

The Relationship between Funding and the University Curriculum

David RODGERS, United Kingdom

Key words: Funding, Curriculum, Delivery, Staffing.

ABSTRACT

The funding, structure and nature of the UK student intake into higher education is going through a period of change, putting great pressure on the Universities. We have progressed from an elite to a mass system of higher education. As a consequence traditional curricula and modes of delivery will have to be re-thought to satisfy the new criteria.

CONTACT

David Rodgers
Leeds Metropolitan University
Calverley Street
Leeds, LS2 8BU
UNITED KINGDOM
Tel: + 44 113 283 2600
Fax: +44 113 283 3190
E-mail: d.rodgers@lmu.ac.uk
Web site: www.lmu.ac.uk

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1. INTRODUCTION

The funding, structure and nature of the UK student intake into higher education is going through a period of change, putting great pressure on the University system. “A generation ago only about 10% of young people attended university, now 40% of young people aged between 18 and 30 participate in higher education courses. The Government hopes to increase this proportion to 50%. This increase in student numbers has been accompanied by 38% fall in resources per student over the last 12 years on top of a 20% fall in the previous 13 years”. (*Guardian Newspaper*) This change from an elite to a mass system has forced a re-think of the financial models used to fund higher education. The result is that the post war UK policy of paying a students course fees and providing a maintenance grant to cover living expenses is no longer operational. Students or their families now have to pay a proportion of tuition fees and provide living expenses.

Few embark on a full time course of study with the intention of failing, and very few now leave without some form of debt, most have a regular part time job to ease their financial problems. When considering which courses to apply an assessment is made of how hard the subject matter is and how much free time will be available within the timetable for paid employment. This is leading to fewer applicants for courses that students perceive as being hard to pass. Eventually these courses are deemed uneconomical because of low student numbers and closed down. The eventual result is a mismatch between the jobs market and the output of the Universities.

The following statistics illustrate the changes in student numbers and funding over the past decade, they have happened and higher education has to re-evaluate itself to ensure that it is cost effective and meeting the needs of modern society.

<u>Description</u>	<u>Academic Year</u>		<u>% Change</u>
	<u>1990/1</u>	<u>2000/1</u>	
Full Time Higher Education Students	1,150,000	1,850,000	+ 60%
Part Time Higher Education Students	340,000	401,000	+ 18%
Spending on Higher Education	£ 4,400 m	£ 5,250 m	+ 19%
Unit Cost per Full Time Equivalent Student	£ 6,580	£ 4,750	- 28%

To keep the UK competitive in the era of knowledge based economies the Government has decided that the funding councils must aim to ensure that:

- There is maximum participation in initial higher education by young and mature students. The official aim is 50% participation by the end of this decade,
- Standards of degrees and other HE qualifications should be at least maintained and assured and the effectiveness of teaching and learning enhanced;
- Arrangements for student support should be fair and transparent;
- Value for money and cost-effectiveness should be obtained in the use of resources.

These demands are to be met within the context of increasing student numbers, changing academic ability on entry to University and decreasing levels of funding. As a consequence of these changes traditional curricula and modes of delivery will have to be re-thought to satisfy the new criteria.

2. DELIVERY

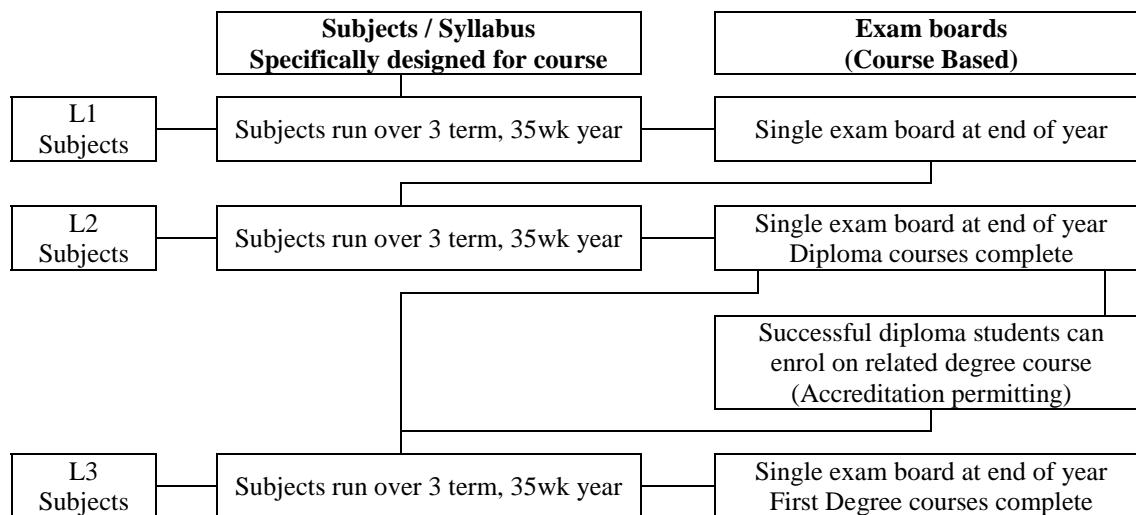
UK Universities are currently unable to set their own fees for the courses that they offer. Income can only be increased through more research grants (such funds are clearly intended to support the research, but they indirectly relieve pressure on other University finances), or other external sources of income. e.g. short courses, In-house Company training schemes, etc. In general, to meet the demands of the government in terms of student participation and yet remain financially viable changes must be made to the areas that Universities have control over. In the first instance the following topic area are likely to be addressed:

