number of students and the number of study options increase, there is an increase also in:

- the number and percentage of students who interrupt their studies;
- the number and percentage of students who begin again (re-enrol); and
- the number and percentage of students who transfer between institutions.

Some of this dispersed study may involve enrolment in institutions in other countries; increasingly, it will include electronic delivery. This greater dispersion of study represents expanded opportunity for students. As should be apparent, however, it also represents greater complexity for both students and institutions in integrating the whole array of learning they accumulate. The challenges posed by electronic learning are bringing these issues into wider discussion lately but, in fact, they are more general issues, affected by the move toward universal levels of participation.

Universal participation also introduces *greater diversity to the learning experience* for students. A composite scenario suggests some of the experiences they have. Small seminars or classes are rare; much more likely, because efficiency is a concern, are course lectures attended by large numbers of students. They may be augmented by in-person or electronic discussion groups, where 10 to 15 students review lecture material and the course readings. In each setting, however, the opportunities for students to engage in thoughtful discussion are limited. Many of the students hold jobs or have other responsibilities calling for their time.

Many students today don't get to know many of their classmates, partly because they are of disparate ages and life situations, and partly because they may take only a few courses at the institution. Nor do they have a chance to meet or talk with the course lecturer. This may be the first course they've taken with this lecturer, and they may not see him again; even though the course is in their speciality area, the area has a very large enrolment and is staffed mainly by part-time instructors. Besides, the questions that students have aren't easily raised with the lecturer: some questions relate to concepts the lecturer assumes they have already encountered in earlier courses, but haven't; other questions are about some ways the course might relate to their job responsibilities, where the lecturer might not be helpful. And they'd rather avoid talking to the lecturer anyway because they might need to admit that, with the cross-pressures of their other responsibilities, they really hurried through preparation of that term paper, or didn't do much of the assigned reading. Distance learning or electronic delivery will add still further to this description, amplifying the elements of diversity, the possibilities for disconnection, and the prospects for gaps in learning.

Some additional indicators can be constructed to help monitor and assess the *greater diversity in student experiences* under conditions of universal participation. We might consider, for example, the percentage of students who:

- speak to or contact an instructor individually
- ask an instructor a question on course materials
- participate in focused discussions of course material
- speak to other students on course materials
- encounter course work they are not prepared for
- do not attend all classes
- do not learn important portions of the course material
- do not complete assignments
- cheat or take other short-cuts with the assignments

Undoubtedly, there are students that continue to have good educational experiences under optimal learning experiences. Greater diversity of student learning does imply, however, that poor learning experiences do take place and should be recognised. Indicators can show the extent to which sub-optimal experiences are developing.

Educational implications for teachers

Universal participation also changes the conditions under which academic staff carry out their teaching responsibilities. Many relevant external conditions could be considered here, including the prospect of more formalised employment relations as institutions become larger, but for present purposes the focus is on teaching conditions.

Following from what we've described as the realities for many students, the teacher encounters changed circumstances too. The more dispersed patterns of study have an aggregate effect that shows up in the classroom. From the teacher's perspective, students exhibit a *greater range in prior preparation, in level of effort and in mastery of what is taught*. These trends toward what instructors might call *'uneven' learning* can also be captured by indicators, possibly including the percentage of students who:

- have gaps in their prior preparation for the course
- have academic difficulty during the course

- do not complete assignments properly
- pass the course but have important gaps in learning
- need extra time to complete a course or degree programme

Instructors encounter these symptoms of *uneven learning* through an accumulation of individual cases. The general phenomenon might be better understood if indicators documented the greater range and diversity of students, and the greater range of student effort that instructors must deal with as part of their teaching responsibilities. Other indicators might document the greater amount of time that faculty consequently spend on students with academic difficulties, on students with gaps in learning, or on students needing adjustments in course deadlines. Here again, uses of electronic technology offer new teaching challenges and opportunities, but the prospect remains that instructors will encounter 'uneven' learning among electronic learners as well.

Instructors can also speak of other noticeable effects of universal levels of participation, including the more lively atmosphere created by the greater diversity of views brought to the classroom by students who vary in age, in work experience, and in other background experiences. But the conditions of teaching are changed, too, forcing instructors to confront *uneven learning* in ways that have not been adequately recognised and addressed by educators and policy officials.

Educational implications for institutions and systems of higher education

In the first transition—from elite to mass higher education—much of the challenge for higher education involved expansion and growth. For many educators and policy officials, it seemed to be an all-consuming endeavour to keep up with expansion and the complications it raised, with such continuing issues as planning for growth, increasing physical capacity, setting equitable admissions and financing policies, establishing differentiated roles among institutions, or achieving integration across institutions within a system.

As universal levels of participation are approached, institutions and systems of higher education increasingly face new issues. The more dispersed patterns of study and the greater diversity of learning experiences create, for example, a new imperative for coordinated record-keeping systems and policies. Under conditions of universal participation, institutions must devise record systems able to keep track of the greater percentage of students who:

- change study plans
- study under different scheduling arrangements
- study in a greater variety of learning sites
- transfer from one institution to another
- have studied in two, three or more institutions
- are currently enrolled in more than one institution
- have long gaps in their record of tertiary-level study
- have studied in other countries

The more dispersed pattern of study also will raise urgent questions about policies for *transferability of learning* from one setting to another. As long as only a few students transferred, they could be handled as 'special cases' or exceptions to policy. Where more frequent transfer occurred, institutions have sometimes developed suitable general policies, including inter-institutional agreements for accepting students. U.S. systems of credit transfer largely fit this pattern.

Under conditions of universal participation, however, as a larger proportion of students follow dispersed patterns of study, including widespread use of electronic learning opportunities, improved methods will be needed to allow *transferability of learning*. This will be a key defining characteristic of universal participation. Higher education will need to develop systems to allow transferability of learning with smooth transitions and equitable application of policies.

Mature conditions of universal participation will also pose important challenges to the credentialling role of higher education, especially to conventional assumptions about the *coherence and integrity of degree structures*. To a greater extent than generally acknowledged, most credentialling in higher education is based on recognition of the legitimacy and good reputation of specific academic institutions, and on tacit assumptions that are held with regard to the 'place' where students have completed an instructional programme.

As greater numbers of students take their learning in small doses and in different settings and modes of delivery, higher education will be forced to develop widely applicable rules for structuring coherent educational programmes. What variations in 'packaging' of learning can be allowed? Do we simply add the number of courses completed, at any number of institutions? Are there simple ways to ensure coherence, perhaps by requiring that a certain minimum amount of coursework be completed at the institution that grants the degree? Can exceptions be made for students whose circumstances make it difficult to enrol for this amount of time at only one institution? Under conditions of universal participation, large numbers of students have diverse circumstances. Patchwork solutions will no longer be sufficient. Clear and educationally sound policies are needed to establish what constitutes *coherence and integrity in degree study*.

The more dispersed patterns of study and greater diversity of student circumstances will put significant pressure on higher education to make better *assessment of student learning*. The sheer volume of students and the dispersion and diversity of their learning experiences cannot be supported by conventional assessment approaches, based mainly on the judgements and instructional philosophies of individual instructors. Better systems will be needed to evaluate student progress and to determine their proper placement in a course sequence, whether the student stays within one institution or needs to 'translate' what has been learned between institutions. A new metric will be necessary, a way to count and assess units or components of learning on the basis of systems that are educationally defensible, coherent and transparent, i.e., understood and applied in widely differing educational circumstances.

Still another effect of universal participation must be considered. How will academic institutions respond to the growing diversity of students? During the transition from elite to mass higher education, most institutions expanded and multiplied their programme offerings. In the United States, teachers' colleges not only became larger; they evolved into multipurpose comprehensive universities.

Technical institutes, too, expanded their role to offer a wide array of credit and non-credit study programmes. Most 'four-year' colleges broadened their offerings to provide postgraduate, usually master's-level courses of study.

Will this expansionary pattern and broadening of role continue to be the best response, under conditions of universal participation? Or are there downsides to expansion in higher education, in which economies of scale meet a limit when the range and complexity of transactions reach a certain level? These questions reflect an emerging debate among U.S. institutions on whether their mission should reflect a *broad or a narrow range of services.* Many large universities in the United States have begun to speak of the limits of growth, and the necessity of restricting the range of educational programmes they offer. At the same time, some of the most interesting new institutional approaches in recent years have involved targeting, where institutions made conscious choices to attract a certain market, to offer a certain area of study, or to limit themselves to a specific degree programme.

A contrast can be seen, then, between two extremes:

Anytime, Anyplace University	**Targeted University**
All interested students	Restricted admissions
All study fields and degree objectives	Limited study fields
All modes of learning	Limited geographic markets

These are extremes but reflect important tendencies for today and for the future. The growing feasibility of electronic delivery adds still further options for either a targeted or a broad approach to services.

Here as in other areas where institutions will face pressures for change as a country approaches universal participation, indicators may help monitor the direction and extent of change. Such indicators might track the percentage of institutions that:

- have systems to allow transferability of learning
- have systematic procedures for assessing student learning
- have explicit rules for safeguarding the coherence and integrity of degrees
- have either a broad or a targeted range of instructional services

A system-level response is also necessary, given the significant effects that universal participation will have on higher education. Many of the educational issues that have been identified will call for solutions that are consistent across all of higher education. Based on the remarks in this paper, six key challenges for policymakers can be identified:

- More complex student flows and more dispersed patterns of study must be accommodated
- Sophisticated yet flexible student-based record systems must be developed
- Learning must be assessed, in small units and for entire study programmes
- Degree programmes must be coherent, yet increasingly modular
- Teaching must be organised to meet more diverse functions
- Greater oversight and coordination will be needed as institutions become more differentiated

While academic leadership and participation are needed in determining the actual methods and solutions for each problem, policy officials will have responsibility for setting directions and ensuring adequate outcomes that serve the public interest. None of these challenges are easily resolved but all will require a marshalling of expertise and cooperation among all parties. On many of these issues, small-scale solutions and scholarly research are already available to suggest directions of response.

Universal participation: New conditions, new consequences

On several grounds, there is a basis for predicting that the transition from mass to 'universal' participation will have significant, transformative effects on higher education. Universal participation does not simply mean a further expansion of mass higher education. Instead, it marks a point where differences in degree lead to differences in kind, to distinctively different circumstances. Increases in *volume*, that is, the number and the proportion of an age-group that enrolls for higher education, is the initial source of this transformation. It creates, in turn, several other changes in the conditions that higher education faces, especially because of the more dispersed study patterns and greater diversity of student circumstances that emerges with increased participation. In short, universal participation can be expected to give an increased complexity to the transactions that occur between each student and institution.

Some very telling information could be derived from indicators that would show the number of different learning encounters a student has in completing one programme of study or, perhaps, the number of transactions at the tertiary level that an individual has over a lifetime. At one time, a typical student enrolled in one institution on a full-time basis; he or she completed the entire programme of study, without interruption, by taking the recommended sequence and scheduling of courses. As higher education systems reach the level of universal participation, increases in the volume of students and the volume and complexity of their transactions are so great that they create significantly new conditions for teaching, learning, and credentialling.

The consequences of this fundamental change for systems of higher education are equally substantial. New demands will be put on academic institutions and on policy officials alike. In terms of the educational issues that have been identified here, the most challenging may involve the efforts to develop ways to allow transferability of learning and to assess learning in units as well as in entire degree programmes. These are related issues that fundamentally challenge the way that academic programmes are structured today in most countries. Yet, too, they represent desirable directions of change if the full promise implied by 'universal' levels of participation is to be achieved. Learning must be assessed and translated across many settings as a nation's citizens depend on higher learning to help them achieve their goals at different periods of their lives.

