CHAPTER 14

Lifelong Learning in the University

A New Imperative?

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INTRODUCTION

To identify lifelong learning as a key, new orientation in the teaching mission of higher education is, in some respects, surprising. On the one hand, the first years of university studies already aim to provide a basis for further study and learning, as well as for taking on advanced level tasks in employment. At the same time, most policy statements on lifelong learning—from the European Commission's White Paper *Learning and Training: Towards the Learning Society* (European Commission 1995), the Delors Commission report entitled *Learning: The Treasure Within* (UNESCO 1996) and the report of the meeting of OECD education ministers entitled *Lifelong Learning for All* (OECD 1996) to a large number of policy statements and commission reports in a number of countries—embrace a wide range of learning, education, and training activities. Higher education is but one of the many activities and stages of learning coming under policy scrutiny. Indeed, the U.K. Green Paper on lifelong learning is marked by the limited attention it gives to higher education; the "University for Industry" that it includes is not a university at that term is commonly understood, nor is the initiative directed primarily at

This chapter draws on the background note prepared by Professor Suzy Halimi for the Glion Colloquium and some of the interventions at that meeting. However, the views expressed are the author's; they do not implicate the Organisation for Economic Cooperation and Development or the countries concerned.

higher education (Department for Education and Employment 1998). On the basis of this account, universities and tertiary education more generally have a small, if well-established and well-defined role in lifelong learning.

Yet, there are other indications of the need for a reinforced, if not re-formulated, role for universities in lifelong learning and some evidence of increased provision for it in higher education institutions and systems in many OECD countries. For example, in Great Britain, the U.K. National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing, issued its report under the title *Higher Education in a Learning Society* (National Committee of Inquiry into Higher Education 1997); in Australia, the report emerging from the review of higher education financing and policy, headed by Roderick West, carried the title *Learning for Life* (Commonwealth of Australia 1998). Those titles accurately convey the committees' views that the most promising and appropriate directions for higher education are best seen and situated in a broader lifelong perspective for learning and that there is great value in bringing new thinking from this perspective to the organization, content, methods, and timing of learning in higher education. The report of the OECD's most recent work examining developments and policies at a level of studies beyond secondary education, *Redefining Tertiary Education* (OECD 1998c), takes a similarly broad view, as signaled by use of the term "tertiary" rather than "higher" education.[1] Taken together, these observations suggest new expectations and perspectives for learning at this level and new demands, even if a broad lifelong learning approach does not yet figure prominently in system-level higher education policies and the programs, teaching, and learning of universities.

The purpose of this chapter is to explore and elaborate more fully the role tertiary education institutions, universities in particular, might be expected to play in lifelong learning and to explore possible implications for teaching. Lifelong learning, in this respect, can be seen both as a "mission" and as an "influence," the latter in the sense of the manifestation of new, or re-formulated, demands for learning at this level.

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[1] Twelve OECD countries have thus far participated —Australia, Belgium (Flemish Community), Denmark, France, Germany, Japan, New Zealand, Norway, Portugal, Sweden, United Kingdom, and the United States (Commonwealth of Virginia)—leading not only to the comparative report *Redefining Tertiary Education* (OECD 1998c) but also "country notes" that are available through the home page of the Directorate for Education, Employment, Labour and Social Affairs at the OECD web-site [www.OECD.org.] The OECD defines "tertiary education" as a level or stage of studies beyond secondary education. Such studies are undertaken in tertiary education institutions, such as public and private universities, colleges, and polytechnics, and also in a wide range of other settings, such as secondary schools, work sites, and via free-standing information technology-based offerings and a host of public and private entities. "First years" is used in this paper to refer to studies that can lead to a first qualification recognized on the labor market. In these programs and studies, the volume and diversity of learners is greatest.

A LIFELONG LEARNING PERSPECTIVE IN HIGHER EDUCATION

As conceived by OECD education ministers, lifelong learning refers to a continuum of learning extending from the very early years to *troisième age*. In this respect, the concept goes wider than recurrent adult and nonformal education. It emphasizes learners, and learning in preference to sectors, segments, institutions, and boundaries—whether with respect to contents, methods, and contexts of teaching and learning. From this perspective, it is useful to draw out the main dimensions of a lifelong approach in higher education.