- Can delivery costs be reduced by modularising courses with common themes,
- Do we have a relevant portfolio of courses
- Do we have courses that don't share any common theme, if so should they be discontinued,
- Can we find new markets in which to sell our expertise,
- By modularising / discontinuing courses can we re-deploy staff onto more economic work or reduce staffing levels,
- Can the size of the estate be reduced?

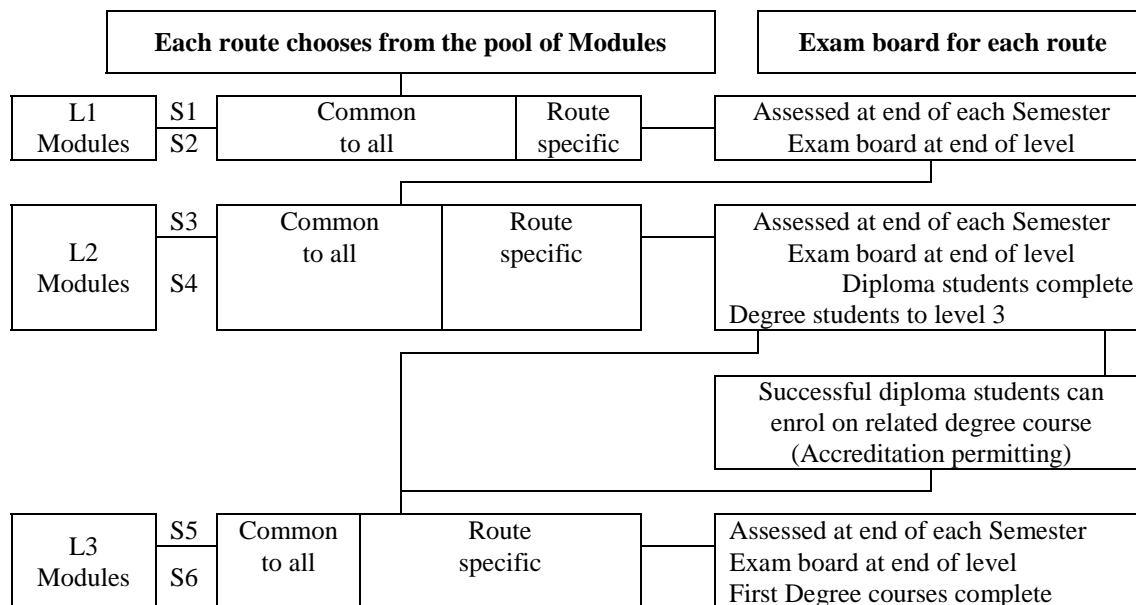
There must be flexibility within the delivery, should a course be run in either full time or part time modes of attendance, or could the timetable be arranged to accommodate both? Should delivery be in daytime hours or would it be more economical to run as an evening class. Could a course be delivered in the workplace as part of a company-training scheme?

The cost and nature of delivery is a function of the organisational framework within which it takes place.

Course Based, 3 Term Year



Modular Based, 2 Semester Year



Universities must develop their own identity to suit their own market, and not attempt to replicate those developed by the more mature institutions.

The main organisational models in the UK are course or modular based delivery within either a 3 term or 2 semester academic year.

