

教授의 講義에 대한 自己評價

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◇ 授業評價 方案에 관한 研究」의 내용 중 일부이다. 教授의 講 ◇
◇ 義에 대한 評價는 先進國의 경우 學生評價, 自己評價, 同僚 ◇
◇ 評價 등 여러가지 형태로 이루어지고 있으며, 우리 나라에 ◇
◇ 서도 大學教育의 內質化를 위해서 이 制度의 도입이 절실하 ◇
◇ 다는 意見이 많다. ……………〈編輯者 註〉 ◇

나는 과연 강의를 잘하고 있는가? 내 강의의 장점은 무엇이며, 단점은 무엇인가? 단점이 있다면 그것은 강의의 어떤 측면인가—강의준비의 不實, 빈번한 결강, 학점부여 기준의 막연성, ...? 이러한 질문은 대부분의 대학교수들이 學期가 끝난 뒤에 자기가 한 강의를 돌이켜 보면서 막연하나마 한번씩은 自問해 보는 질문이다. 이렇게 自問한 결과는 다음 학기의 강의에 또한 막연하나마 반영되곤 한다. 그러나 강의에 대한 이와 같은 自問은, 그것이 體系의 이 아니라는 점과 準據가 될 만한 질문의 구체적인 틀이 없다는 면에서 그 가치가 반감된다.

쉽게 정의한다면, 강의에 대한 自己評價란 교수가 자기의 강의의 능률성을 어떤 評定尺度를 사용하여 評定하거나 書面으로 陳述하는 것이라고 할 수 있다. 자기가 한 강의를 스스로 분석해 봄으로써 자기의 教授法을 세밀히 검토하여, 궁극적으로는 다음 강의의 質을 改善하는 데에 반영하고자 하는 것이다.

주로 미국에서 발표된 연구결과를 분석해 보면, 강의에 대한 자기평가는 교수의 수업개선에 상당히 도움이 된다는 결론에 도달하게 된다.

특히, 昇進이나 再任用 등의 자료로 사용된다는 위험(?)이 적을 때, 학생평가나 동료평가의 결과와 함께 사용했을 때, 자기평가는 교수개선에 상당히 유용하게 사용된다는 것이다. 그러나 자기평가의 결과가 再任用, 昇進 또는 昇給 등 行政的目的으로 사용될 것이 예상될 때에는 자기평가는 상당히 과장될 가능성이 높다. 예컨대, Centra(1973)가 미국의 5개 대학의 343명의 교수를 대상으로 한 자기평가 결과와 이들 교수에 대한 학생평가(21개 항목으로 된 평정척도) 결과를 비교해 본 결과 그 상관계수는 .21 정도 밖에 되지 않았으며, 한걸음 더 나아가 약 30%의 교수들의 경우 자기평가가 학생보다 높았으며, 평균 6%의 교수들은 자신들을 학생평가보다 낮게 평가하는 경향을 나타내었다. 이 연구를 실시할 때, 평가의 결과(자기평가 및 학생평가)는 교수 당사자만이 알게 될 것이라는 단서를 달았었다. 이러한 평정 상황의 조건을 감안한다면, 위의 결과는 어쩌면 당연하다. 만일 평가 결과가 昇進에 반영된다는 것을 미리 알았다면 自己評價는 더 높았을 것이고 학생평가와의 차이도 더 컸을 것이다.

이 연구결과는 교수의 자기평가를 行政的인 목적에 사용할 때에는 상당한 경계를 해야 한다는 것을 시사한다. 그러나 여타의 연구에서는 교수의 자기평가와 학생평가는 강의의 어떤 특수한 측면의 強點과 弱點을 가려내는 데에는 상당히 일치한다는 결과를 얻고 있다. 교수는 자기 강의의 長點과 短點이 무엇인지를 충분히 인식하고 있다고 말할 수 있다.

강의에 대한 自己評價와 學生評價간에 높은 상관관계가 없다고 하더라도, 이 두 가지 평가방식이 다년간 계속되고 누적되면 그 상관관계가 높아지는 경향이 나타날 것이다. 그것은 교수 자신이 자기의 강의를 자기평가 및 학생평가를 토대로 하여 점진적으로 改善해 나갈 가능성이 높기 때문이다.