Current discussion tends to concentrate on a new expectation that graduates, after some time on the job, will return periodically as adults to the university for "updating" and "upgrading." This trend involves more than "second chance" opportunities for adults.[2] It is perhaps better expressed as "second bite" learning that is increasingly required to refresh and boost the stocks of skills and knowledge of earlier graduates, simply to keep pace with innovations in products and services of all types and the ways they are provided to those who demand and use them. Available data provide a mixed picture of the extent to which universities and other tertiary education institutions are meeting this demand. In its most recent examination of this topic, the OECD reported that, in the early 1990s, the university "share"of the volume of high-level professional education and training was 5-10 percent in Germany and 5 percent in France. In the United Kingdom, the United States, and Canada, the shares were higher, reaching nearly 30 percent in Canada (OECD 1995).

But a focus only on "second bite" learning would not cover fully the new or redefined aspects of lifelong learning in higher education. Participation of adults in regular degree or diploma programs constitutes another dimension of the "lifelong learning" demand. In many OECD countries, higher education is no longer solely the province of young adults. OECD indicators show that net enrollment rates have increased in the decade from the mid-1980s for 18- to 29-year-olds (the age band for which comparable data are generally available across the period). While the increase in enrollment rates is pronounced for those under age 25, significant increases also appear in the 26-29 age group (see Table 1).

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[2] The distinction between upgrading and "second chance" motives is blurred. Some adults without higher education qualifications upgrade in their fields, and in so doing, receive such qualifications.

TABLE 1

TRENDS IN PARTICIPATION IN TERTIARY EDUCATION BY AGE, 1985-1996 [1,2]
(NET ENROLLMENT RATE, PUBLIC AND PRIVATE)

	Ages 18-21			Ages 22-25			Ages 26-29		
	1985	1990	1996	1985	1990	1996	1985	1990	1996
Belgium	24.5	-	39.6	7.2	-	15.4	1.5	-	4
Canada	25.5	28.9|	40.5	9.5	11.4|	21.9	3.0	3.4|	9.1
Denmark	7.4	7.4	8.5	16.3	17.9	23.5	8.2	9.3	12.1
Finland	9.3	13.6	18.2	17.3	20.7	28.8	7.9	10.2	13.6
France	19.4	24.6	36.0	10.0	11.8	18.6	4.3	3.9	4.4
Germany	8.8	8.5|	10.8	15.5	15.9|	17.2	8.9	10.4|	11.8
Ireland*	15.2	20.3	31.4	2.8	4.3	15.5	-	-	-
Netherlands	14.4	17.9	24.0	11.9	13.4	19.2	5.7	4.7	5.4
New Zealand	14.9	20.8	29.4	9.6	13.8	13.8	-	-	7.1
Norway	8.8	14.4	19.0	13.2	18.9	24.8	5.7	8.2	10.5
Portugal	5.8	-	19.3	5.4	-	16.0	2.3	-	6.1
Spain	14.9	21.2	27.3	10.6	13.5	19.8	4.0	4.5	6.2
Sweden	7.9	8.7	13.7	11.3	11.4	17.9	6.5	6.1	8.0
Switzerland	5.7	6.4	7.6	10.6	12.1	15.3	5.2	6.4	7.4
United Kingdom	-	16.1	26.9	-	4.7	9.4	-	-	4.8
United States	33.0	36.2	34.6	14.5	17.1	21.5	8.2	8.5	11.1
Average of above	14.4	16.8	24.2	11.0	12.8	18.7	5.5	6.5	8.1

-: missing value.
* Data for 22-25 age group include ages 26-29, and applies to 1995
1. Net enrollment rates based on head counts.
2. Vertical bars indicate a break in the series.

Sources: OECD (1997a) and OECD (1998a).