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3.4 Response—Universal participation in higher education: Its educational effects

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I thank Professor El-Khawas very much for a paper which could well do with a full day—or even several days—of discussion. A number of issues have been raised here which are very important; issues we have not faced up to. Perhaps we have not reached the levels of universal participation that have been reached in the United States right now, but if the indicators are right, we will be facing these scenarios in the not-too-distant future.

Professor El-Khawas has presented to us the most significant issues facing educators and policy makers, as they and we grapple with the challenges of universal participation. She comes to us with the experience of a policy maker and a policy analyst and now, with the experience of being at the coal face, if you like, in the classroom as well. The synthesis that results has to be very valuable for the insights that she has shown here in identifying what we will have to face.

When Trow wrote his ground-breaking paper in 1973, he had identified the problems in the transition from what he called elite to mass higher education. I was very pleased when Professor Skilbeck said that we were moving away from the word 'elite' in this context. I am not too sure that we are. We still keep hearing about Trow's elite to mass higher education transition. For me, 'elite' conjures up the sort of top of the tree thing, the hierarchy, and the feeling that the elites are the very best. I do not think that when Trow wrote his paper in 1973 he was talking of the system in the UK as being of that kind. I would rather see exclusion—an exclusive system to universal participation—than transition; exclusion or exclusive meaning non-financial exclusion.

Given that the transition to mass higher education participation has occurred in most of the OECD countries—and in Australia we are on our way to universal participation as defined; that is, 50 per cent of the various age cohorts—Professor El-Khawas is arguing for the monitoring of the post-secondary system or the tertiary system by the use of indicators, to understand what is happening and to reduce and, if possible, eliminate the adverse effects. We will never get to that point, but knowledge is power—the power to try to identify the problems and see whether we can solve them. The use of indicators has had a variable history, but the sort of information that Professor El-Khawas is projecting here would be extremely valuable to us.

All Trow's predictions did not come true in all respects. The sort of structural changes he saw in the university system did not all eventuate. But many did. The system is offering choices to the student clients, if we can call them that. Originally the students actually paid the teachers. In the very earliest universities in Europe the teachers were chosen and paid by the students, so maybe we might get back to that again! But the students are being offered choices as never before—full-time, part-time, evening, weekend, Internet and so on. What Professor El-Khawas is arguing for is that these patterns of study must be accommodated.

One aspect of the scenario is not yet common here in Australia—that is, when students commence study at one institution, spend one or more years at another and finish at the original. In Australia we do not cooperate in this way particularly well. Our system is highly competitive and we do not cooperate well. I had an instance of this very recently when my institution was merging with a large community college. That community college had a programme going with a university in Victoria. As soon as the merger was announced, the other university immediately terminated the programme. That is not cooperation; that is something that was very regrettable in a way and it demonstrates to me that we are not quite ready for the sort of cooperation that Professor El-Khawas is talking about.

Perhaps in one area we are ready—this aspect is of particular interest to me and was mentioned in the West Report—and that is having our students spend some time in another country. We tend to be very insular in this country, and getting our students to go even from one State to another is difficult; getting them to go to another country is virtually impossible. We have programmes with Florence and Bologna, and we get our full quota of students coming in from those places; we get about one-tenth of the students we are supposed to send to them to go every year. There may be reasons for that, including the language problem, but we have a huge Italian community, yet we do not seem to be able to convince our students to take an opportunity that I would have given my right arm for when I was a student.

Concerning accommodation of dispersal patterns, it may be that we must begin to think of ourselves as brokers, as it were, providers of tertiary education. Hence the discussion and the mention in the Minister's speech about our personalised access programme. I initiated discussions back in 1996 about our becoming an open university. It was partly to do with conviction, and also partly to do with sheer policy imperatives. The Minister had already announced the fact that fee-paying would be allowed for Australian students. I thought that my university would have some difficulty competing with the big sandstone down the road and some of the others. I thought we would either have to restrict our entry dramatically and push up the entry standards or go the other way and open up access. We decided to open up access. That meant that we would have flexible entry.

The task force, which worked very hard and very enthusiastically, came down and enhanced my initial idea, which was essentially based upon a public university emulation of the Open University in Britain. What it came down to was flexible entry, offer of guaranteed places to those who had passed the Victorian Certificate of Education or were over 23, the emphasis being on recruiting people in rather than screening them out—inclusion rather than exclusion—comprehensive support, pastoral care and very full information being given to students even before they enrolled with us.

We established centres for commencing students on all our six campuses and these were the focal points for discussion with the students. We advertised the fact that we would form compacts with the students; we would talk about their general educational and vocational ambitions and how we might be able to help with particular programmes. The students then had a contract with us. If they performed to agreed levels they would be guaranteed entry to consequential programmes. I have to emphasise that Victoria University is a dual sector institution—it contains a community college as well as higher education. It goes from certificate to doctoral study and on July 1 we will absorb an enormous community college or TAFE institution called the Western Melbourne Institute of TAFE, which will enable students to choose a terrific range of options. That was a great blessing for which I thank the Victorian Government and Ian Allen!

We hope that we can improve the experience of learning of our students right from their very first day. The programme has been very successful. Our student numbers are up nearly 10 per cent on last year, against a trend which is about one per cent. So at this stage we are very happy about it.

With respect to the experience of learning, technology is sometimes seen as the great leveller. Poorly prepared students are able to recover ground. However, experience shows that it may also serve to increase the gap and, in fact, the better prepared students can proceed even faster. We have to realise that education is an interactive process and that technology should support education, not replace it. So what we can do to enhance the experience of learning for the majority that no longer experience it full-time in the cloisters is what we really should be discussing. What are we going to do about the experience of learning?

For the teachers the issues arising out of universal participation are, as Professor El-Khawas says, manifold. Of the greatest concern is the diversity in prior learning and maturity amongst the students. A little while ago, one of our intellectuals called Robert Mann, who was then the editor of the literary journal *Quadrant*, taught at what he called ‘a newish university’ in Melbourne’s north-east. He wrote of his experience in the university and of the alarmingly poor quality of the undergraduates. He divided them roughly into three groups. First, the minority. They know why they are at university; they are keen and intellectually curious. Second, those who are not curious about what they are studying, and appear to have chosen their courses at random. They experience momentary interest, take little pleasure in reading and are variable in their attendance. Third, those who after the first week or so begin to fall away. This group comprised 30 to 50 per cent.

Many of those in the categories that stayed on were nervous about essay writing—with very good reason. The essays were poor. It was not just that they contained endless misspellings, bizarre punctuation and idiosyncratic syntax; more, it was that their work was deeply disorganised and conceptually confused. He said that some pieces of work were extremely distressing to read.

Then he said, ‘As a university teacher I am always puzzled about their 12 years at school before they came to university. Their complete absence of basic writing and analytical skills has been no impediment to steady progress through the school system.’

I found on my bookshelf a book written some years ago under the auspices of the Society for Research in Higher Education in Britain. Leslie Wagner, now Vice-Chancellor of the University of Northumbria, said: ‘It is curious that, while in the USA the compensation for poor schooling and underachievement is sought in remedial programmes in high school and in the freshman year of college, in the UK—and we could add, in Australia—the major effort in this direction occurs some years later.’ This is something to contemplate. We are talking about tertiary education, but we seem to be ignoring the secondary part, which is the preparatory. Professor Skilbeck talked about universality going from primary to secondary to tertiary. Will it? That is the question I will pose.

The enormous tasks for the institutions in coping with universal participation cannot be underestimated. It cannot be dismissed by the academic community as it so often is. When we talk about administration and administrators, generally academics consider administrators to be a waste of time, money and space; yet without the administrators, universities would totally fall apart. Under the universal participation scheme this is a fortiori.

In one aspect of Professor El-Khawas's slides, we have been remarkably unsuccessful—that is, the whole process of prior learning and credit transfer. We have been almost a total failure in this. The AVCC must bear full responsibility for that.

Then we go on to the system of credentials. The question of standards looms over all our discussions about universal participation. I remember well the 'more means worse' arguments in Britain in the 1960s. I disagree with the claim that they have gone away; I don't think they have, it is just not politically correct to say that anymore. But the elitists still think it. Universal participation complicates the rather simple biases of those who are the elitists.

In her paper Professor El-Khawas says: 'To a greater extent than generally acknowledged, most credentialling depends on the place where the person got their degree.' I agree that it is to a great extent—I do think it is underestimated. Most of us around here are familiar with the TV programme *Yes, Minister* and we recall the episode where Sir Humphrey Appleby, the departmental Secretary, in response to the Prime Minister's latest courageous policy, said: 'Think, Prime Minister, of the effect on the universities—both of them!'

So the issue of what therefore constitutes a coherent and integral degree programme is one of the most serious problems that we have to face. I suspect that universal participation will be a potent force in breaking down the very visible prejudices in the access standards debate. One can observe much more diversity of delivery and emulation of the characteristics of the newer institutions by our most venerable institutions. When I saw that Oxford University was offering a Master of Studies which, in a sense is a Master of Miscellaneous Studies, I thought the millennium had come early!

The central theme that has been advanced by Professor El-Khawas is that clear, educationally sound policies are needed, first, to establish what constitutes a coherent and integral degree of appropriate standard and who is to set these standards; and, secondly, better assessment of student learning. In Professor El-Khawas's paper, she says that the judgement of individuals, based on their instructional philosophies, can no longer be supported. That is a radical thing to say. What is going to happen to academic freedom? If we are going to say that the individual judgements of our academics are no longer acceptable for setting the standards of their students, that is a very radical concept and I hope it is one that people will pick up.

Moving from there, do we need to consider common syllabuses? This is another attack on academic freedom. I, as a chemistry student at Trinity College, Dublin, back in the 1960s, was always rather bemused by the fact that when I talked to colleagues in England, I found that the chemistry subjects they were doing were absolutely different. So how was it that my degree and their degrees were of the same quality and standards when the knowledge in them was so bitty?

Do we need to consider franchising of courses? That is another question. Then there is the issue of diversity of institutions. Professor El-Khawas has raised an issue here that we have barely considered—that is, that institutions might adopt niche areas and restrict themselves to those. Those of us—and vice-chancellors are the worst—who run the expansionary trail never think of winding anything down. We constantly want to keep increasing the range of activities that we go into, rather than restricting them. Professor El-Khawas is talking about narrowing the range, getting a niche, and that is very important.

She has spoken of the transition of the teachers' colleges and technical institutes into comprehensive universities and the four-year colleges doing postgraduate work with calls for institutional characteristics to be documented. I think that is extremely important. I draw to Professor El-Khawas's attention the system in Victoria where four universities, including my own, have major community college or TAFE elements in them—50/50, as it will be in my case, come 1 July. One venerable institution has a TAFE element in it, but it keeps it at arms' length as a company; it does not actually allow it into the hallowed halls! But this is an area where Victoria has led the way and something that is worthy of discussion because I am not sure that that system exists in the United States, or anywhere else.

My final point is: where are we going from here? I think that is also what Professor El-Khawas is asking us. Are we going to allow the transition to universal participation to take place unchecked and unchallenged? Are we going to question its role in the economies of the OECD nations as a universal good?