講義에 대한 자기평가는 앞에서 언급한 것과 같이, 어떤 評定尺度의 형식을 취할 수도 있고, 書面陳述式의 방법이 될 수도 있다. 그러면, 자기평가에서 질문할 것은 무엇인가?

- ☐ 나는 교수라는 지위를 남용하여 학생들을 도의적으로나 사회적으로 알보지는 않는가?
- ☐ 나는 나의 교수라는 권위로써 假說이나 개인적인 意見에 불과한 것을 사실로 받아들이도록 강요하지나 않는가?
- ☐ 나는 학생들의 異見에 대하여 관용하며 인내하는 태도로 대하는가?
- ☐ 나는 강의시간에 학생들에게 의식적으로나 무의식적으로 반항하지나 않는가?
- ☐ 나는 학생들이 講義進度를 따라오지 못할 때 신경질을 내지나 않는가? 나는 진도가 느린 학생들을 빨리 탐지해 내어 격려를 해주는가?
- ☐ 나는 내가 가르치는 교과목을 정말 관심을 가지고 가르치는가? 나는 내가 가르치는 교과목에 대하여 더 研究하려는 자세를 가지고 있는가, 아니면 학생들에게 떠맡기는가?
- ☐ 나는 학생들에게 내가 가르치는 교과가 학생들의 전체 敎育課程에 통합되도록 노력하면서 강의하는가?

다음 表 A와 같은 自己評價尺度를 사용하면 대단히 유익할 것이다.

〈表 A〉 敎授의 自己評價 尺度

훌륭한 강의는 학습의욕을 고취시킬 것이다. 이 점이 바로 교수가 학습의 긍정적인 가치에 대해서 높은 열의와 의욕을 가질 필요가 있다는 뜻일 것이다. 이러한 사실을 염두에 두면 다음과 같은 질문은 우리 자신이 자문자답해 볼 만한 것들이 될 것이다.

- 1: 항 상
- 2: 가 끔
- 3: 좀 치 럼
- 4: 전 혀
- 5: 모르겠다

I. 평소에 나는—

- 1. 내 분야의 최근의 문헌에 대해 뒤지지 않으려고 노력했는가? 1 2 3 4 5
- 2. 학술회의 및 훈련에 참석하는 편인가? 1 2 3 4 5
- 3. 새로운 정보를 가지고 수업에 임하는가? 1 2 3 4 5
- 4. 더 좋은 교재와 참고자료를 찾는가? 1 2 3 4 5

II. 강의에서 나는—

- 1. 수강생들의 이름, 능력, 배경 등을 알리고 최선을 다하는가? 1 2 3 4 5
- 2. 모든 학생들의 수준에 맞는 강의가 되도록 노력하고 있는가? 1 2 3 4 5
- 3. 학생들이 즐거운 마음으로 다음 수업을 기대하도록 하고 있는가? 1 2 3 4 5
- 4. 학생들에 대한 나의 기대가 무엇이든 명백히 알고 있는가? 1 2 3 4 5
- 5. 질문 및 토론을 격려하고 요구하고 있는가? 1 2 3 4 5
- 6. 학습목표가 얼마나 잘 달성되었는가를 평가하고 있는가? 1 2 3 4 5
- 7. 성적평가를 공정하게 한다고 자처하고 있는가? 1 2 3 4 5