These patterns reflect increased rates of staying on and of returning, both to obtain additional qualifications and later entry.[3] With respect to the latter, there are distinct country patterns. While OECD data on new university entrants show, for example, that young adults in their late teens and early twenties predominate in France and Ireland, a somewhat older group of new entrants, in their early to late twenties, reflects the norm in Denmark and Sweden. Canada, Hungary, and New Zealand show a wide range of ages at first entry, from the late teens to mid-twenties (see Table 2). The data do not yet

[3] Rising rates of participation of older adults have other, less favorable explanations as well: Increased rates of queuing, failure, and associated delays to completion of studies at least partly arise from programs and teaching poorly geared to the needs and interests of students or to the demands from the labor market. This point is examined in greater detail below.

permit analyses of trends in age at first entry,[4] but it is clear in some countries that new policies implemented or under consideration introduce changes that could alter the age distribution of university students. New first university degrees, introduced as bachelor's degrees in Denmark and Portugal and discussed in France, for example, aim to allow students to leave the university with a qualification short of a long first degree. The new degree structures open up possibilities for learners to alter the timing of university entry, exit, and

TABLE 2

AGE DISTRIBUTION OF FIRST-TIME UNIVERSITY ENTRANTS, 1996

	Age at:*		
	20th percentile	**50th percentile**	**80th percentile**
Austria	20.1	20.4	23.4
Canada**	18.9	20.0	26.5
Czech Republic	21.4	23.6	29.4
Denmark	19.8	21.4	26.5
France**	18.3	18.9	20.0
Germany	20.1	21.6	25.0
Greece	18.5	19.4	20.5
Hungary	18.0	20.3	25.3
Ireland	18.0	18.6	19.4
Netherlands	18.7	20.2	24.0
New Zealand	18.4	19.2	25.6
Norway	20.2	22.7	>29
Poland	19.5	20.6	23.2
Sweden	20.2	21.3	23.4
Switzerland**	20.1	21.2	23.2
Turkey**	18.4	19.9	23.1
United Kingdom	18.5	19.5	24.3
United States	18.3	19.0	24.2

* 20/50/80 percent of new entrants are below this age
** 1995

Source: OECD (1998a) and earlier volumes.

[4] Research in some countries reveals that those who delay entry into university studies are less likely to succeed. The interpretation and explanations for these results are several, but it seems likely that further adaptations in teaching to take into account the particular circumstances and motivations of these students could improve success rates and progress to degree completion. For the findings, see, e.g., U.S Department of Education (1997) and OECD (1997b).

return. On the other hand, in New Zealand, where there is a long tradition of adult participation in tertiary education, a "study right" policy provides universities and other tertiary-level providers with larger tuition subsidies for students who are enrolling for the first time and are *under* 22 years old (the "study right" applies for three years). The policy aims to encourage institutions to enroll young students.[5]

Further, a lifelong learning perspective redefines an orientation for study programs in the first years of tertiary education, extending back to lower levels of education and forward to adult needs and learning. As participation rates for young adults continue to rise throughout the OECD area, the principal transition to work for an increasing proportion of the age group takes place after tertiary, not secondary, education. If there is a public interest in enabling everyone to acquire the skills and abilities needed in a dynamic economy, this interest increasingly will be met through even higher rates of participation in tertiary-level studies. In the first instance, universities and other tertiary education institutions will be expected to assume a greater responsibility for those who may (or should) now aspire to studies at this level but have, until the present, not entered programs. This responsibility will extend to encouraging and enabling all who enter tertiary education to learn and succeed; the costs of failure in higher education for the individual, the economy, and society are now too great. The responsibility extends even further, to preparing individuals to undertake continuous learning and re-learning in a graduate labor market likely characterized by more frequent and varied job and career changes. Notwithstanding the need for universities to widen learning options for returning graduates, first-degree study programs will need to help students develop the capacity to adapt and to learn in new areas and new ways.

Taken together, these developments and policy interests suggest that a lifelong learning perspective in university and other tertiary education programs now takes on several dimensions:

- **foundation learning** for all students of any age, a long-standing aim to prepare higher education students for further study as well as entry into working life—but now conceived more broadly to encompass the need to better prepare graduates to undertake re-learning as they experience over their lifetime more frequent and more substantial changes among career tracks and fields

[5] The policy has been reconsidered because it has had the unintended effect of generating lower levels of public funding to institutions serving target populations.