The modular system allows routes through a scheme that would not be financially viable if they were run as stand alone courses. It facilitates student movement between routes in the early part of level 1, helping to reduce the attrition rate by offering a chance to transfer to an alternative route if they feel that their first choice was not correct. The downside is that

course and module ownership is no longer clearly defined. In a course based system the learning outcomes of a specific subject have been developed for a specific course. In a modular scheme a specific module will have to satisfy several routes through the scheme, resulting in learning outcomes that are likely to be less specific than for a subject dedicated to a specific route.

In 1980 the average Student/Staff ratio was 9:1, by 1998 this figure was 17:1. The implication of this is a trend towards larger class sizes and fewer small group tutorial sessions. One of the attractions of the Modular scheme is its ability to deliver the same information to larger numbers of students. In times of reduced levels of funding the economies of scale that can be achieved make this a very attractive proposition.

Delivery costs are related to the subject. In the UK the Higher Education Funding Council defines four funding groups with relative cost weightings between them:

Price Group	Description	Cost Weight	Example
A	Clinical stages of medicine and dentistry courses and veterinary science	4.5	Clinical Medicine
B	Laboratory-based subjects (science, pre-clinical stages of medicine and dentistry, engineering and technology)	2	Chemistry
C	Subjects with a studio, laboratory or fieldwork element	1.5	Geography
D	All other subjects	1	Philosophy

In the course-based delivery model subjects tend to have a well-defined place within a specific department; the department defines the price group a subject is placed in. In the modular system the price group placing is not so well defined as many different routes may take the same module. It may be possible to justify a price group of B for a module within a modular scheme, but in a course-based scheme the same subject will be delivered separately to each course. Its price group banding will vary with the course. In some it may be a B in others a C. Modular schemes may force routes through to adopt unsuitable modules for reasons of economics and commonality.

A percentage of students will always drop out before completing a course; in the past this was usually due to academic failure and was part of the mechanism that helped Universities to maintain academic standards. It was not perceived as a threat to funding. The drive to a mass higher education system has led to a large increase in student numbers from families with no experience of higher education. Very often their families can give no financial help and are unable to empathise with the problems their student offspring are experiencing because they have not been through it themselves. These types of problems may lead to high drop out rates that are not occurring as a result of an inability to achieve an academic standard, but still exacerbate the funding problems of the University.

Unfortunately if a student fails the first year of a 3-year course the University loses 2 years of income from that student. When funding was more generous and Universities could be more selective with their intake this was acceptable. But as a consequence of reduced levels of funding and increased levels of attrition many academic institutions are changing their regulations to make it very difficult for students to fail a course for academic reasons. What the long-term consequences of this will be in terms of maintaining professional standards are not yet clear.

Many UK Universities now organise the academic year around two 15 week Semesters, with modules being taught and assessed within a single semester. The University academic year starts Semester 1 at the beginning of October, with approximately 11 weeks of study up to the Christmas break.

Semester System within UK academic year												
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Semester 1 & Exams 13 wks & 2 wks exams <i>(Teaching effectively ends at Christmas. e.g. 11wks)</i>			Semester 2 & Exams 12 wks & 3 wks exams									
Module delivered in a semester			Module delivered in a semester									
3 Term System within UK academic year												
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Term 1 11 wks		Term 2 11 wks		Term 3 6 wks & 3 wks exams								
Module delivered over an academic year												

After the break students are expected to do a further 2 weeks study followed by 2 weeks of exams and an inter semester week, with semester 2 commencing in the second week of February. In contrast the majority of level one students are coming from an educational system based on three terms, with each subject being taught and assessed over the full academic year.

The term system provides for 28 weeks of teaching and 3 weeks of exams, the semester system effectively allows for 23 teaching weeks and 5 weeks of examinations. This implies 18% less teaching and 66% more examination time over the academic year. A semester 1 module effectively has to be delivered in 11 three-hour sessions and a semester 2 module in 13 three hour sessions. If a student misses a single session they have missed 9% of the subject matter. In a 3 term system a module would be delivered over 28 two hour sessions, miss a session and you have missed 3.5% of subject matter.

Students need time to absorb information, a semester system that demands that a module is taught and assessed within a single semester is placing too much pressure on students who are used to the 3 term 28 week teaching year. The semester system does not fit in well with either the UK academic year or the expectations of the students.