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|---|---|---|---|---|---|
| 8. 부진학생에 대해 관심을 가지고 지도하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 9. 학생들이 따라오지 못한다고 생각될 때 수업 방법을 바꿔 보기도 하는가? | 1 | 2 | 3 | 4 | 5 |
| 10. 최종 성적을 어떻게 판정하는지를 정확히 설명해 주는가? | 1 | 2 | 3 | 4 | 5 |
| 11. 자기 성적을 보고자 하는 학생들을 위하여 정확하고 능률적인 기록을 보관하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 12. 학생들이 제출한 과제물을 신속히 검토하여 그들이 잘했는지를 확인하도록 곧 돌려주는가? | 1 | 2 | 3 | 4 | 5 |
| 13. 시험을 교수활동의 일부분으로 사용하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 14. 해마다 같은 시험문제는 피하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 15. 한 강의의 여러 영역에서 난이도가 비슷한 다른 검사를 사용하는가? | 1 | 2 | 3 | 4 | 5 |
| 16. 학생들이 찾아오거나 지도를 받으러 오는 업무 시간은 규칙적으로 잘 지키고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 17. 학생들을 판에 박은 듯한 전제로 받아들이는 것이 아니라 개인으로 존중하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 18. 교실수업을 충실히 하기 위해서 도서나 도서파제를 활용하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 19. 학생들이 인생관을 수립하는데 도움이 될 독서를 권장하고 있는가? | 1 | 2 | 3 | 4 | 5 |
| 20. 강의나 토론에 참고도서를 추천해 줌으로써 학생들에게 시범을 보여 주는가? | 1 | 2 | 3 | 4 | 5 |

表 A는 교수가 學習의 긍정적인 價値에 대한 열의와 의욕을 가질 필요가 있다고 강조하고 있다. 表 B는 교수가 자기의 강의개선에 필요한 가능한 조치가 무엇인가에 대한 自問들이다. 이 表에 스스로 응답함으로써 교수는 자기강의의 長短點을 확인할 수 있고 개선되어야 할, 또는 강화되어야 할 측면을 명백히 할 수 있다.

위에 제시한 質問과나 道具들은 물론 양심적이고 솔직한 태도로 사용할 때에 도움이 될 것이다. 대부분의 대학교수는 자기의 단점에 정면으로 대응하는 솔직함이 있다고 볼 수 있으나 강의개선이 가장 시급한 사람일수록 이상과 같은 비교적 온건한 도전에도 위협을 느끼는 경향이 있다는 것은 재미있는 사실이다.

〈表 B〉 敎授用 自己評價

이 양식의 근본목적은 당신이 보다 더 발전시키고 싶은 영역을 스스로 찾아내도록 도와주기 위한 것이다. 그리고 당신의 요구를 충족시키는 데 도움을 줄 수 있다고 생각되는 측면을 기술하였다.

다음은 5개 주요 강의영역이다. 각 영역의 문장을 읽고 해당 응답에 ○표 하시오.

A: 필요치 않다—나는 이 영역의 도움이 필요 없다.

B: 극히 약간—관심은 있으나 현재는 그렇게 급하지 않다.

C: 보다 더 정보가 필요하다—나는 이 방면에 관해 좀더 알고 싶다.

D: 당장 해 보고 싶다—나는 가능한 한 빨리 이 일을 해 보고 싶다.

교수전략(강의, 자율학습 등)

A B C D 명확한 목표, 적절한 예, 그리고 체계적인 방법으로 효과적인 강의를 하는 일

A B C D 강의가 보다 흥미롭고 명확하도록 하기 위하여 다양한 매체와 자료를 활용하는 일

A B C D 계획된 단원에 따라 독자적인 학습 기회와 소집단 활동 기회를 주며 그에 따른 자료를 지원해 주는 일

A B C D 바람직한 학습목표를 달성하기 위해 학생들에게 事前검사를 실시하고 여러 가지 다양한 선택적 활동들(자율적이고 또 집단적인)로 이끄는 교수 시스템을 디자인하는 일