- **expanded options** for young secondary school graduates who now require advanced-level skills, knowledge, and dispositions to be able to take advantage of emerging employment opportunities and be prepared to meet demands in the economy and society
- **second chance** for older adults who missed the opportunity when they were younger
- **second bite** for graduates, now seen as the most rapidly growing need and, as indicated, a possible consequence of new policies under discussion or implemented in several countries

Not all these dimensions are new to universities, but underlying changes in the economy and society, as well as in the profiles of learners, combine to recast the more conventional dimensions and to greatly increase the number of students who come under the less conventional ones. In most countries, demand—individual and social—is giving weight and re-definition to all these dimensions; all of them will need to be dealt with in programs, teaching, and learning. And, perhaps most significantly, differences in profiles and motivations of learners in individual programs and learning options are now as likely to be driven by demand as by the design and aims of the programs and options. Thus, for example, large proportions of full-time students, are working part- or full-time; graduates, first-time students and adults with no specific degree aims may be found in the same study program; and open learning or nondegree courses are no longer followed only by those without degree aspirations. The reality is that all teaching will need to take into account diversity in interests and aims and a reinforced and reformulated demand for lifelong learning.

The value of applying this more complex, broadly based and widely applicable view of lifelong learning to the teaching mission in the university is to stimulate new thinking and reflection and to change the terms of discussion with a view to help ministries, as well as institutions, develop and refine policies for programs, teaching, and learning. Some of the implications are identified and developed in the next section.

IMPLICATIONS FOR TERTIARY-LEVEL PROGRAMS, TEACHING AND LEARNING

Among others, the following four areas can be identified for attention and development in response to a new lifelong learning imperative in higher education:

- accommodating diverse patterns in the timing of studies
- introducing new pedagogical approaches, tools, and conditions
- transforming curricula
- focusing on learning and success

An implication for higher education of diverse patterns in the timing of entry, exit, and return—a pattern of lifelong learning—is that the relationship between the learner and the university continues later into adult life. Current students can be expected to return, in increasing numbers, to complete degree programs or to undertake further studies. On the basis of analysis of results of the International Adult Literacy Survey (IALS), undertaken by several OECD countries, that flow of returners could present a wider range of skills than might otherwise be assumed. For the IALS survey, "literacy skills" are defined as the ability to understand and employ printed information in daily activities and to use such information to achieve one's goals and to develop one's knowledge and potential.[6] Performance on the tests has been grouped into five literacy skill levels, Level 1 being the lowest and Level 5 the highest. According to those who have prepared the tests, Level 3 is regarded as a minimum level of competence needed to cope with the complex demands of everyday work and life. For 16- to 65-year-olds who have completed tertiary education, the proportions who fall below this threshold (on the prose scale) are above 10 percent in the seven countries examined, and, in some countries, the proportions exceed 30 percent (see Table 3).

The reasons for these proportions and inter-country differences are many, and the IALS tests provide only one set of measures of what adults know and are able to do. Whatever the explanations and measures, the findings lead to an important set of questions for universities and other tertiary education institutions as they assume even greater responsibility for lifelong learning: How can programs and teaching minimize the numbers of graduates who lack these skills and other requisite knowledge and dispositions? How can all programs and teaching—from regular degree studies to more specific modules—be adapted to take into account (indeed, boost) the varied levels of skills, knowledge, and dispositions represented in the pool of learners returning to higher and tertiary education as older adults?

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6 Literacy proficiency was assessed in three domains: prose, document, and quantitative. Details on definition and methodology are contained in the reports emerging from this work, among which are OECD and Statistics Canada (1996, 1997) and Murray, Kirsch, and Jenkins (1997).

TABLE 3

PERCENTAGE OF ADULTS WITH TERTIARY EDUCATION AT EACH LITERACY LEVEL (PROSE SCALE), 1994*

	% with level of education	Level of performance on IALS prose scale: Level 1/2	Level 3	Level 4/5
		(percentage)		
Canada				
University	16	11.0	29.8	59.1
Other tertiary	17	25.3	46.9	27.7
Germany				
University	12	21.0	39.4	39.6
Other tertiary	4	18.1	49.2	32.6
Netherlands				
University	18	13.2	52.3	34.5
Other tertiary	a	a	a	a
Poland				
University	7	41.6	42.0	16.4
Other tertiary	7	50.6	40.7	8.6
Sweden				
University	12	7.0	32.2	60.7
Other tertiary	13	10.8	43.4	45.8
Switzerland (French)				
University	14.	18.2	49.4	32.4
Other tertiary	9	32.6	56.8	10.7
Switzerland (German)				
University	7	27.8	46.7	25.5
Other tertiary	11	36.9	54.1	9.0
United States				
University	22	16.8	35.7	47.5
Other tertiary	15	34.3	39.9	25.8

*The data are based on tests administered in each country to samples of 2,500 to 3,000 adults broadly representative of the civilian, noninstitutionalized population aged 16-65. Individuals provided background information and described learning activities in an interview of about 20 minutes; literacy was assessed on the basis of responses to a set of tasks of varying degrees of difficulty. The test booklet was designed for completion in about 45 minutes. The section covering prose literacy was intended to assess the level of knowledge and skills to understand and use information from texts, including editorials, news stories, poems, and fiction. Details on methodology and scaling are provided in the publications from the survey.