3. RESEARCH

Every five years the UK Higher Education community goes through a process called the Research Assessment Exercise (RAE):

“The main purpose of the Research Assessment Exercise (RAE) is to enable the higher education funding bodies to distribute public funds for research selectively on the basis of quality. Institutions conducting the best research receive a larger proportion of the available grant so that the infrastructure for the top level of research in the UK is protected and developed. The RAE assesses the quality of research in universities and colleges in the UK. It takes place every four to five years and the next exercise will be held in 2001. Around £5 billion of research funds will be distributed in response to the results of the 2001 RAE.” (HEFCE)

The RAE has been very successful in raising the quantity of research in the UK, but much of this is research for research’s sake. By making the RAE the only mechanism that directly relates performance to reward the importance of other aspects of University life has been reduced. Get a good research rating and the Government will reward you with an increased share of the research fund, do well in only teaching and the Government will give you a pat on the back but no increase in funding. Institutions inevitably concentrate their efforts on what brings in the most money, so there is little point in being good at teaching and every point in being good at research.

The top research rated Institution in the UK currently receives approximately £121,611,000 income from industry and research, a typical Institution at the bottom end of the scale receives approximately £1,145,000. Both institutions receive the same amount of funding per student from the government. A high research rating provides more funding for staff, which gives a better Student/Staff ratio. The more motivated students from families with a track record of higher education are attracted to these institutions. Most will successfully see the course through to completion.

Institutions that do not have a high research rating cannot fund large numbers of academic staff, resulting in poorer Student/Staff ratios. The students that enrol on their courses tend to be of lower proven academic ability, with a high proportion coming from families with no higher education track record. The resultant drop out rates is high by UK standards.

Rank	“A” level entry points	Student/Staff ratio	Research rating	Teaching rating	Drop Out rates (%)	Income from Industry and Research (£'000)
1	29.6	4.9	5.1	23	2.4	121611
12	25	9.3	4.3	22.9	5	26681
18	24.8	12	4.1	21.7	5.6	21931
28	25.4	11.4	4.3	22.1	6.5	51266
40	22.6	14.1	3.7	21.2	6.7	10723
86	13.5	20.1	2.0	19.7	24.3	1861
90	11.5	23.3	2.2	19.4	35.8	425
93	11.2	16.2	1.9	21.5	25.1	1145

4. CONCLUSION

In the UK Higher education refers to courses leading to a diploma, degree or postgraduate qualifications and encompasses both academic and vocational subject areas. The Government has declared that a vibrant Higher Education sector is essential to provide the “*Skills for a knowledge based economy*”. We are currently attempting to do this by retaining traditional academic standards in all institutions offering Higher Education.

The current funding regime only rewards success in research, forcing Universities to put their efforts into improving the research base rather than the standard of teaching. There seems to be an assumption that the academic skills needed to be successful in research are the same as those required by the key workers in the so-called knowledge based economy.

We are hoping to put 50% of the 18–30 age group through higher education by the end of the decade. This can only be achieved by making it more accessible and desirable to those sections of the population that don't have a track record in higher education. Throughout the 1990s the proportion of students from the most disadvantaged socio-economic groups remained static, with 80% of young people from "professional" homes and 14% from "unskilled" homes going to university. Students whose parents are classified as "unskilled" represent just 1.7% of the university total. We will not get these people into and successfully through a higher education course if we continue to reduce the student / staff ratio in the institutions that they are likely to attend.

There is a conflict between the overall aims of higher education and the aims of individual institutions. The change in the academic profile of the student intake is not being reflected in the delivery of the courses. The declared aim of the Government is to encourage diversity within the system while at the same time insisting that the only reward over and above the basic rate of funding given to all universities is for effort in research. Each institution is attempting to maximise its income, with the result that throughout higher education academic staff are being actively encouraged to put all their efforts into research at the expense of teaching. The result is a system that is out of balance. If we are to attract 50% of the 18-30 year age group into higher education the system must be made more inclusive, if we wish to maintain a research base of international standing the Universities must become exclusive.

There is clearly a conflict here. Nobody doubts that we need to produce people who have good research skills and high-level vocational skills, but they do not necessarily have to be the same person. Increasing the Student/Staff ratio, and the consequent reduction in student contact time may encourage the well motivated student to become a committed self directed learner, but the average first generation student will take advantage of the situation in a different way, increasing their chances of failure.

Some form of increased financial reward to institutions needs to be introduced that recognises good quality teaching in the same way that the research assessment exercise currently rewards good research. Universities can then build on their strengths, whether it is research or teaching, in the confidence that excellence in either one will be rewarded.