In 1993, as Professor Skilbeck mentioned, there was a conference here in Sydney called *The Transition from Elite to Mass Higher Education*. Professor El-Khawas attended at that time. Meredith Doig, from CRA, which is one of our big mineral companies—I notice there isn't anyone here from the private sector today—quoted Drucker at the very end of her speech. She said: 'What Drucker says is that we need to define the task. What is it that we are trying to accomplish? We have to concentrate the work, cut out the waste. We have to define performance. What are we paying for here? What value are we adding? Could it be added in a different and possibly less expensive way?'

A colleague of mine attended a UNESCO conference in Melbourne just a few weeks ago on education in the 21st century. The Ministers for Higher Education from Syria and Jordan were there. They expressed concerns that demand for higher education was so strong that few students in their countries wanted to study at the technical and further education level, yet their economies were in desperate need of skilled tradespeople. This could be echoed in other countries. I leave with the final question: 'Is it unstoppable, this movement towards universal participation in tertiary education?'

3.5 The case for a conceptually coherent tertiary education sector

Professor J G Wallace, Swinburne University of Technology, Melbourne, Australia

A title more consistent with the views to be expressed would be *Coherence, Vested Interest, Rationality and Australian Tertiary Education*. The Oxford English Dictionary defines 'coherence' as 'harmonious connection of the several parts of a system so that the whole hangs together.' On this basis, coherence is conspicuous by its absence from the current Australian tertiary education scene. In contrast, it is characterised by rampant sectoral and institutional vested interest evidenced in strenuous efforts to defend and expand territory, accompanied by attempts to enlist the support of politicians and stakeholders. As the OECD Review points out, this situation is not without precedent. Establishment of the Unified National System:

was preceded by a long period of ambivalence, uncertainty and disfunctionality in relations between the advanced education and university sectors, their roles, funding and operations. Although the issue had obvious administrative, financial, management and other operational dimensions, perhaps of overriding importance was the cultural issue of 'different and unequal'. It had become impossible, in the democratic climate of the country, to sustain two Commonwealth-funded, parallel systems of higher education when in status terms the one could not effectively compete with the other. There is still, of course, the parallel tertiary (and part sub-tertiary) system of Technical and Further Education (TAFE), but in the period under review the issues arising in the advanced education and university sector had scarcely begun to affect TAFE. That is not to say that some of these issues are not now beginning to emerge in that sector. (p.9)

In the period since the review, the range of issues relating to the TAFE/universities interface has clarified and expanded, and now increasingly resembles the situation presented by the binary system.

The sense of *deja vu* extends to repetition in the current situation of the overriding importance of the cultural issue of 'different and unequal'. Inequality produces impulsion to remove sectoral differences, while vested interest powers pursuit of the conflicting goal of preserving distinctions.

Convergence

Underlying the complex web of intersectoral and interinstitutional relationships, there is a clear tendency towards convergence between higher education and vocational education. Convergence is being driven by the trend towards greater complexity in technical occupations, which in turn is driven by the increasing sophistication of technology involved in so many industries. Consequently, the levels of skills required in many technical occupations are tending to become more advanced.

At the same time, the need for generic skills or key competencies has also become evident in all occupations, and therefore there is pressure for TAFE programmes to become less technical and more generic. Simultaneously, there is also pressure for university programmes to impart more 'vocational' skills and be less generic than many have been in the past.

In the future, students should, as a matter of course, be able to undertake a mix of university-style generalist subjects and TAFE-style specific vocational modules. In this context it will become increasingly restrictive to confine students to institutions which offer only university or only TAFE programmes. Both university and TAFE programmes will become less distinct than they have been in the past, and will have both generalist and vocational characteristics.

Many in the TAFE sector argue that separation between the TAFE sector and the university sector should be preserved. It is maintained that TAFE institutes have an independent educational culture which values practicality and a 'hands on' approach, based on competency standards, as compared with the emphasis on knowledge, theory and research in higher education. While there is truth in these claims, they are complicated by the tendency within the TAFE sector itself to develop towards the more advanced levels, for example, 80 per cent of TAFE programmes in the Eastern Region of Melbourne are at the middle levels and above. Many TAFE institutes across the country have developed Advanced Diplomas which entail three years of study and are coming close to filling the same educational niche as degrees, historically considered to be the preserve of universities. Indeed, TAFE institutes in South Australia have been given the right to mount degree courses.

The lines of separation are blurred further as a result of the existence of universities such as Swinburne, which have evolved from Institutes of Technology. These universities themselves have a tradition of practical, applied education. While the curricula of the higher education divisions at Swinburne have been comprehensively reworked since the attainment of university status in 1992 in order to provide more advanced learning, we have remained true to our tradition and retained a profile centred around applied and vocational fields in the sciences, engineering, business, social sciences and the performing arts.

The distinctive nature of university education rests to a large extent on the pervasive influence of research. Before the abolition of the binary system, degree courses were offered both by universities and by the colleges of advanced education and institutes of technology. There was considerable overlap between the sectors. The main distinction between the two was the fact that only universities were funded to undertake research and, consequently, research was a major part of the profile of the universities, but not the colleges and institutes. On the abolition of the binary system, the colleges and institutes became universities or were merged with universities and set about developing a research culture, with some success.

It is not crucial, however, that undergraduates are exposed to this research culture at the outset of their university experience. For the first year or two, they need to be inducted into the knowledge base and thought modes of their fields. This makes it feasible for the early years of undergraduate education to be undertaken outside the universities. Consequently there could well be more overlap between university education and TAFE education.

Can the conflicting forces of convergence and differentiation in tertiary education be resolved in a manner consistent with the reasonable expectations of the many and various stakeholders? The remainder of this paper will seek to render this question other than rhetorical. In attempting to provide an answer, we will seek to comply with the definition of coherence and to maintain a rational and objective perspective. The presentation is, necessarily, a brief sketch. A much more extended account, including detailed discussion of the vexed issue of funding the system, is provided elsewhere (Wallace, Tomlinson and Sharma, 1977; Wallace and Tomlinson, 1997).

A conceptually coherent tertiary education sector

In the future, students should, as a matter of course, be able to undertake a mix of university-style generalist subjects and TAFE-style specific vocational modules. It will become increasingly restrictive to confine students to institutions which offer only university or only TAFE programmes. The objective of government planning should be to make available to each student a comprehensive suite of tertiary educational programmes which fulfils their needs and requirements. Sector boundaries have little relevance to students or educational value and can stand in the way of this objective. Some of their requirements may be met by TAFE programmes or units and some by University-level programmes or units. If these components are totally uncoordinated, frustration and inefficiency result.

If student requirements are to be met, a tertiary educational sequence based on clear, fundamental principles must replace the dominance of sectoral interests. Individual institutions should be free to determine their participation profile within the constraints of the sequence.

The foundation of the sequence is a period devoted to the acquisition of generic competencies and/or technical skills. The focus of the providers, who would include TAFE institutes, private providers and universities, would be on learning and teaching. It is in the first two years of tertiary study that school leaver or mature students are most in need of support from good teachers and from a supportive learning environment. Currently, the contrast between the very supportive environment of school and first year of university, where students find themselves left to their own devices in a large impersonal institution is too great. The proposal provides an intermediate stage, which would have many of the advantages of the community college sector in the US, including the community focus and the concentration on teaching and learning as opposed to research.

The positive aspects of the community college model could be replicated here in Australia without the need to create a whole new class of institutions.

The standard qualification for successful completion of this first stage would be an ‘associate degree’. This term has become emotive for reasons which have nothing to do with appropriateness. TAFE institutes view its current use by universities as unfair competition in marketing sub-degree qualifications. Universities oppose its use by the TAFE sector as a significant step towards the conferring of first degrees. Dispassionate evaluation against an international background reveals its considerable merits.

The second stage of the sequence leads to an undergraduate degree. The distinctive nature of university education rests to a large extent on the pervasive influence of research. The presence of the research culture is a crucial factor. At undergraduate level, the exposure of students to the thinking of teachers who are engaged in research which is extending the frontiers of knowledge produces a unique experience. If degrees are to retain their meaning, it is essential that the later stage of a degree course should be experienced in a university and that all universities should conduct research.

The sequence which we have sketched would, in traditional, duration-based parlance, be classified as a 2+2 model. Universities would accept any associate degree in a relevant field as qualification for entry into a degree programme. This entails granting the equivalent of two years' block credit in a four-year programme. A global approach finesses the problems of reconciling competency and non-competency based systems.

In the interests of completeness, it should be stated that in the proposed sequence programmes for entry into the professions would be entirely postgraduate.

Some scenarios

The proposed system would allow considerable differentiation to develop, as institutions responded differently to the opportunities created by it. Some examples follow of how different types of institution might develop.

A large metropolitan research university might see an opportunity to move towards a more advanced undergraduate and postgraduate profile of activities. Such universities might decide to discontinue teaching first and second year programmes altogether, and swap these places for advanced undergraduate and postgraduate places. Large universities, however, would be better placed than other institutions to offer programmes in certain capital-intensive fields such as engineering and so might be best placed to offer all four years in such fields. They would also continue to offer a comprehensive array of postgraduate courses including fields such as law and medicine.

A small or medium-sized regional university would be the only higher education institution servicing the surrounding community. Such a university would want to provide the full undergraduate programme in many areas. Student from regional areas wanting to study engineering, law, medicine and so on could complete their introductory years at the regional university, and then transfer to a metropolitan university for the professional years and for postgraduate study in these disciplines.

A university of technology would be faced with a number of options. As an institution specialising in technological and applied disciplines, it might want to continue offering the full four-year programme in fields such as applied science. In other areas, it could choose whether to offer the associate degree or not, depending on its chosen mission. It might choose to focus on the second stage of the undergraduate programme and postgraduate courses depending on its track record. In the case of an intersectoral technological university, the associate degree could be offered by the TAFE division. The students could then articulate into the degree programme in the higher education division of the same institution, or another institution.

It is likely that many TAFE institutes would be interested in offering a broader range of associate degrees. They would already have staff capable of developing curricula. They would be able to offer humanities and social science associate degrees alongside their traditional technical training and further education courses without making a radical departure from their missions.

An approved private provider could offer the full spectrum of Associate Degrees or could specialise in the provision of humanities and social science Associate Degree programmes, and could possibly develop curricula in association with a university.

A senior secondary college would not find it hard to extend its mission to include the Associate Degree level, particularly with a humanities and social science emphasis, again possibly developing curricula in association with a university.

It will be seen from the analysis above that a likely effect of the introduction of the proposed system would be an increase in differentiation. Some universities, for example, would be able to fulfill their desired mission of increasing their emphasis on research while other would combine research with a focus on first-class undergraduate teaching. The system would produce differentiation but institutions would be free to make their own choices.

'Glue' in the system

It will be recalled that the definition of 'coherence' entailed not only harmonious connection of the parts of a system but that 'the whole hangs together'. We will conclude by considering two aspects relevant to the process of 'hanging together'.

The profound lack of coherence and integration in the tertiary education system should be of concern to government. The Australian Qualifications Framework was introduced as a method of rationalising the situation but has been grossly handicapped by vested interests. In order to make sense of the current situation or the proposed new system, the Commonwealth should, as a matter of urgency, negotiate with the States a full takeover of legislative and financial responsibility for the entire tertiary system. Current signs suggest that this endeavour would attract considerable political and bureaucratic support in Canberra but the present general state of Commonwealth-States relations does not appear to be propitious.