Source: OECD and Statistics Canada (1996).

New pedagogical approaches are also needed, both to respond to diversity in the backgrounds, learning styles, and interests of students, young as well as older adult, and to promote and sustain the skills and dispositions needed by all to be lifelong learners. In one of the few comprehensive studies of how first degree courses do or do not prepare students as lifelong learners, Philip Candy and his colleagues identify a number of promising and effective teaching strategies (Candy, Crebert, and O'Leary 1994):

1. peer-assisted and self-directed learning
2. experiential and real-world learning
3. resource-based and problem-based teaching
4. development of reflective practice and critical self-awareness
5. as appropriate, open learning and alternative delivery mechanisms

These approaches are not new to universities: Peer tutoring has been introduced into the first year of university studies in France, and work-based learning may be found in some programs and institutions in France, the U.K., and the U.S. Significant numbers of part-time students are found both in countries where such a status is officially recorded and in countries where full-time students actually undertake less than a full courseload (see Table 4). Distance learning, sometimes drawing on information and communications technology (ICT), has developed in many forms in Australia, New Zealand, Japan, the U.S., the U.K., and Germany, among other countries.

Notwithstanding effective and promising initiatives, the experience across OECD countries is uneven, if not limited (Teichler 1998). While students and adult learners in many countries are expected to follow courses with minimum supervision, methods in study programs and other learning modules tend not to feature resource-based or problem-based teaching or to encourage and support self-directed learning, reflection, and critical thinking. Further, the potential of ICT to help foster learning and to respond to new lifelong learning demands has thus far been weakly and unevenly realized, owing to too little investment in instructional design and staff development. Generally, teaching practices and orientations remain poorly suited for addressing the needs and learning styles of the "new" lifelong learners in universities and other tertiary education institutions; insufficient to develop in the more "traditional" student a broader orientation toward lifelong learning; and to some extent insensitive to the reality of the diverse profiles of students (even so-called "traditional" students) now found in classrooms, laboratories, or distance learning course modules.[7] As universities and other tertiary education institu-

[7] For example, in Denmark, "regular" students may sometimes attend comparable open education courses in the institutions in which they enroll. In France, new policy initiatives promoting lifelong learning in higher education call for a new type of award for which credit could be given in regular degree programs.

tions increasingly cater in the same study program or learning option to a mix of students with different profiles and different interests, the challenge will be to make use of a combination of methods in every program or option.

To realize these kinds of changes, policy targets might be identified in several areas. A key target is staff policy, including new recruitment criteria (as has been discussed with regard to pedagogical preparation for university and other tertiary education staff in Germany) and the evaluation of and profes-

TABLE 4

DISTRIBUTION OF STUDENTS BY MODE OF ENROLLMENT AND SEGMENT, 1996

	University		Other Tertiary	
	Full-time	Part-time	Full-time	Part-time
Australia	60.1	39.9	20.2	79.8
Austria	100.0	a	90.6	9.4
Belgium	99.1	9.9	81.8	18.2
Canada	69.0	31.0	62.0	38.0
Czech Republic	91.8	8.2	100.0	n
Denmark	100.0	a	100.0	a
Finland	100.0	n	100.0	n
Germany	100.0	a	83.1	16.9
Greece	100.0	a	100.0	n
Hungary	68.3	31.7	a	a
Ireland	89.7	10.3	66.2	33.8
Italy	100.0	a	100.0	a
Japan	91.5	8.5	96.4	3.6
Korea	100.0	n	100.0	n
Luxembourg	100.0	n	m	m
Mexico	100.0	a	100.0	a
Netherlands	a	a	80.9	19.1
New Zealand	66.0	34.0	47.6	52.4
Norway	82.3	17.7	72.5	27.5
Spain	m	m	100.0	n
Sweden	72.7	27.3	x	x
Switzerland	100.0	a	45.7	54.3
United Kingdom	73.5	26.5	39.0	61.0
United States	70.4	29.6	36.0	64.0
Country mean	87.6	12.4	73.4	21.8

a category does not apply
m data not available
n magnitude is negligible or zero
x data included in other category or column