검사와 학습의 평가

A B C D 지난 학기의 기준에 따라 학생들의 학과 지식의 정도를 측정할 수 있는 평가 기법을 활용하는 일

A B C D 학생들의 지식, 이해력과 응용력을 측정하기 위한 평가기법을 활용하는 일

A B C D 학생들의 지식수준, 지적 기능을 응용하는 능력, 계속적 학습에 대한 태도를 개발시킬 수 있는 측정기법을 활용하는 일

A B C D 문제분석 및 해결을 위한 학생들의 지식과 지적 기술을 사용할 수 있도록 하는 기법을 활용하는 일

토의 기법

A B C D 학생들이 내가 제기하는 문제의 요점을 알고 반응하도록 하는 일

A B C D 학생들이 스스로 주제에 관련된 질문을 생각해 내고 나에게 질문하도록 하는 일

A B C D 학생들에게 집단 내에서 자기비율 스스로 자유로운 상호관계를 발전시키기 위한 질문을 하도록 하는 일

A B C D 학생과 나 사이에 그리고 학생들끼리 서로 상호 교류하며 서로 도움이 되도록 하는 일

교수-학생 관계

A B C D 교실에서의 분위기를 학생들이 교수 프로그램을 잘 받아들일 수 있도록 조성하는 일

A B C D 학생과 좋은 관계를 형성하여 그들이 자신의 욕구를 확인하고 충족시킬 수 있도록 하는 일

A B C D 학생들의 개인적인 발전과 자신감을 갖도록 격려하기 위하여 건전한 대인관계를 개발시키는 일

A B C D 현실적 문제해결을 위한 활동에서 서로 협조할 수 있도록 학생들과 공동의 관심사, 공동의 장을 갖는 일

과목 구성

A B C D 학생들에게 주요 내용을 잘 구성되고 논리적인 형태로 제시하기 위하여 내 강의를 계획하는 일

A B C D 학생들이 스스로 느낀 자기욕구와 과목구성을 연관지음으로써 과목구성에 응용성을 주는 일

A B C D 구체화된 학습성취 목표에 기초하

여 과목을 개발하고 그 목표를 달성할 수 있는 다양한 방법을 학생들에게 제시하는 일

A B C D 과목을 체계적으로 개발하고 학생들에게 다양한 방법을 제시할 뿐만 아니라 그들의 반응을 수합하여 과목 재구성이나 개선에 반영하는 일

강의에 대한 대학교수의 自己評價가 만족할 만큼 타당한 것은 아니라고 해도, 이와 관련된 다른 자료를 보장한다면 강의개선에 상당히 유용하게 활용될 수도 있다. 몇 강의를 담당하고 있느냐 또는 수강생이 몇명이나 등은 차치하고라도 다음과 같은 정보가 보장될 수 있을 것이다.

1. 講義目標과 講義活動

- 본 강의에서 성취하고자 하는 강의의 목표는 무엇이며 어떠한 방법과 전략을 사용하였는가?
- 어떤 새로운 교수법을 시도해 보았는가? 얼마나 성과를 올렸는지, 그 증거는 있는가?
- 강의에 대한 다른 평가방법에서는 그 증거를 찾을 수 없는 어떤 성과나 사정이 있었는가?
- 강의에 대한 평가방법에서는 그 증거를 찾을 수 없는 어떤 성과나 사정이 있었는가?
- 교수의 강의목표는 학생들이 소속하는 대학 및 학과의 교육과정에 적합한 것이었는가?
- 교수는 본 강의를 학생들이 이미 수강한, 그리고 앞으로 수강할 강의와 통합·연결시켰는가?

2. 教科書, 參考書, 講義要綱

- 강의에서 사용한 각종 교수자료는 참신하였으며 적절하였는가?
- 교수자료는 수강생들의 수준에 맞았으며 자극적이었는가?
- 교수자료는 강의요강, 보충강의, 학습토론에 적합하였는가?

3. 講義노트

- 강의노트는 강의목표에 맞추어 적절하게 준비되었는가?
- 강의노트는 낱은 것이 아니라 참신한 내용으로 구성되어있는가?
- 적절한 예와 이론적으로 다양한 관점을 포함하고 있는가?

4. 研究課題

- 과제는 강의목표에 적합한가?
- 과제는 학습경험으로 타당한가 아니면 단순히 바쁘게만 하는 것인가?
- 과제는 강의요강의 다른 학습활동과 잘 조화를 이루고 있는가?
- 학생들이 제출한 과제물 보고서는 질적으로 얼마가 좋은가?

5. 考查와 學點成績

- 고사는 다양한 기능과 지식 정도를 평가하도록 만들어졌는가?
- 고사는 수업의 한 방편으로 활용되고 있는가? (예컨대, 誤答은 설명해 주었는가?)
- 성적은 어떻게 매겼는가? 그 기준은 무엇인가?
- 고사는 강의목표에 얼마나 적합하였는가?
- 대부분의 수강자가 설정된 목표를 달성했다는 증거가 있는가?

