Case study 6

'Psycho-social aspect of nursing': Carl von Ossietzky University Oldenburg

The centre in Oldenburg is part of the local university but has a remit to service students of the Fernuniversität Hagen in Lower Saxony (the Fernuniversität is located in North Rhine Westfalia; it has to be kept in mind that educational issues in Germany are under Länder jurisdiction). This arrangement gives them leeway to develop their own programmes.

The course has grown from a local initiative, which was developed within the context of a scheme funded by the federal government to promote 'humanist psychology'. The centre contracted writers to write about the 'psycho-social aspect of nursing' (course title) to enable nurses to support patients in situations of distress. Even though the course was not free, nor part of a credit programme and participants received only a certificate, it attracted considerable interest. This was due to the fact that it covered an area generally neglected in the standard professional development programmes but of pressing importance in the field.[1]

Resource media: inputs and costs

Students were given six units of print material, each unit containing about sixty pages. Each unit was intended to be the focus during one month of the course. It required 15 hours of study time. This means that the self-study part of the course amounted to 90 student learning hours.

The initial funding under the 'humanist psychology' framework amounted to £6 800 and was almost entirely used to pay the authors to write the material. Using the standard assumption that 50 pages represent one unit equivalent (UE), the total material amounted to slightly more than seven UE and therefore, in its initial form, cost about £917/UE.

However, a significant feature of the course is that it has been regularly updated and renewed on a rolling basis. The costs for updating and maintenance were indicated at £3 400 in each year between 1990 to 1997. However, these costs include not only fixed costs of rewriting the course but also the variable costs of printing and semi-variable costs of administration and marketing.

---

[1] For more about the course concept see: Bernath U. and Fichten W., *Adaptation in distance education - new experiences from networking universities in Germany*, Open Learning, Volume 14, No. 1, February 1999 p. 45-50. For further Internet references see: http://www.uni-oldenburg.de/zef/literat/wwwveroe.htm

We can distinguish three phases during the lifetime of the course up to the time of writing: during the first years the course was drafted and the material written. In the second phase (1990 to 1992) the course was taught and run on an experimental basis at local level. Then from 1993 onwards the course has been adopted by a number of universities. The Centre for Distance Education at Oldenburg University would license the course to be taught by the contracting universities. The licence fee was £34 per student enrolled, for which in turn the Centre had to provide the set of six study guides to each student. Since the production cost per guide is unlikely to be higher than £1.70 per unit (or £10.20 per set) such contracts would generate the funds partly to recover the costs of the initial investment, partly to finance maintenance and further development.

Student support: inputs and costs

The face-to-face component of the course was high. Each month over the half year of its duration, corresponding to each topic, a weekend seminar was organised over two days for seven hours per day. The cost of the seminar can be inferred from the following breakdown of student fees and the attribution of the components to various cost drivers. (The cost attribution was made by the course manager.)

Table CS 6.1: Cost attribution of fees to different cost drivers

	Income	Costs	Cost (per seminar per student)	Cost per seminar[a]
Total fee per student	408			
Attributable to print		34		
Attributable to seminar		374	62	930
Administration and marketing		81	13.5	202
Tutorials		293	49	735

Notes: a: the calculation is based on the assumption of an average seminar size of 15; all cost in £'97.

The above table together with the information that we have on average 15 students per seminar allows us not only to estimate the cost per seminar but also the cost per hour for the tutorial, which is £731/14 = £52.50.

Costs and income

Besides the initial funding to help with the start, the course was intended to be self-supporting. Fees are set in a way to cover the seminar costs and to allow adapting and maintaining the course. The following table gives a summary of the development of the net costs. We treat the initial funding as sunk costs.

118

Table CS 6.2: cost and income development of the course

	Before	1993	1994	1995	1996	1997
Enrolment						
Oldenburg		30	40	40	40	40
Others		100	100	220	360	290
Oldenburg + others		130	140	260	400	330
Accumulated student no		130	270	530	930	1 260
Costs to Oldenburg						
Development and maintenance						
Development cost (Phase I 1986-89) treated as sunk cost	6 800					
Maintenance cost (Phase II: 1990-92)	10 201					
Maintenance cost (Phase III)		3 400	3 400	3 400	3 400	3 400
Added component:			10 201			
Subtotal Development + Maintenance	10 201	3 400	13 601	3 400	3 400	3 400
Presentation costs Oldenburg		11 221	14 961	14 961	14 961	14 961
Print cost (Oldenburg students)		306	408	408	408	408
Print cost (External students)		1 020	1 020	2 244	3 672	2 958
Subtotal production and presentation cost Oldenburg		12 547	16 389	17 613	19 041	18 327
Total cost to Oldenburg	10 201	15 947	29 990	21 013	22 441	21 727
Income to Oldenburg						
Income from fees from Oldenburg students		12 241	16 321	16 321	16 321	16 321
Income from licence to external students		3 400	3 400	7 480	12 241	9 861
Total income		15 641	19 721	23 801	28 562	26 182
Net income	-10 201	-306	-10 269	2 788	6 120	4 454
Accumulated net income		-306[a]	-10 575	-7 786	-1 666	2 788

Note: a: we treat the initial maintenance costs here as sunk costs; all cost in £'97.

119

The table indicates where the scale economies are lying: the course is taught in Oldenburg only to a small group of students, about 40 per year but sold to an additional 250 to 300 students per year. Each of those students pays £34 for the study pack. However, no costs are incurred in Oldenburg for teaching the course. Hence the £34 per student amount to £8 500 to £10 200 per year. Since the printing costs are likely to be considerably less (not more than £10.20 per set), the lion's share of this money can be re-invested and used to recover initial costs.

Cost analysis

The structure of the arrangement, which the Centre in Oldenburg has set up, is basically as follows:

The students' fee can be seen as consisting of two parts: the part attributable to cost of presentation (weekend tutorials) and the licence fee (i.e. £374 for presentation + £34 licence = £408 fees).
The licence fee is set in such a way that it allows for the partial recovery of development and maintenance costs. The licence fee for the whole printed material is £374 but the actual production cost of the printed material is £10.20 only. We therefore have a 'profit margin' of £23.80.

The biennial investment in maintenance, which completely updates the material, amounts to a yearly average cost of £3400. Hence an enrolment of 100 students would cover the ongoing maintenance and printing costs. Any enrolment above 100 would make it possible to recoup parts of the initial investment.

It is always difficult to apply the average cost formula to courses without definitive lifetimes, and where materials are updated on a rolling basis. We have elsewhere adapted the convention of assuming a notional life span of five years and treating the cost of maintenance as fixed costs. Applying this convention here we would get £17 000 as fixed costs of development for the whole of the printed matter. Each unit provides for 15 hours of learning (according to the learning logs of the participants). This leads to £17 000/90 =£189/SLH (Print).

Using the same assumption, treating the initial development costs as sunk costs and setting development costs at £17 000 (= 5 x maintenance cost) and using the actual cost the tutorials as unit costs, we get a lower limit estimate for the average cost per student:

$$AC = \frac{\text{Total cost}}{\text{Student number}} = \frac{£17\,000 + (£\,293 \times 1260)}{1260}$$

$$= \frac{£17\,000}{1260} + £\,293 = £13 + £\,293 = £\,306$$

If, however, we take the total cost of development and maintenance as costs into account and include the marketing and administration costs per student then we have:

$$AC = \frac{\text{Total cost}}{\text{Student number}} = \frac{£\,47\,600 + (£\,374 \times 1260)}{1260} = \frac{£\,47\,600}{1260} + £\,374 = £412$$