Source: OECD (1998a).

sional development for teaching, particularly in the extent and effectiveness of use of different methods and teaching support (as for example, in the Flemish Community of Flanders, where some staff resources are set aside at universities specifically to provide support for students who can benefit from augmenting conventional teaching with different methods available in student learning centers). Incentives can be more closely tied to the development and effective use of new teaching skills and approaches. New conditions for teaching and learning represent yet another important policy target in support of new pedagogical approaches, and here a lifelong learning orientation may favor new choices. For example, a major university in Australia considered the choice between building or re-equipping conventional classroom and lecture centers or finding a new balance through information technology-based instruction to support learning in different ways and at different places than in the past. Another option, encountered in two universities—one in the United Kingdom and one in the United States—is a purpose-built facility that brings together under one roof library, computing, and student services and academic support and student activities, as well as social activities and services commonly found in student centers. In these two institutions, the facilities operate from early morning until well into the night. In the U.K. university, the facility figures prominently in the organization of teaching and learning—first-year students follow course modules that introduce them to resources and support on site and aim to equip them for "learning in a constrained environment." While that phrase referred to constraints on university resources, the approach adopted implicitly responds to constraints on student time. As expressed in one country participating in the OECD work, "students are busy, too." That statement was made in reference to younger adults, but it applies with equal if not more weight to "new" lifelong learners in higher education. In all these areas, such initiatives as exist need to be broadly conceived to embrace the motivations, learning styles, and backgrounds of a wider profile of learners, and to be extended widely in specific modules organized for recurrent learning, as well as in regular study programs.

A third area for development and policy attention is to transform curricula to embody in graduates the capacities to be lifelong learners. This is not only, or even primarily, a matter to be dealt with in only certain types of programs or institutions. As already suggested, all students, whether in university first degree programs or other tertiary education short-cycle vocationally oriented programs, will need to be lifelong learners in the broadest sense. On several accounts, current programs and practices do not enable and encourage students to become lifelong learners (Candy, Crebert, and O'Leary 1994). Candy and his colleagues conclude that

> courses which enhance lifelong learning: (1) provide a systematic introduction to the field of study; (2) offer a comparative or contextual framework for the viewing of the field; (3) seek to broaden the student and provide generic skills; (4) offer some freedom of choice and flexibility in structure; and (5) provide for the incremental development of self-directed learning. (p. xii)

This listing conveys a sense of the new orientations needed. An emphasis is on organizing and conceiving study programs in such a way as to prepare graduates to take on responsibility for their own learning. The need to do so is evident. According to a recent survey of learning undertaken in Canada, those in the labor force (or expecting soon to enter it) already spend about six hours per week in employment-related *informal* learning, or about double the average time they spend in formal education (Livingstone 1998). Such informal learning activity will likely increase, and steps should be taken to prepare individuals to make the most effective and efficient use of the considerable time and other resources invested in it.

The realization of these changes in content and organization would require, in the first instance, an opening up of first university degree courses now conceived only in relation to specific professions or career tracks, and a rethinking of the contents and methods of those courses now conceived in this way but already used as "general education" for a wider range of employment destinations and as a "foundation" for later changes in career tracks. The initiative undertaken by the French, German, Italian, and U.K. ministers to "harmonize" a first, short qualification (the Sorbonne Agreement) provides an opportunity for reflection, redefinition, and reorganization of studies, as does the introduction of new bachelor's degrees in Danish and Portuguese universities. In Japan, the United States, and the United Kingdom, where the first university degree has a more general orientation, initiatives to strengthen teaching and learning have involved closer attention to clarity in learning aims, emphasis on cross-curricular learning and skills, and improved coherence and better integration between general and specialized elements in study programs. These opportunities and initiatives offer scope to modify the contents and organization of learning in the first university degree to better prepare graduates to be lifelong learners. At the same time, they can lead to a different content and organization for studies that come after this first qualification: more focused, spanning disciplinary boundaries and exploiting knowledge bases within and outside of the university.