It is significant that the National Commission on Higher Education in South Africa, faced with a 'binary system' of universities and technikons, recommended that 'Higher Education in South Africa must be conceptualised, planned, governed and funded as a single coordinated system' (NCHE 1996 Section 6.1.3).

The Commonwealth could reserve degrees for the universities and lead the TAFE system towards adopting the associate degree as the standard qualification for a two-year programme. TAFE institutes would offer vocational and competency-based associate degrees in technical fields and, in addition, more broadly-based associate degrees in the humanities and social sciences. They would still offer certificates and other vocational qualifications below the current diploma level.

A second source of a contribution to the process of 'hanging together' is regionalisation. As a planning unit, a region is large enough to enable truly strategic planning, and discrete enough to be coherent. Institutions catering for a regional market can achieve critical mass and economies of scale, and relate to a discrete set of client groups.

Governments need to ensure that there is comprehensive provision of education and training across each region, comprehensive in terms of industry needs, sectors and education and training levels. This comprehensive planning approach should take in not only tertiary education, but systematic links between tertiary institutions and secondary schools to facilitate inter-sectoral programmes and smooth articulation between school and tertiary education.

One response to these imperatives is the creation of lead institutions in each region, which can be charged with the principal responsibility for the provision of education and training across the region and across the levels. While there are arguments for the persistence of some mono-sectoral institutions, large inter-sectoral institutions with campuses across a region are best suited to play this role. They are well placed to:

- realign programme provision to address local and regional needs, including both those of the community and industry;
- undertake the necessary programme rationalisations in areas of duplication;
- strengthen management capacity;
- rationalise corporate services;
- integrate and rationalise existing information technology infrastructure to take advantage of new technological developments;
- build inclusive partnerships and relationships with all stakeholders to ensure enhanced delivery of tertiary education to the region; and
- provide a seamless range of education services as a ‘one-stop shop’.

The importance of the regional role of higher education institutions has been recognised in the Dearing Report into higher eduction in the United Kingdom. Dearing commissioned a special report by Robson, Drake and Deas, who highlight the urgency of developing the skills base of regional workforces and capitalising on the innovations which can derive from university research. They report strongly held views that there could be benefits from greater local coordination in teaching as well as some aspects of research. They do not recommend adoption of full integration of university and TAFE-level colleges across-the-board, on the grounds that this might distort the mission of the UK TAFE-level colleges. Instead they recommend the establishment of a fund to support and encourage regional initiatives in sharing of resources and establishment of new courses with a regional focus. They also recommend that human resource development strategies should be developed by regional stakeholders which would include audits of existing provision and of gaps in provision compared with regional needs, and plans for collaboration between universities and TAFE-level colleges. Australian examples of regional arrangements aimed at enhancing collaboration are the tri-sectoral situations at Coffs Harbor and the developing Nirimba Education Precinct.

Postscript

The current state of tertiary education in Australia is inherently unstable. The need for a rational solution in the form of a conceptually coherent tertiary education sector is incontestable. Does the collective will exist among the stakeholders to concert and achieve the necessary change in the face of politicisation and vested interest? This question must remain rhetorical.

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3.6 Response—The case for a conceptually coherent tertiary education sector

Dr Ian Allen, Deputy Secretary, Office of the Secretary and Office of Higher Education, Education Victoria, Australia

I will keep this brief, because I think Professor Wallace's comments have been very provocative and we will need a chance to talk them through. I wish to comment very briefly on some of the main proposals he has made and add a few comments of my own. Professor Wallace started with a comment on the OECD report when he talked about our emergence from the advanced education era, where we had a scheme of advanced education colleges and universities existing side by side. He drew some parallels between that situation and the situation that we are moving into. We have commonly used the phrase 'equal but different'; but, as Iain said, it was never equal. In fact it was more imitative than different; and increasingly similar but with a status and funding differentiation which made it not work as well as it might have done.

I am probably less critical than some—possibly because I was part of that system for a while—and I think that model served Australia very well through a period of 15 years or so, at a time when higher education was needed on a wider basis. It gave the capacity to provide programmes to a much wider group of people than might otherwise have been the case. There seems to be a consensus that that particular model has had its day and there is some reluctance to move back into it by default. That is a concern, and is fairly relevant to some of the issues we are dealing with now.

Professor Wallace talked about convergence and coherence. His definition of 'coherence' was 'the harmonious connection of several parts of a system so that the whole thing hangs together'. It seems to me that some of the necessary prerequisites of that are to be clear about what those parts of the system are. If we are not clear about that, then we cannot bring them together in a coherent and systematic way. One of our biggest problems is that we are not clear about the nature, function and purpose of those parts. That is despite the work of the Australian Qualification System and, despite attempts by a number of people to define what it is that we do in the higher education sector, what it is that we do in the vocational education and training sector and what the differences and similarities are. Until we can get some clarity and agreement on those major dimensions, it will be extremely difficult to bring things together in a complementary and coherent way that goes beyond jurisdictional disputes and so on.

The comments on convergence are also very significant. We tend to think in static terms. The change in the skill profile of various occupations and professions is very dramatic and rapid. Whatever system we have has to meet that circumstance, but it also has to be capable of evolving and changing with those very rapid changes. Auto mechanics are now really electronic technicians and we can follow that model right through. I can remember having discussions about radical changes in the printing industry. This means that radically different approaches to printing training are necessary. So the whole model of the employment profile that we are servicing has changed, is changing and will continue to change very quickly. Again, the system that we have has to be capable of meeting those changed circumstances, adapting to them and, in fact, being ahead of the game so that the education and training that is being provided is in place when the employment needs are there.

Several people have commented on the spurious distinction between vocational and non-vocational. Of course, universities have always been largely vocational. But we have had an approach to the nature of vocational training in universities which has had a particular philosophy behind it. Given the change in the nature of the professions, and the evolving nature of that, I think that is one of the things that we should throw into question. Really, on both sides of the divide—between vocational education and training as we use it and higher education as we refer to it—there are changes. The creative problem solving, the application of research techniques that might be used by, say, a psychologist or a doctor or an engineer, are really not all that different from the creative problem-solving skills that are now increasingly needed across a whole range of professions. So I think it needs to be rethought.

Professor Wallace spoke about a 2+2 model, effectively with preliminary tertiary education provided in a number of alternative ways by different sorts of institutions. That kind of thing does work and it has been working for a long time in some other places. There is no question about the capacity for that to happen or the possibility of its happening. It seems to have some intriguing potential benefits. It would make it potentially less expensive to meet the needs of a wider range of students; it would make it possible to provide access more widely on a geographic basis so that accessibility and so on could be improved.

There are also some other reasons that could come in behind that model. We have a mismatch in student aspirations and vocational outcomes. We have large percentages of students wanting to be doctors or lawyers; they cannot get into those courses and there is not room for them in those professions anyway. Perhaps by extending the preliminary form of tertiary education, moving the levels of professional training further along, we could help to sort out that pressure point and make it easier for students not to have to give up on their aspirations but to develop an alternative, to defer those decisions and make things better.

For a variety of reasons—economic, social and cultural—we are extending the age of economic dependence. It may be that a form of education at tertiary level that is closer to home, more accessible and more nurturing could help in that circumstance. There are a number of pluses.

But there are also some question marks. I wonder if there is a genuine legitimate difference between the nature of higher education in universities and the nature of vocational education and training, as it is offered in the VET institutes. Is it the case that that should come into play after two more years of tertiary education? I do not know. I do not know the answer to the first question either. But it is something that we need to look at. If there is a legitimate and important distinction, at what point should that distinction come into play?

If there is to be something like a 2+2 model, it seems to me that that does not necessarily solve the status creep that previously pushed the move away from our advanced education system. We would still have the status aspirations of institutions and we may simply defer that status creep of institutions for a couple more years, but not remove it. If we are to have in the first two years a different kind of education and training provision that Professor Wallace was describing—that seems to be quite attractive—we would have to be very deliberate and have genuine acceptance of the nature of that education and training or it would not work. All the other factors that are present would still be in play. The question is whether we can achieve that.

While that model is attractive—and there are some conditions attached to making it work—I also have some questions about it. I wonder whether the extra time at the front end of professional careers is the best way to go—to push the professional training along for a couple more years may or may not be the sensible thing to do. It may be better to have people start those professional careers and then come back. I wonder about the cost of that. We have a concern about access in terms of covering and providing programmes for large numbers of people. We are not necessarily adding time because there is a trend towards longer programmes anyway, but if we are to add years of training, there is a cost implication, and I wonder whether we are ready for that. I also wonder whether the clear distinction between the nature of what is offered in the first two years as described by Professor Wallace is sustainable in the light of our history of status creep and imitativeness in tertiary education that has been part of our history.

I would make just one comment on Professor Wallace's point about the glue, but without going to the heart of the matter. If we are to get a clear set of distinctions, coherence and clarity across our tertiary education system, we need to get agreement and consensus with all the players working together towards a common goal. That will take a lot of talking, a lot of thinking, a lot of redefining of positions and a lot of challenging of traditional ideas. I do not believe that that necessarily means putting all of tertiary education across to the Commonwealth—although that has some attractiveness too! If we extend Professor Wallace's chart, with the Australian Qualifications Framework qualifications, we find that the bottom part of that chart has another set of institutions that are part of the education system as well. The coherence and complementarity that we need in the education system includes not only tertiary education, but also the whole of the education system and we need to get that whole bag together, not just a component of it.

There are some political realities in all this, but the approach that I would prefer is that we have more genuine and clearer joint planning arrangements and cooperation across all elements of the education system and that we work very hard to make that operate effectively.

3.7 Students at the centre of the education paradigm: Changing patterns of demand

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A key influence on tertiary education is demand, both individual and social. Viewed from the learner's perspective, tertiary education is a desired and 'profitable' activity and it should be no surprise that increasing proportions from each generation are or will be participating. With growth and high volume participation comes diversity in the student profile, and a new need on the part of tertiary education to respond to the diverse backgrounds, interests and needs in order to improve the likelihood of success—in other words, to put students at the centre of the education paradigm.

If the orientation is clear, what this means in practice is still being worked out. The challenge is partly to understand the nature of the changing patterns of demand. The demand for tertiary education derives from several sources—personal, social and economic in origin. While all need to be taken into account, the nature of broader economic restructuring underway across the area of the OECD and associated changes in employment prospects and emerging career paths well illustrate dynamic—and important—forces at play.

These forces (and others) affect the profiles of those who will be—or will wish to—participate in tertiary education, what they seek and why. This paper provides a broad review of the forces at play, how they affect the volume and nature of demand and how tertiary education now responds to the demand. A conclusion of the paper is that the driving force of demand and large volume participation increases the need for tertiary education institutions, programmes and teachers to be pro-active in shaping and supporting the the learning experiences of students.

A labour market perspective on the demand for tertiary education

Redefining Tertiary Education (OECD 1998), the comparative report of the OECD's thematic review of the first years of tertiary education, identifies the sources of demand as rising rates of secondary school completion (in France, Denmark and Australia, for example); rising aspirations and wealth (as in Portugal); and underlying changes in national economies arising from a range of broad and deep developments relevant in a wide range of national contexts. These broadly encompass the 'push' and 'pull' factors described by Professor Malcolm Skilbeck in his presentation to this seminar. As he argues, the factors imply further growth in tertiary education participation which raises new questions for programmes, teaching and learning at this level.