自己評價는 行政的 目的으로는 그 활용도에 한계가 있으나, 교수의 강의개선에는 분명히 도움이 된다는 것은 의심할 여지가 없다. 자기평가의 결과와 학생평가 등 다른 자료간의 차이가 있다면, 그것은 강의 개선에 있어서 한 가지 유용한 觸媒가 될 수 있을 것이다.

自己發展計劃

교수 자신에 의한 자기평가는 자기자신의 교수로서의 발전에 크게 도움이 될 수 있을 것이다. 그러나 자기평가가 自己發展에 도움이 되기 위해서는, 일정한 期間을 정해 놓고, 동료교수와

학생으로 평가위원회를 구성하고, 구체적인 自己發展計劃을 작성하는 등 체계적으로 접근해 나가는 것이 효과적이다. 일종의 계약이라고 볼 수 있는 이 자기발전 계획은 그 기간을 1년 정도, 평가위원회는 교수 자신이 지명하며, 계획서는 자기가 지명한 평가위원과 함께 작성해도 될 것이다.

자기발전 契約은 자기자신의 長點과 短點을 확인하고 진술하는 것으로부터 시작한다. 이것이 끝나면, 자기의 장점을 살리면서 단점을 개선해 나갈 수 있는 과제를 자기의 역할 범위내에서의 각종 활동을 중심으로 구체적으로 기술한다.

교수의 自己發展契約의 한 예를 들면 다음과 같다.

教授自己發展契約

J. 도오코스, Ph. D.—생물학과 조교수
계약기간—1979. 9~1981. 8

I. 自己評價

가. 나의 장점

1. 실험을 설계하고 감독하는 일
2. 학생들을 親의으로 조언·지도하는 일
3. 연구능력과 배경
4. 타 관련학문에 대한 관심과 지식
5. 자연과학 및 수학에 관한 상당히 넓은 문헌적 지식

나. 나의 약점

1. 강의능력, 특히 대형 강의
2. 연구보고서를 쓰는 데 좀 느린 편이다.
3. 대학 실험실 밖에서 일한 경험이 적다.
4. 강의실, 실험실, 개인 연구실 밖에서 학생들과 잘 만나지 않는다.
5. 시험문제를 잘 만들지 못한다.

II. 活動範圍 및 評價方法

가. 학사요람에 제시된 대로 상급반 연구법 및 세미나를 담당함에 있어서;

1. 나의 강의에 대한 학생평가지문 내가 담당한 모든 강의실에서 실시하여, 그 결과를 학과장과 상의하고, 적절히 종합하여 제출한다.
2. 나의 평가위원회의 위원들로 하여금 나의 “교

급생물학" 강의를 참관하게 요청하고, 그들의 평가를 듣고 서면으로 종합한다.

나. 브라운 교수 담당의 교양과정의 실험실 지도를 맡으며, 실험요강을 작성한다.

1. 실험요강에 대한 과내의 다른 교수와 상급학년의 의견을 듣는다.

2. 실험실 지도본에 대한 학생평가지를 만들고 실시하여 위의 II. 가. 1.에 따라 처리한다.

다. 진행중인 연구과제를 계속하여 완성한다.

1. 이 연구가 완성되는 대로 생물학과의 정규 교수 세미나에서 발표한다.

2. 연구 보고서를 써서 출판위원회에 제출한다.

라. 도서관위원회의 자연과학 및 수학 소위원회에 참여하며 의예과 위원회를 주재한다.

1. "의예과 교육" 브로쉬를 개정한다.

2. 의예과 학생들의 지도교수로 일한다.

3. 3, 4학년의 2개 의과대학 참관을 추천한다.

4. 도서관 위원회 위원장에게 그 위원회에서의 나의 공헌도를 서면으로 통보해 주도록 요청한다.

III. 自己發展計劃 및 評價方法

가. 네 강의를 3시간 비디오 테이프하여 자기평가를 위해서 분석하며 브라운 교수가 보고 평가하도록 요청한다.