Finally, the new lifelong learning imperative emphasizes learning, not teaching. In this perspective, the measure of quality is the extent to which younger and older adults actually learn. For students following first degree programs, failure is not acceptable; it is costly and demotivating at a time when the need is to develop in everyone a capacity and desire for learning and re-

learning over a lifetime. The scale of the problem is evident. Survival rates, for example, vary from 90 to 35 percent across a selected set of OECD countries. Survival rates do not appear to be associated with overall participation rates (drop-out seems relatively low in the United Kingdom and Japan, for example, where participation rates are above the OECD average, and relatively high in Austria, where overall participation rates are below average). There appears to be a slight association between drop-out rates and the length of program, in that those countries with long first university degrees show somewhat lower survival rates than countries with short first university degrees (see Table 5). The pattern, however, is not uniform and does not provide a view of changes in drop-out rates over time. On this last point, in Germany and Belgium (French Community), among other countries, rates of drop-out increased over the 15- to 20-year period to the early 1990s. In both systems named, this period was marked by growth in participation in tertiary education (Moortgat 1996).

At present, too little is known about the nature of the drop-out and failure problem. In some cases, the numbers themselves are misleading; perhaps a quarter of those who drop out in Italy may be students who were registered but neither attended classes nor sat examinations. Further, failure in the first year is not the same as drop out, and some who drop out of one program may do so to complete studies in another program (see Table 6). In both cases, it is possible to refer to an eventual successful outcome, even if questions can be raised about effectiveness, efficiency, and costs of provision and organization of studies. In some cases, learners may not seek a qualification; they may leave to take up employment before completing degree requirements and perhaps wish to return at a later stage. The numbers are sufficiently large to suggest more serious difficulties with programs of teaching and learning for a much more diverse population of students. In a number of countries, an emerging policy position is that the "university experience" is not enough; a high failure rate increasingly will be seen as an indicator of programs and teaching poorly adapted to diverse learning needs and interests rather than an indicator of quality and quality control. Paradoxically, the former is often seen as the relevant criterion for quality (learning outcomes) in more specific, sometimes nondegree learning options offered to adults. This is less often the case in regular first degree study programs.

TABLE 5

RATES OF SURVIVAL AND DROP OUT IN UNIVERSITY-BASED EDUCATION

	Year of Reference	Year of Entry Complete	No. of Years to	Method	Source	Survival Rate	Drop-out Rate
Australia	1996	1994	3	Cross-section cohort	OECD database	65	35
Austria	1996	1989	7	Cross-section cohort	National calculation	53	47
Belgium (Flemish Community)	1996	~	~	Cross-section cohort	OECD database	63	37
Czech Republic	1995	1992	4	Cross-section cohort	OECD database	79	21
Denmark	1995	~	~	Synthetic cohort	National calculation	67	33
Finland	1996	1985	5	True cohort	National calculation	75	25
France	1995	1991	5	Cross-section cohort	OECD database	55	45
Germany	1995	1990	6	Cross-section cohort	OECD database	72	28
Hungary	1996	~	~	Synthetic cohort	National calculation	81	9
Ireland	1995	1992	4	Cross-section cohort	OECD database	77	23
Italy	1996	1991	6	Cross-section cohort	OECD database	35	66
Japan	1995	1992	4	Cross-section cohort	OECD database	90	11
Mexico	1996	1992	5	Cross-section cohort	National calculation	68	32
Netherlands	~	~	~	True cohort	National calculation	70	30
New Zealand	1995	1992	4	Cross-section cohort	OECD database	76	24
Portugal	1993	1991	3	Cross-section cohort	OECD database	49	51
Switzerland	1996	1991	6	Cross-section cohort	OECD database	74	30
Turkey	1995	1992	4	Cross-section cohort	OECD database	55	45
United Kingdom	1996	~	~	Weighted cross-section	National calculation	81	19
United States	1994	1990	4	True cohort	National calculation	63	37

Source: OECD (1998a).