An important 'pull' factor is the demand coming from the labour market and economy. Some indications of key developments in this area are provided by the OECD *Jobs Study* (OECD 1994, and its follow-ups), a continuous, broadly-based examination of the performance of national economies through the lens of employment. The *Jobs Study* was launched in part to assess the long term increase in unemployment and possible policy approaches to improve employment. It is noteworthy that *Jobs Study* analyses draw attention to technological change and growing competititon—both domestic and international—in product and service markets as two key underlying developments affecting national economies. Although the precise links to economic performance are complex and still evolving, the evidence marshalled by the OECD supports the view that these underlying forces are driving significant changes in the composition and nature of economic activity. Among others, the analyses led the OECD to conclude that 'the countries and regions most likely to flourish under [present and future conditions will be] those with relatively dense knowledge-intensive networks of private firms and public institutions.' The operative words here are 'knowledge-intensive' and 'networks'.

There is much more to be said about this, but for the purposes of this paper, the point to note is that the OECD *Jobs Study* and its follow-ups as well as more recent work on *Human Capital Investment—An International Comparison* (OECD 1998a) are giving particular attention to the implications for education and learning arising out of the need for restructuring, flexibility and adaptability in the knowledge-based economies and societies in which we will work and live. The nature of the changes already are reflected to some extent in employment and career patterns; these have been noted in the OECD Education Committee's work in the early 1990s on graduate employment (OECD 1993), and they were taken up at the 1993 Australia/OECD conference *The Transition From Elite to Mass Higher Education* (DEET 1994).

Behind the trends and indicators are details which raise more specific questions about the nature of evolving demand. In Japan, for example, university graduates traditionally have been recruited into enterprises which align company work and employment practices against a commitment for lifetime employment. This does not apply in all firms, but the practiced have been highly influential even for those enterprises which did not make such formal commitments. National and enterprise development strategy—and education strategy—was established on the basis of these practices and commitments. In the current economic difficulties, the long-standing arrangements and understandings are weakening. There is scattered evidence of this: lower recruitment to and slower rates of promotion in the public sector; increasing numbers of workers pursuing at mid-career new employment and career options. Graduates no longer can be confident that they will remain with the enterprise which recruits them. The Japanese case finds parallels in other countries, where there are relative if not absolute declines in employment in both state-controlled enterprises and in the public sector. There are other examples of new employment paths for graduates: in New Zealand, those with qualifications for teaching find employment outside of teaching, some not surprisingly in jobs seemingly directly related to their studies (e.g. work with special needs populations for those with teaching qualifications in special education) and in self-employment, but others somewhat more suprisingly in management and administrative posts in private firms. In Denmark, the OECD tertiary education review team heard from a manager of a large multinational in the IT field about his company's recruitment from the humanities as well as sciences, mathematics, engineering and economics. In the United Kingdom, according to the association which monitors graduate recruitment, young people are weighing the possibilities for learning in and re-shaping entry-level jobs against learning opportunities in formal tertiary education institutions. Some of the young adults who opt for the work/learning environment in firms may eventually find their way into tertiary education programmes.

Without going more deeply into a very wide range of experiences, we can draw attention to a number of questions and issues linked broadly to these developments.

How much further can participation in tertiary education be expected to increase on the grounds of the ‘pull’ from the restructuring underway in economies? As already noted, the trend has been continued growth, even in countries which have had high rates of participation in tertiary education such as the United States (Table 1). On the indicators developed from the OECD education data base, Australia is located above the average, but by no means the highest in terms of participation rates in tertiary education. In some countries, there is a view that expansion may be approaching some natural limit in terms of the ability of the economy to make productive and profitable use of the skills profiles available.

While it is not possible to draw firm conclusions on the future evolution of demand for and supply of graduates, recent experience suggests that a case for continued growth can be made on economic grounds. Relative returns to tertiary education have been maintained even as the number of graduates has increased. A simple explanation—perhaps too simple—is that the demand for graduates has increased as much as supply. this is at least part of the message conveyed in the recent OECD report on Human Capital Investment (OECD 1998a). While the experience varies from country to country, the general assessment is that returns on investment in tertiary education are significant (Table 2)—above 10 per cent—and broadly competitive with returns on alternate investment forms and options. The calculations employ crude proxy measures and are based on assumptions which may not be valid, e.g. the continuation of existing patterns of returns by age group; earnings differentials as a measure of the value of the marginal product of individuals; omission of other non-money, economic returns such as reduced social costs; distinctiveness of programmes at different education levels and between sectors. However, errors in methodology, defintion and measurement may work to favour tertiary education as an investment as much as to reduce its apparent ‘profitability’. Without entering further into this debate, the calculations are useful in several ways: first, in terms of the orders of magnitude of the rates of return implied for a large number of countries; second, in the patterns which emerge within and across countries, leading to further consideration of the sources of the differences among which the provision of tertiary education which is sufficiently diverse for, and appropriately matched to, student backgrounds and interests and the needs of the economy; and third, in the interest of policy makers with education and other portfolios to evaluate education expenditure not only (or even primarily) as present or future consumption, but as an important national investment which contributes to economic growth and well-being. (1)

Of course, these are crude calaculations, subject to a number of different interpretations. A key question is whether the rates of return to tertiary education reflect a substitution of the more highly qualified for less qualified, in jobs which essentially are unchanged. While some studies do support this view, others provide some evidence that restructuring leads to upgrading of skills requirements and that a significant share of employers adapt models of production to take advantage of the available skills profiles (see, eg. Mason 1995).

The more important shifts may be associated with the the knowledge and skills developed by students following particular programmes. In this respect, it is not the volume of participation but rather the types and forms of tertiary education which are crucial. As it was put by the OECD tertiary education review team in one country: 'The country requires a diversity of talent, and a diversity of learning opportunities to develop that talent.' This corresponds to what is intended by the OECD's use of the term 'tertiary education', which is meant to refer to a level of studies beyond secondary education, encompassing a wide range of types and forms of programmes, teaching and learning, among which the traditional university or university programme is one such option. From this perspective, it is not clear that conventional university studies will 'pay off' for a substantially larger number of tertiary-level students nor that young and mature age adults aspire solely to such programmes if other viable tertiary-level education options are available.

Skills profiles

The labour market argument needs to be taken further. If national economies and societies increasingly require populations and labour forces with broadly developed capacities for applying knowledge, adaptability, team-work and continuous learning in the light of the pace and nature of changes underway in the wider setting, to what extent are these acquired in programmes, teaching and learning through tertiary-level studies? Very limited national or comparative evidence exists on this matter. The OECD has underway developmental work which seeks to go beyond existing measures of qualifications earned and student achievement to assess what graduates are able to do, defined variously as competences, cross-curricular, life or generic skills. The co-operative OECD/Statistics Canada International Adult Literacy Survey (IALS) provides some measures of one set of such competences, 'literacy skills.' For the survey, literacy skills are defined as the ability to understand and employ printed information in daily activities and its usage in order to achieve one's goals and to develop one's knowledge and potential. Literacy proficiency was assessed in three domains: prose, document and quantitative. Details on methodology and definition are provided in the reports emerging from this work, among which *Literacy, Economy and Society* (OECD and Statistics Canada 1996); *Adult Literacy in OECD Countries: Technical Report on the Adult Literacy Survey* (Murray, Kirsch and Jenkins 1997) and *Literacy Skills for the Knowledge Society* (OECD and Statistics Canada 1997). Australia has participated in the second wave of the survey; results were reported by the Australian Bureau of Statistics in late 1997.

For the present discusssion, two sets of findings are suggestive. First, adults with tertiary education tend also to demonstrate higher levels of literacy skills as measured by the instrument. This is an important finding. Of course, it may reflect the selection of those with such skills into tertiary education and their higher propensity to be engaged in activities over their adult lives which maintain these skills. But, the finding also could reflect the contribution participation in tertiary education itself makes to the development of greater proficiency in those literacy skills identified as crucial for individuals to be effective and productive in work and to engage fully in community and family life. But, that generally positive observation needs to be tempered. A proportion—substantial in some countries—of recent tertiary education graduates demonstrate weak levels of literacy as measured by the instrument. For 20–29 year olds who have completed any type tertiary education, the proportions in the lowest two literacy levels (on the prose scale) range from 3–4 per cent in Germany and Sweden to above 20 per cent in five of the countries participating in the survey (Table 3; as sample sizes are small, the percentages should be considered only as suggestive of the orders of magnitude). The reasons for these proficiency levels and inter-country differences are complex, having to do with education structures, social and cultural norms and activities, demographic characteristics such as first language other than the dominant language of use, and levels and patterns of participation in education at the tertiary level. Whatever the explanations, the data are suggestive: on this measure, some proportion of recent graduates apparently lack the literacy skills needed to function effectively in today's economic and social environment. For the purposes of this discussion, it is sufficient to note that participation in or completion of tertiary education does not, by itself, indicate the acquisition of such skills (at least in the domains examined and on the basis of the assessments employed). The more interesting and challenging question is the role tertiary education should play in helping young and older adults develop broader competences, such as the literacy skills assessed in this study. A key question is how teaching and learning might best be organised to foster the development of such skills, given large volume participation at the tertiary level, the diversity of backgrounds and interests of students and the wide range of programmes and study options which they choose.

It will be important to reflect carefully on what 'generic' skills are to be developed. Certainly, capacities to seek and apply knowledge, to problem-solve in different ways and at a high level are valued. But, these capacities are not to be conceived as specific responses to narrow demands of employers. 'Team work' and 'adaptability', for example, are not to be confused with 'blind loyalty' or 'passivity'. Tertiary education should help all students develop independence and creativity in thinking, curiosity and initiative. Those attitudes and dispositions may prove to be particularly beneficial in periods of change, when adaptability implies initiative and entrepreneurship. This provides an argument for curiosity-based, student-centred learning and re-learning.

Student choices and student-centred teaching and learning

What seem to be most useful are *mixes* of skills, knowledge and dispositions developed to a relatively high level, which while having elements in common, will differ from one person to the next. Has tertiary education responded to these more varied, more individualised demands? The answer is yes, at least in part. The dramatic expansion of enrolment and presently high levels of participation in tertiary education represent significant achievements on the part of the sector, governments and the various stakeholders in meeting the overall demand. There exists, in most OECD countries, a range of tertiary-level study options.

The response is equally on the side of students: OECD tertiary education review teams in all participating countries commented on the active engagement of students. There is, of course, activism with regard to specific government or institution initiatives, not least concerning conditions of study as in France and Germany, but also New Zealand among other countries. But, it is more than this. The language of the West Committee's draft report conveys a sense of a somewhat deeper engagement in suggesting that students are shifting from being 'passive consumers' to 'sophisticated clients'. An unremarked feature of participation is that 'many new pathways and combinations are being created—not so much by the deliberate policies pursued by education authorities, but rather by the choices made by the students themselves. 'The choices reflect strategies aiming to take advantage of the options best suited to individual interests and needs' (OECD 1997b). These choices suggest that the skills profiles of the labour force are being less defined by tertiary education programmes and qualifications and more by the combinations of study options now being pursued by learners of all ages. The extent of such mixes in countries such as France, Germany, the United States, Portugal, the Netherlands and Japan imply an impact which goes beyond the programmes to a situation in some fields where, as it has been put in one country, the students are 'defining' the field.