나. 1979~80학년도에 브라운 교수의 대형 교양과목의 한 단원을 강의한다. 자기평가를 위하여 그 강의를 비디오 테이프하며 네 강의에 대한 학생평가도 실시한다.

다. 1980년에 연구비 신청을 한다(부분을 보라).

라. 윌리엄스 교수에게 나의 지난 학기 고사에 대해 검토해 주기를 요청한다. 그에게 그 고사를 평가하고 새로 만드는 일에 도움을 요청한다. 나의 담당과목 중 수강생이 적은 강의에서 구두시험을 시도해 본다. 이 시도의 성패는 윌리엄스 교수도 알릴 것이고, 학생평가에도 반영할 것이다.

마. 1980년 여름방학 동안에 대학 외 기관의 연구계약 획득을 노력한다. 이 사실을 나의 자기평가 파일에 기록하고 나의 직속상관에게 즉시 평가해 주기를 요청한다.

바. 학생식당에서 전보다 자주 식사를 하며, 가끔

학생들을 우리집에 초청한다.

IV. 지원 요청

가. 연구프로젝트 \$ 425

학생조교 \$ 350

타자 75

나. 인쇄 \$ 600

실험요강 250

의예과 브로쉬 350

다. 여비 \$ 325

학술회의 175

의과대학 방문 150

\$ 1,350

V. 評價委員會

B. 브라운 및 S. 윌리엄스 교수와 J. 존즈(학생)가 나의 평가위원회 위원이 되어 주기를 동의하였으며 나에 대한 종합보고를 할 것임. 나는 적어도 6개월마다 이들과 회합할 것이며 거기서 나의 진도를 평가할 것임. 이상에서 설정한 평가방법 이외에, 나는 계약기간 종료시 자기평가 종합보고서를 제출할 것임.

*Centra, J.A. *Determining Faculty Effectiveness*. San Francisco: Jossey-Bass, 1981. pp. 69-70.

이 구체적인 활동내용은 주기적인 회합(학과장, 동료교수 등)을 통하여 검토하고 평가해 나간다.

이 自己發展契約의 사용에 있어서 가장 중요한 것은, 그 자료를 승진이나 제임용 등의 목적에 사용하여서는 안 된다는 점이다. 이 약속이 지켜지지 않는 한 자기의 장점과 단점을 솔직히 밝히 낼 사람은 아마도 없을 것이며, 그렇게 된다면 이 방법은 순식간에 그 가치가 사라지고 만다. 따라서 자기발전계약은 문자 그대로 순수히 교수로서의 자기발전을 위한 방편으로 사용되어야만 할 것이다. 위에 제시한 教授自己發展契約은 미국 대학에서 사용되고 있는 한 가지 예로서 우리 나라 대학의 사정에 맞게 적절히 변형하면 유용한 교수능력개발의 방편이 될 수 있을 것이다. *

Robbins to Leverhulme: Excellence in Diversity

- ◇ 이 글은 英國의 레버후름財團, 글벤키안財團 및 교육과학 ◇
- ◇ 성의 支援으로 SRHE(Society for Research into Higher ◇
- ◇ Education)가 1981년 4월부터 1982년 9월에 이르기까지 ◇
- ◇ 여덟 차례의 세미나를 開催하여 발표한 “高等教育의 레버 ◇
- ◇ 후름프로그램”을 요약한 것이다. 이 프로그램은 1963년에 ◇
- ◇ 발표된 로빈스 報告書의 비현실적인 점을 지적하고 1990년 ◇
- ◇ 대를 향한 高等教育의 인력계획, 수요정책, 기관의 변화, ◇
- ◇ 연구활동, 교수법, 대학관리·행정 등을 다루고 있다. 변 ◇
- ◇ 화하는 英國 고등교육 추세를 잘 나타내고 있는 이 글을 ◇
- ◇ “The Times Higher Education Supplement”에 게재된 그 ◇
- ◇ 대로 소개한다. ……………〈編輯者 註〉 ◇

I. Two-year trial by seminar

It started as a fall-back strategy but evolved into a distinctive style of policy analysis. “Trial by seminar” is the best shorthand description of how the Leverhulme programme of study into the future of higher education set about its work.