TABLE 6

NONCOMPLETION RATES IN TERTIARY EDUCATION IN SELECTED OECD COUNTRIES[1]
(VARIOUS YEARS, PERCENTAGES)

	Fail in first year	Fail to complete program	Fail to complete any program
Belgium (Flemish Community), 1994			
University	47	34	
Non-university (one-cycle)	50	39	
Belgium (French Community), 1992-94			
University	56–62	57	
Non-university	60	38	
Denmark, 1995			
Tertiary		40	23
France, 1993[2]			
Total tertiary, excl. Sections de Techniciens Supérieurs		27	
University Institutes of Technology		20	
Italy, late 1980s			
Tertiary			64
Germany, 1993-94			
Tertiary			29–31
United Kingdom, 1995			
Tertiary			6–13

1. Figures have been drawn from several sources, and are therefore subject to differences in coverage and methodology. For definitions and methodology, readers are referred to the sources mentioned.
2. The figures refer to those who changed programs or dropped out after the first year; first-cycle only.

Sources: Belgium (French Community), Germany, Italy, United Kingdom: Moortgat (1996); Belgium (Flemish Community): Verhoeven and Beuselinck (1996); Denmark: Ministry of Education (1997); France: *Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche, Les entrants et les accédants* (1993) (tabled data supplied for OECD "Thematic Review of the First Years of Tertiary Education"). See also OECD (1997a).

An emphasis on learning and success also opens up the university to play a more active role in bridging the gap between secondary education and tertiary-level studies and, indeed, among all providers and levels of education. Its most immediate implication is for the university to assume a shared responsibility with secondary education for the student through, for example, greater cross-level sharing of teaching and deeper, more varied contexts and methods for teaching and learning at the tertiary level. As noted by Wagner (1998), such a direction is challenging but not new. Counseling and information initiatives in secondary schools and support for student-centered teaching and learning in universities has figured in recent initiatives in France and Belgium (Flemish Community). In some U.S. institutions, the distinction between "remedial"

and introductory "general" education may be blurring. What is in question here is not whether students are well-prepared for study in the university. Regardless of their preparations, the interests and learning styles in the larger pool of students are more varied than in the past, and the proportion of the adult population seeking and participating in study and learning options of all types based in universities and other tertiary education institutions will likely increase over time.

CONCLUSION

A lifelong approach to learning emphasizes the acquisition, use, and re-learning of knowledge and skills throughout adult life. Given already near-universal completion of a full cycle of secondary education, as well as rising rates of participation in studies of all types beyond the secondary level, much of what young and older adults now seek is flexible learning options at the tertiary level—to commence, combine, upgrade, or augment their knowledge and skills. Yet, access to and success in available learning opportunities are uneven, and the range of options and their quality are limited. There are both gaps with respect to the target groups reached and, in some countries, relatively weak representation of older adults when viewed against a lifelong approach to learning. Information technologies, distance and dual-mode institutions, and new partnerships among providers and between educational institutions and employers and community-based initiatives represent key growth points. They require a new approach to the policy infrastructure for education. The infrastructure must support learning occurring in a variety of ways, at different times and in different places as well as new orientations reflected in programs, teaching, and learning in universities and other tertiary education institutions.

The argument in this chapter is that a new need for continuous learning over a lifetime is giving rise to demands from individuals, employers, and public interests to reshape the contents, organization, and methods of programs and teaching in universities and other tertiary education institutions. The demands go beyond conventional recurrent education for the highly qualified to encompass new opportunities for new learners and a new orientation in conventional first degree programs to prepare graduates to be lifelong learners in the broadest sense.

The demands will be met in different ways by different types of institutions and programs, and different approaches may be found and introduced in individual programs within the same institution. A pro-active approach for the university, as advanced in general terms by one participant in the Glion Colloquium, is to aim for a relatively smaller share of enrollment, education, and lifelong learning but to find ways to build up linkages of its efforts in each

of these areas. Such an approach could lead to an even more substantial contribution to meeting the new lifelong learning imperative in higher and tertiary education.

Whatever approach is adopted, every university will need to take into account wider developments in tertiary-level education and learning—indeed, in lifelong learning—not least to recognize the diversity in the profiles of qualifications, learning experiences, and interests of their own potential students and possible new links and interfaces with other education providers at the secondary, tertiary, and adult levels. One implication of the present context and policy drive favoring a lifelong learning approach is that it introduces an orientation and direction in which, as Alexander (1998) points out, the *complementarity of interests* in teaching and learning can be developed and supported. In this respect, no sector or set of institutions can set itself apart; policies will continue to promote solutions on a broader and cooperative basis.

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