In one sense, such choices reflect a student-centred provision: learners with varied demands, interests and backgrounds are being accommodated even if policies and programmes have not fully taken these differences into account. But, it is important to put this into a wider frame: tertiary-level programmes should not be formulated solely in response to individual demand. There are public and employer interests as well as student demand at play. Further, there is considerable understanding of how a body of knowledge can be accessed, understood, updated and applied within tertiary education institutions and programmes. 'Student-centred' in this sense, then, should be interpreted as providing programmes, teaching and learning which take into account the interests, backgrounds *and* choices of students. There is, thus, a pro-active role for institutions, their leaders and teaching staff to shape programmes and learning experiences so that learners will best be able to acquire the kinds of knowledge, skills and dispositions which will equip them to be productive in their work and to engage fully in civic and family life. It would be a mistake to envisage a 'clash' of interests; in fact, the different parties share views: for example, while being keenly aware of the difficulties sometimes encountered in the transition from tertiary education to employment, students take a very broad view of learning and value the theoretical and interdisciplinary orientation of tertiary education study programmes as an appropriate preparation for employment as well as non-work activity (UNESCO 1996).

Diversity now characterises the student populations in most countries, e.g. mature age, gender and non-traditional participants. Such diversity has led to a breaching of formerly rigid boundaries in tertiary education: learning by individual students is realised across levels of education and sectors of tertiary education as already described; between public and private providers of tertiary education; and outside of tertiary education programmes such as in work settings. From another perspective, categories of students can no longer be so easily distinguished according to programme enrolment: full- and part-time students are less easy to identify clearly, with respect to their backgrounds as well as current activities (concurrent work, for example) and programmes of study; young and mature age, working and 'inactive' and fee-paying and publicly-supported students now are more likely to sit alongside each other in classrooms, laboratories, libraries and computing centres. But, to acknowledge greater diversity in participation in all countries is not to say that gaps and differences remain: with respect to age at first entry to university, for example, 80 per cent have enrolled by age 20 in France as compared to age 28 in the United Kingdom and New Zealand. Further, there remain distinct differences in participation rates by socio-economic group in nearly every country, even in the wake of rapid expansion which itself opened up opportunities for those who would not have found places previously and, further, there are clear differences in the distribution of students among fields of study by gender. A 'student-centred' approach should take those aspects into account.

The issue is whether there are appropriate, high quality options for different types, forms and timing of learning. The evidence suggests that in some countries, present approaches are not meeting needs: queues for entry, numerus clausus, little or no mentoring or tutorial support, infrequent feedback, high failure rates, lack of incentives or recognition for good teaching by contrast with research and consultancy, worsening staff–student ratios and unimaginative 'more of the same' teaching. Such evidence as exists on drop-outs broadly indicates a problem, even if the nature of the problem and how it is evolving in the face of demand and large volume participation are not well-understood in most countries (Table 4). Nothwithstanding the wide range of actions reflected in the reforms in train in a number of OECD countries, changes actually realised in programmes, teaching and learning are uneven. A number of actions reflecting a more student-centred approach have certainly been of value: the *tutorat* in France; enhanced counseling in Belgium (Flemish Community); learning centres in the United Kingdom and the United States; initiatives aimed at improved student life in France; efforts to breorient students already following particular study lines in France; new, wider range of programme options in Denmark. Yet these actions reflect more by way of complements to existing programmes and teaching; they have not so far affected the contexts, contents and methods of teaching and learning in ways which are student-centred.

Conclusions

Placing students at the centre of tertiary education necessarily draws in individual motivations for participation on the one hand, and provides a different lens through which to examine the curriculum and ways of teaching and learning on the other.

First, a review of selected comparative data has shed light on the matter of demand. The case for growth and higher levels of participation can be made on the basis of 'pull' factors from the economy. But, the gaps and wide diversity in the interests, backgrounds and choices of tertiary education students imply a need for provision which is also diverse. This is a challenge to be met by a student-centred approach in tertiary education.

But, second, a student-centred approach does not necessarily mean response solely to individual demand. Public and employer interests and the key role of those in institutions to assist learners in acquiring knowledge and skills in ways which are coherent and transparent imply a need for taking into account other interests and expertise. While the student may be the primary client, it is for institutions, programmes and teachers in tertiary education to shape the learning experience with the broader interests and a longer range view and to assist the learner. This is a key, essential role.

Thus, a final conclusion: While demand and student-centred provision seems to suggest a passive or responsive role for institutions, programmes and teachers, there is an evident need for those within tertiary education to be pro-active, to take a leading role in improving access, addressing the diversity of interests in study programmes, assisting students to develop 'generic', cross-curricular skills, equipping learners to extend the use of their abilities and knowledge beyond the edge of narrow, defined job requirements—indeed, to become pro-active. Such a pro-active role for tertiary education may be the key to putting students at the centre of the education paradigm.

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Notes

(1) Financing is naturally linked to demand, individual and social. Rationales for the sharing of tertiary education costs (broadly defined) and for financing mechanisms have been advanced *in Redefining Tertiary Education* (OECD 1998b), *Human Capital Investment—An International Comparison* (OECD 1998a) and *Lifelong Learning for All* (OECD 1996). Increased student participation in financing tertiary education arises in all of these reports; among others, two key questions arising from such an approach will require further study. First, the potential effects on access (low income, part-time and adult) and efficiency (study choices and timing) and, more broadly, on the increased marginalisation of those who do not participate in tertiary education are not known. We do know in countries such as the United States, Japan and Australia that participation from under-represented socio-economic groups has generally increased along with expansion which has been financed, in part, by contributions from students and families; however, the evidence seems to suggest that expansion has increased participation broadly, so that the distribution by socio-economic group has remained about the same over time. Concerns on these matters have been partly addressed in some countries—but not fully, and not in all countries—through adjustments of existing fee schedules and financing arrangements, including student support schemes. It remains to be seen whether the adjustments will have the intended effects. Second, a particular issue is the effect of deferred payment or loan repayment obligations for the student charge, fee or contribution on the consumption or investment decisions of adults making such payments. Accumulated obligations or debt may have longer term impacts on the timing and levels of outlays for consumer durables, housing, etc; continuous learning, the costs of which are shared among learners, employers and the public purse; and spending on education and education-related activities for the children of graduates with such obligations or debt. These life-cycle and intergenerational effects have been too little studied; the lack of such analyses seems inconsistent with a student-centred, learner's perspective and also with a renewed policy interest in education as an investment.

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Table 1 Net enrolment in public and private tertiary education by age group, 1985–95 (based on headcounts)

	Ages 18–21			Ages 22–25			Ages 26–29		
	1985	1990	1995	1985	1990	1995	1985	1990	1995
North America									
Canada	25.5	28.9	37.9	9.5	11.4	21.7	3.0	3.4	9.2
Mexico			.9			.5			2.7
United States	33.0	36.2	34.7	14.5	17.1	20.7	8.2	8.5	10.5
Pacific Area									
Australia			29.8			14.1			8.9
Korea			34.1			16.3			3.4
New Zealand	14.9	20.8	28.6	9.6	13.8	13.3			7.2
European Union									
Austria			12.0			13.3			8.0
Belgium	24.5		40.7	7.2		16.5	1.5		3.6
Denmark	7.4	7.4	8.9	16.3	17.9	22.6	8.2	9.3	11.2
Finland	9.3	13.6	17.5	17.3	20.7	27.4	7.9	10.2	12.9
France	19.4	24.6	34.2	10.0	11.8	17.7	4.3	3.9	4.6
Germany*	8.8	8.5	10.6	15.5	15.9	17.0	8.9	10.4	11.4
Greece			32.9			10.6			3.2
Ireland**	15.2	20.3	27.2	2.8	4.3	15.5			
Netherlands	14.4	17.9	23.2	11.9	13.4	18.7	5.7	4.7	5.6
Portugal	5.8	m	17.9	5.4	m	15.7	2.3	m	5.9
Spain	14.9	21.2	25.6	10.6	13.5	17.5	4.0	4.5	5.5
Sweden	7.9	8.7	13.0	11.3	11.4	16.6	6.5	6.1	7.5
United Kingdom	m	16.1	25.8	m	4.7	9.3	m	m	4.8
Other OECD									
Czech Republic			15.9			8.0			2.1
Hungary			11.9			7.9			2.3
Iceland			7.9			20.3			6.9
Norway	8.8	14.4	17.5	13.2	18.9	23.6	5.7	8.2	10.0
Switzerland	5.7	6.4	7.7	10.6	12.1	14.7	5.2	6.4	7.2
Turkey	m	7.4	10.1	m	4.6	7.4	m	2.3	3.4
Country mean			21.1			15.5			6.6

Note: Data refer to all enrolment, not just first years.
* break in data series between 1990 and 1995.
** data for 22–25 age group include ages 26–29.
Sources: OECD 1997a, *Education at a Glance*: Table C5.2b; OECD 1997b, *Education Policy Analysis*: Data for Figure 5.1.

Table 2 Internal rates of return to tertiary education by gender (1995)

	Men		Women	
	Non-university tertiary	University	Non-university tertiary	University
North America				
Canada	23	17	28	29
United States	9	13	11	13
Pacific Area				
Australia	10	10	8	7
New Zealand	-12	12	-1	10
European Union				
Denmark	5	11	5	9
Finland	11	15	12	14
France	18	14	20	13
Germany	17	11	9	8
Ireland*	12	14	8	17
Italy	m	11	m	11
Netherlands	m	11	m	11
Sweden	7	8	4	5
United Kingdom	5	13	14	19
Other OECD Countries				
Czech Republic	m	9	m	7
Norway	9	12	8	13
Switzerland	27	6	18	5
Country mean	11	11	11	12

Source: OECD 1997a, *Education at a Glance*: Table E5.1.

Table 3 Proportion of young adults aged 20–29 whose highest level of education is at the tertiary level who are at each literacy level on the prose scale

	Level of performance on IALS prose scale		
Level of Education	Level 1/2	Level 3	Level 4/5
Belgium (Flanders)	7.5	52.9	39.6
Canada	14.4	42.4	43.1
Germany	3.9	40.0	56.0
Ireland	23.7	46.9	29.4
Netherlands	10.0	43.8	46.3
New Zealand	22.8	36.8	40.4
Poland	30.0	46.8	23.3
Sweden	3.4	39.4	57.1
Switzerland (French)	14.8	56.8	28.4
Switzerland (German)	29.2	51.7	19.1
United Kingdom	19.1	47.3	33.6
United States	26.9	45.1	28.0

Source: OECD, Adult literacy survey data base, unpublished tablulations.

Table 4 Failure rates in tertiary education, selected countries[1] (percentages)

	Fail in first year	Fail to complete programme	Fail to complete any programme
Belgium (Flemish community), 1994	47	34	
University	50	39	
Non-university (one-cycle)			
Belgium (French community), 1992–94	56–62	57	
University	60	38	
Non-university			
Denmark, 1992–93		40	26
Tertiary			
France, 1993		27	
Total tertiary, excl. STS[2]		20	
University Institutes of Technology			
Italy, late 1980s Tertiary			64
Germany, 1993–94 Tertiary			29–31
United Kingdom, 1995 Tertiary			6–13

Source: OECD 1997b, *Education Policy Analysis*: Data for Figure 5.7.
Notes:
1. Figures are not strictly comparable, owing to differences in coverage and methodology.
2. *Sections de Techniciens Supérieur.*

3.8 Response—Students at the centre of the education paradigm: Changing patterns of demand

Professor Millicent Poole, Vice-Chancellor, Edith Cowan University, Perth, Western Australia

In discussing Dr Wagner's paper, I thought I would briefly try to do three things. First, I thought I would look at some of the trends he has presented to us in terms of patterns of participation and patterns of demand and try to briefly contextualise that in the Australian situation. Secondly, I thought I would raise some questions that his paper raises in my mind in terms of the shift to student centredness and the increasing pattern of demand and the implication for student choices. In relation to that, I will raise some questions about the implications of those patterns in terms of the system, particularly the system of higher education or the university sector in trying to respond to those trends. Thirdly I will put forward some possible scenarios of where to next—all within three and a half minutes of course!

Dr Wagner has mentioned this increased pattern of participation. I have taken a number of trends from the OECD education policy analysis and education-at-a-glance indicators. In looking at those trends, which are pretty universal, I think it is pretty obvious to all of us in Australia that those patterns have very much been reflected in our lives in the last several decades. Certainly, it was direct government policy to increase school retention and participation—the cynics say to take away youth unemployment from the labour market!

The themes that have emerged from the addresses of Professor Skilbeck and the Minister on universal participation are very interesting. A prediction in the OECD education policy analysis is that by the year 2015, more than half of the OECD countries will have achieved a 75 per cent participation rate, which is quite remarkable.

The increased pattern of participation by women is well documented in Australia. That again was very deliberate policy but, as Dr Wagner has said, this has not been mirrored in increased pathways of employment opportunities and there is still gender segregation in the labour market. Although the tertiary education sector and governments have tried to address this trend, they have not been very successful.

The age at which people participate is quite fascinating. Australia was probably one of the first countries to have more mature age participation, but I think that those words 'mature age' and 'school leaver' are now probably about to change from a discourse in terms of 'universal' and 'continuing'. Now we will probably find there will be more demands on the system from these changing patterns of participation. The requirements for retraining and upskilling, which are driving a great deal of this, in terms of a revised version of the human capital theory, if you like, certainly point to the need for competencies and, indeed, there is a great deal of rethinking about skills, the focus on literacy, computational competencies and so on.

In this whole pattern of pressures of participation and how the sector will move to universal, I am interested in how we are going to get to this situation because I feel that at the moment middle class attendance at university is at saturation point. If you look at the patterns of trends, while the gender picture is encouraging, the patterns for lower socio-economic groups and for rural groups and remote communities is still disappointingly low. Where are we going to get this cohort to get to the next pattern? I am not sure whether Dr Wagner can enlighten us on that matter.

What questions do those patterns raise for the sector? We are starting to focus now on a major shift in paradigm, looking at students at the centre of the system. In the old days we used to talk about student-centred learning, but that was a psychological perspective. Now student-centred learning is about how the system can deliver to students or clients or customers the sorts of packages, programmes and employment pathways that they really want in terms of their willingness and capacity to pay for higher education, as distinct from something that was paid for by the government because it was seen as a public good. Now the debate has moved very much towards the private good and the individual having to pay more for that.

How do we cater for those patterns of diversity that Dr Wagner has put up in terms of recruiting our staff? If you look at staff at universities you will see that they don't reflect ethnic diversity or gender diversity, particularly in the upper levels. Then let us look at the provision of student services. I am at a university that has a lot of distance education students, students in remote areas and students scattered over several campuses. The whole question of what services you provide for mature age and diverse students is important.

Of course curriculum content has always been problematic in terms of whether you teach generic courses and whether you try to internationalise the curriculum as we are being challenged to do. Another question is course length. I have just come back from a marketing trip to Kuala Lumpur with the other Vice-Chancellors in Western Australia. We pride ourselves on our two-year master courses. The British have one-year master courses, but their course links are a 12-months one-year course, as distinct from our two nine-month courses. There are a whole series of challenges here. In delivering those, we are all challenged by the remarks of Dr Wagner and Professor Skilbeck and by the West Report in terms of the growth in information technology.

I find the trends leading to growth to be a fascinating set of trends. I will not go through it in any detail, but when you think that we once had only six universities, you realise what a change there has been. One of the most exciting times in my life was when I started at a new university—La Trobe. There was economic and social reconstruction after the Second World War. I do not know what the policy drivers were there, but the concepts were much a different sort of educational system to cater to different clientele—more inter-disciplinary work, more applied work, more problem-solving and so on. I do not know that those things worked, but that is another marker in a changing system—to be responsive to changing clientele and student centredness.

We should be proud of what we have achieved—the fantastic increase in student demand. It is phenomenal for any country to achieve that level of increase in the provision of tertiary or higher education. When I hear politicians or fellow vice-chancellors saying that Australia has too many universities, I think that is pretty sectionalist self-interest, especially when you think of the number of students that this number of universities caters to. It is moving back to the attitude of 'Don't let's educate the masses; let's go back to a more elite system and have the public purse pay for us elites. To heck with those who are genuinely committed to access and participation.'

Other factors which are causing growth in the system, which did not come out in Dr Wagner's talk, include the notion of baby boomers all over the world and the OECD patterns. Some of the growth patterns will now be qualitatively different because of that saturation of certain groups.

Dr Wagner mentioned a number of pressures for growth, but in particular he mentioned the earning power, which is still a major force for growth. Although the data there is a little tricky, it is still a pretty powerful trend that there is a positive connection between growth and earning power.

All speakers so far have mentioned the move to a knowledge-based economy. I think that will push us very much, particularly in Australia, as we try to move away from our wool/mining mentality—although we do not seem to have done that in terms of value-adding exports—to being able to run with our tremendous regional possibilities for being a key node in knowledge-based industries in the economy. I will skip reforms in vocational education, because that will be handled in the next section.

Dr Wagner detailed some of the changes in labour market profiles in terms of the demand for flexibility and the demands placed on us for continuing to learn throughout the life course.

One of the points that was not raised in the paper was the pressure for offshore delivery in terms of Australia and its potential to be student centred and to think globally—although globalisation was mentioned by two or three speakers. The potential for our system in terms of offshore delivery is, I think, quite extraordinary.

In terms of challenges for us in higher education as a sector, it is interesting that increasingly we will be pushed towards thinking about how education and training are different and within those patterns of participation and demand we have to consider to which groups we will give education and to which we will give training and at what cost differential. Then, of course, we must consider what value and role universities can deliver which will make them different from private providers. I am fascinated by the praise of private providers by the West Committee and the Government, particularly as these providers do not have the infrastructure that universities have, and their quality and mode of delivery is very different. Nonetheless it poses tremendous challenges to us as a sector.

Moving to possible future scenarios, I have no doubt that there will be a number of continuing drivers, which will drive the patterns that Dr Wagner and Professor Skilbeck have both described. The increase in the use of technology will be a factor for increasing demand for greater participation. The growth in the service sector and globalisation, the growing financial constraints—certainly in terms of public policy and the way that is going at the moment; there is some sort of blind ideological belief that the public sector is bad and the private sector is good, and user pays is good. These patterns will impact dramatically on universities' capacity to delivery services. In making choices, students will have to look at the cost factor in that process. Certainly I do not see any good or happy news. Neither political party has the will to put resources into higher education. As a sector, we are squeezed for funds—and I was devastated to hear the Minister's comments about the next enterprise bargaining round; I would like to invite someone from his inner think tank to come and work at a university for a while to see where those efficiencies can be squeezed from, particularly given our current union processes in Australia which, despite different workplace bills, have not really freed us up from that inflexibility in the labour market.

Dr Wagner mentioned quality, flexibility and the fact that universities were being asked to do more with less as other drivers in the future. We have also had a whole era of accountability in public policy which has also impacted.

There is a shift from provider-driven models—and this is a dramatic change in terms of the shift in paradigms to student centredness that Dr Wagner was talking about. Courses have to be tailored to meet those demands as distinct from our saying: 'I am an expert in psychology or philosophy or business management' to students demanding certain different tailored packages which will impact enormously on curriculum development and provision.

It is interesting how educational thinking gets recycled. 'Learning to Learn' was a UNESCO report in 1972, so this notion has taken more than 25 years to get into the discourse of higher education.

Something we are hearing more about—it was in the Minister's report in relation to Victoria—is cooperation between universities in terms of offering languages. In Victoria you can do classical Greek, Italian or Thai or whatever. This will definitely be a pattern in the future—I think it is a healthy one—which will be forced on us by cuts in budgets. I think this cooperation will lead to a better quality of delivery of service and rationalisation and consolidation. That is to be applauded.

What Dr Wagner has been talking about is a major mind-shift that will need to occur. I am already starting to talk through this with my staff and it is a very painful shift in mind-set, where students are considered as customers and their needs are thought to be of a higher order than those of staff.

A pressure that Dr Wagner did not comment on, but which I think is important, is the notion that Australian graduates have to be able to operate globally. How do we internationalise our curricula so that our students can do this?

Finally, in terms of some challenges for us, how can the universities ensure that students remain at the centre of the education paradigm? Do we want them there? Or is this just a cycle of the current government which will change? Is the inertia in the system so great that it will take a long time to pull that back? I do not think that governments should underestimate the conservative powers of churches or universities in terms of the culture of the academy. Shifting people from thinking from the point of view of their expertise, teaching and research in whatever their subject to thinking about what the students want for their career pathways is a major paradigmatic shift. I am not sure that we have fully grasped it yet.

How should we operate in the twenty-first century? In the West Report, the Global Alliance Appendix No. 11 gave a scenario of a very different type of university with the mega-companies being in a consortium and producing high-quality products which will be sold—a kind of commodification or universality in terms of curricula package because of huge costs. Companies such as Telstra or IBM will be in partnership with universities. I think that poses a really interesting challenge. Then, of course, we must ask whether any one university can compete in the global market. In the Australian context it is fascinating to see these new patterns and trends work through the system. One or two of our universities are saying 'We will be the global university'. But can any one university in Australia today truly compete and survive in this new era unless we go into strategic alliances and consortia?

Dr Wagner, I think you have raised a number of very important questions for us. You have given us a fascinating set of patterns and trends in terms of student choice and pulls and pushes in the marketplace. I wish you had had more time to talk about finance, as I think it is, unfortunately, one of the powerful drivers in creating both a good student-driven model and the system's capacity to respond to those changing patterns.

3.9 Report by the seminar rapporteur

Professor Ingrid Moses, Vice-Chancellor, The University of New England

The theme of this Australian seminar is *OECD Thematic Review of the First Years of Tertiary Education*.

In the introductory address, the Minister presented us with a new definition of tertiary education. He said: 'The tertiary sector now embraces the new national apprenticeship system, nationally recognised industry training, TAFE, private training providers and public and private universities.' This definition goes far beyond what we used to define as tertiary education: organised study in a tertiary education institution. Tertiary education used to be coordinated through the Commonwealth Tertiary Education Commission, responsible for TAFE, the advanced education sector and the university sector. With the demise of the binary line in higher education (advanced and university education) we regarded TAFE and equivalent private providers and universities as providing tertiary education. We talked about students, not apprentices, not employees, not workers.

The OECD too, in its publications concerning the Thematic Review talks about the 'students' with the clear assumption or at least giving the clear impression that tertiary education is still largely institution-bound.

This seminar has three main themes, 'Students at the centre of the education paradigm—changing patterns of demand', 'The case for a conceptually coherent education sector', and 'Universal participation—implications for policy makers, institutions and students'.

I want to comment under two main headings, Universal Participation, and Diversity, Coherence, and Standards.

Universal participation

In my understanding, the OECD, indeed Trow in 1973, understand 'universal participation' to mean participation in tertiary education as defined in the Thematic Review. The Minister talks about universal participation in a broader educational context. In that context, in the context of workplace and institution based learning we already have universal access, and here we mean 80–90 per cent participation rates.

But even participation in private and public education by the age groups 18–29 was in Australia in 1995 at 52.8 per cent (Alan Wagner's Table 1), indicating that we have made that transition from mass to universal education.

In Elaine El-Khawas' paper we were reminded that universal participation means massive changes in student population. Yet in Australia, the student population has been more diverse, study patterns have been more diverse for many decades than in many other OECD countries. Due to the demographic distribution and the location of universities, part-time and external/distance/off campus study have a long tradition in Australia. In Australia in 1949, part-time students represented 27.4 per cent of all students, and external students 8.7 per cent. In 1997, we have similar proportions studying part-time (27.3 per cent) and even more externally (13.3 per cent . While in 1949 these two groups amounted to only 11 448 students, in 1997 these groups consisted of 267 373 students! (Higher Education Students Time Series Tables, 1998, Table 1).

If our societies are moving towards universal participation in tertiary education we need to ask: what is the benefit?

Alan Wagner in his paper talked about the economic objectives, of the requirement for a population and labour force with broadly developed capacities for applying knowledge, adaptability, team work and continuous learning. Our Minister saw as one objective, 'expanding access for all who can benefit from tertiary education'. He sees 'education and training contributing to individual autonomy, social cohesion, a more democratic society and economic efficiency'. These are objectives which we can happily endorse.

In a system of universal education the role of the state needs examining. Does it need to change?

The Minister stated, 'I have long held the view that higher education quality and diversity flourishes when universities have autonomy to pursue their own ways and means of achieving their objectives.' And, 'Decentralised policy and financing frameworks that allow and require institutions to respond flexibly to student choice are more likely to meet diverse needs and stimulate innovation'.

However, the question still remains what responsibility the state should take with regard to enabling universal access, financing the education, and ensuring quality.

Elaine El-Khawas presented six key challenges for policy makers. In Australia we would expect the State to take some responsibility, at least through incentive funding, for ensuring that:

- more complex student flows and more dispersed patterns of study are accommodated;
- sophisticated yet flexible student-based record systems are developed;
- learning is assessed in small units and for entire study programmes;
- degree programmes are coherent, yet increasingly modular;
- teaching is organised to meet more diverse functions; and
- greater oversight and coordination is provided as institutions become more differentiated.

We learnt that in the US it would not be the state(s) but more likely a range of non-profit private educational organisations who would take up these challenges.

Diversity, coherence and standards

Throughout all papers and discussions key concepts tossed about were diversity, coherence and standards.

In Australia, of course, there was a diversity of institutions. Elaine El-Khawas talked about Anytime, Anyplace University at the one extreme, and Targeted University at the other. Of course, we used to have targeted HEIs, agricultural colleges, colleges of art and design, music schools, institutes of technology. We moved with the establishment of the Unified National System in 1988–90 to multiversities. Now we are encouraged by our government to be find strategic niches—without painting oneself into a corner!—to be more targeted once again. But in Australia at least, 'Targeted University' would not mean limited geographical markets. Through our history of distance education, our integration of on- and off-campus delivery and a general development of flexible learning throughout the system, we are all national, indeed global in our outreach.

The diversity in institutions, student body, study modes is desirable. As Alan Wagner quoted a Review team, countries 'require a diversity of talent, and a diversity of learning opportunities to develop that talent'.

While there was general endorsement of diversity, there remained concern about hierarchies of experiences, of essential differences between different forms of tertiary education. The difference is not only evident in students' backgrounds, in curricula, in staff qualifications and expectations of what staff do, but also in the role research plays in various institutions.

If we adopt a different viewpoint, namely what students should learn in terms of general competencies, then we can uphold the concept of diversity of learning experiences without a hierarchy.

Alan Wagner noted, 'tertiary education may—should—help all students develop independence and creativity in thinking, curiosity and initiative. Those attitudes and dispositions may prove to be particularly beneficial in periods of change, when adaptability implies initiative and entrepreneurship. This provides an argument for curiosity-based, student-centred learning that goes beyond conventional distinctions between general and vocational, university and non-university.'

This, however, can only be achieved if there is some coherence in the educational programme, in the educational experience.

While Iain Wallace spoke about the coherence of the system, the discussions centred mainly about coherence of programmes and experience.

In a very diverse system, with students of very different abilities, preparation, studying in different modes, at different times, and perhaps 'swirling' from institution to institution, as Elaine El-Khawas called it, it becomes increasingly difficult to provide a coherent degree structure.

In Germany, the concepts of Lehr- and Lernfreiheit have meant that not only can academics teach without regard to (political) interference, but that student have the freedom to learn. For most students this means very long study programmes where they exercise choice.

In Australia, the student choice has been restrained through much more closely prescribed curricula. The OECD report notes a strong vocational orientation in tertiary education, a 'weak tradition of liberal education' and wonders, 'why have there been so few attempts to develop institutional programmes that ensure an effective combination of general or liberal studies and more directly vocational ones?' (pp 20–21).

If students are encouraged, allowed to build their own programmes, from different universities or other tertiary education providers, they must, if 'swirling', construct their own meaning, they must create their own coherence.

Yet institutions increasingly are expected—see the Quality Reviews, see the West Report, see the Minister's comments—to ensure that graduates acquire a set of generic attributes, a set of transferable skills. While institutions can, academics will want to, ensure that there is coherence in degree programmes, the flexibility we endorse makes this coherence very difficult indeed and we have not as yet solved that tension, though we have been aware of it for some time.

Again we must ask, whose responsibility is coherence? Programmes cannot respond to consumer demand alone, cannot respond to market forces. Both academics and society (the state) have a legitimate interest in it. As Alan Wagner said, 'The conclusion to be drawn is not that programmes should be formulated solely in response to demand. There are public and employer interests at play, and considerable understanding of how a body of knowledge can be accessed, understood and applied is found within institutions and programmes. Those programmes need to be developed, however, in the light of the interests, backgrounds and choices of students.' And we would endorse this.

The question remains still unanswered: To what extent should education be student driven? Employer-driven? State-driven? Driven by universities and disciplines?

We are coming to a point where we are talking about collaboration.

There was agreement in the discussions, in the various papers that we need to communicate better—universities with prospective students, employers with universities and employers with prospective and enrolled students, and government with the public and with universities. Collaboration is only possible if we share assumptions and articulate expectations.

The question of standards was raised and discussed in various contexts—when we talk about a seamless education system, when we talk about a coherent system, when we talk about articulation, about lifelong learning, about graduate attributes and skills.

The data on literacy skills provided by Alan Wagner are deeply worrying, as are the comments quoted by Jarlath Ronayne about the skills of our school leavers. In a universal tertiary education system the articulation of standards and clear responsibility for preparatory or remedial work needs to be negotiated, as does the role of schools.

Again, the question arises, where do the responsibilities and accountabilities lie in a democratic society? Surely the government has a role to play in setting the frameworks, the institutions similarly at a micro level, the teaching staff as professionals and the students as autonomous and independent learners.

4 Appendix

List of participants at the OECD Thematic Review Seminar which took place at the Novotel Hotel, Brighton Beach, Sydney, Australia, 20–21 April 1998

Dr Ian Allen	Deputy Secretary, Department of Education, Victoria
Dr Sally Borthwick	Skills Analysis and Research Branch, DEETYA
Mr Selwyn Cornish	Dean of Students, The Australian National University
Ms Marie Dixon	Quality Schooling Branch, DEETYA
Mr Ian Dobson	Associate to the Deputy Vice-Chancellor, Monash University
Professor Chris Duke	Deputy Vice-Chancellor, University of Western Sydney
Professor Elaine El-Khawas	Department of Education, University of California—Los Angeles
Professor Russell Elliott	Vice-President (Administration), Deakin University
Mr Kenn Fisher	Woods Bagot Architects
Mr Michael Gallagher	First Assistant Secretary, Higher Education Division, DEETYA
Ms Jenni Gordon	Assistant Secretary, Research Branch, DEETYA
Professor Grant Harman	Pro-Vice-Chancellor (Research), The University of New England
Professor Martin Hayden	Teaching and Learning Unit, Southern Cross University
Ms Mariann Jonczyk	Evaluation and Monitoring Branch, DEETYA
Dr Tom Karmel	Assistant Secretary, Operations Branch, DEETYA

Ms Martha Kinsman	Associate Director, Learning Services, Canberra Institute of Technology
Ms Mary Lovett	Executive Director, National Board of Employment, Education & Training
Professor John Loxton	Deputy Vice-Chancellor (Academic), Macquarie University
Mr David McCann	Operations Branch, DEETYA
Dr Craig McInnis	Faculty of Education, The University of Melbourne
Mr Bruce Milligan	Visiting Fellow, Centre for Continuing Education, The Australian National University
Professor Ingrid Moses	Vice-Chancellor, The University of New England
Mr Bill Mutton	Assistant Secretary, Funding Branch, DEETYA
Dr Malcolm Pettigrove	Acting Director, CEDAM, The Australian National University
Professor Millicent Poole	Vice-Chancellor, Edith Cowan University
Professor Michael Prosser	Academic Development Unit, La Trobe University
Professor Jarlath Ronayne	Vice-Chancellor, Victoria University of Technology
Professor Linda Rosenman	School of Social Work and Social Policy, The University of Queensland
Professor Malcolm Skilbeck	Former Deputy Director, Directorate for Education, Labour and Social Affairs, OECD, Paris
Dr Alan Wagner	Principal Administrator, Directorate for Education, Labour and Social Affairs, OECD, Paris
Professor J G (Iain) Wallace	Vice-Chancellor, Swinburne University of Technology
Ms Julie Wells	National Tertiary Education Union
Mr Tony Zanderigo	VET Reform Branch, DEETYA

5 Seminar—programme

Monday 20 April 1998

19.30–21.00	Dinner Presentation: *OECD Thematic Review—Its broad thrust and conclusions*
	Speaker: Professor Malcolm Skilbeck, former Deputy Director Directorate for Education, Employment, Labour and Social Affairs (DEELSA), OECD

Tuesday 21 April 1998

08.30–08.35	Introduction: Mr Michael Gallagher, First Assistant Secretary, Higher Education Division, Commonwealth Department of Employment, Education, Training and Youth Affairs, Australia (DEETYA)
08.35–09.05	Opening address by the Minister for Employment, Education, Training and Youth Affairs

Panel discussions

	Chair: Dr Tom Karmel, Operations Branch, Higher Education Division, DEETYA
9.15–10.30	*Students at the centre of the education paradigm—changing patterns of demand*
	Speaker: Dr Alan Wagner, Principal Administrator, DEELSA, OECD
	Discussant: Professor Millicent Poole, Vice-Chancellor, Edith Cowan University, Australia
11.00–12.30	*The case for a conceptually coherent tertiary education sector*
	Speaker: Professor Iain Wallace, Vice-Chancellor, Swinburne University of Technology, Australia
	Discussant: Dr Ian Allen, Deputy Secretary, Office of the Secretary and Office of Higher Education, Education Victoria, Australia
14.00–15.30	*Universal participation—implications for policy makers, institutions and students*
	Speaker: Professor Elaine El-Khawas, Department of Education, UCLA, USA
	Discussant: Professor Jarlath Ronayne, Vice-Chancellor, Victoria University of Technology, Australia
16.00	Summing up
	Rapporteur: Professor Ingrid Moses, Vice-Chancellor, The University of New England, Australia