The first idea was to have a second Robbins, a high-level committee that would draw an equally authoritative map for higher education up to the year 2000, or possibly a British Carnegie commission, that would reproduce Clark Kerr's sprawling 1960s inquiry on this side of the Atlantic.

But Robbins was official and Carnegie was expensive. It soon became clear that while the Department of Education and Science was very interested in new ways of making higher education policy and the Leverhulme Trust was generous in its sponsorship of the programme neither the endorsement nor the money was available.

In retrospect this barrier was a blessing. The 1980s, unlike the 1960s, are not a time for large-scale, highlevel committees of inquiry. Megaplaning is out of fashion and out of favour. Views about the future of higher education are too disparate to be incorporated safely in a single pattern of future development.

So, having abandoned its earliest ambitions to be a second Robbins or a British Carnegie, Leverhulme settled for a three-stage operation. The first stage was a series of eight specialist seminars on the hot policy topics in higher education, starting with manpower planning and ending with the binary policy.

In the late spring of 1981 the Leverhulme circus took to the road and continued its peripatetic policy analysis until the autumn of 1982 (“This is Edinburgh so it must be ‘Access’”). Some day perhaps the semiology of why particular subjects were discussed in particular places will be fully investigated. But it was surely not entirely an accident that

research was discussed at Unilever's well appointed international management centre in London's leafy suburbs, resources at the Civil Service College where all the Sir Ilumphreys are trained, arts in Oxford and teaching in a college of higher education.

Each seminar lasted two or three days and was attended by between 35 and 50 people. The participants were balanced, to the best of the ability of the organizers, between academics and policy practitioners, and university and non-university. In most cases the mix worked reasonably well but there were difficulties: the binary frontier is a barrier of prejudice and ignorance as well as an administrative division as the common ground of Leverhulme soon demonstrated; the non-university sector was over-interested perhaps because it is overloaded with acronymic organizations; the universities under-interested as the tendency of vice chancellors to be well represented among the "no shows" showed.

Each seminar had a chairman who would have made a respectable chairman of a second Robbins committee if that had been feasible. Four, who tended to be non-executive, were senior industrialists: Mr Kenneth Durham, Sir Michael Clapham, Sir Alistair Pilkington and Sir Adrian Cadbury. Four, who tended to be more interventionist, were Sir Kenneth Berrill, former chairman of the University Grants Committee; Lord Crowther Hunt, rector of Exeter College, Oxford and former DES minister, Mr Christopher Ball, warden of Keble College, Oxford and chairman of the National Advisory Body's board; and Sir Bruce Williams, formerly vice chancellor of Sydney University and now director of the Technical Change Centre.

The chairmen were guided/supported/contradicted by convenors, academics or at any rate higher education insiders who selected the keynote papers and wrote up the seminar reports. Arising from each seminar a monograph was published by the Society for Research into Higher Education. These contained the seminar papers, an account or interpretation by the convenor and a set of recommendations.

The second stage of the Leverhulme process was a parallel series of follow-up conferences which shadowed the eight seminars. The agenda for these conferences were the proceedings of the relevant seminars. Anyone could come-so few people did. The follow-up conferences in too many cases followed the familiar pattern of sparsely-attended weekend conferences attendance at which earns no Brownie points. Perhaps as a result the wider dissemination of the work of the seminars was frustrated and the impression of a "seminar clique" intensified.

The third stage is the final report published today which caps the whole Leverhulme process. The first draft was written by Professors Gareth Williams and Tessa Blackstone before Christmas. In a two-day seminar and two subsequent meetings (and considerable bilateral negotiation between drafters and signatories) the chairmen pushed and pulled the draft until they were happy with its shape. One chairman, Sir Bruce Williams, has written a note of dissent in which he expresses fundamental disagreement with the strategy outlined.

In this rather prolonged and diffuse process Leverhulme may have stumbled on a style of policy analysis and formation that is more appropriate for the 1980s than the Robbins and Carnegie models that were reluctantly discarded. Pluralist, even dispersed, planning it could be called.

What Leverhulme has evolved is a way of thinking about and discussing future options for higher education that leaves room for a variety of perspectives-among the participants in the seminars, between seminars, between seminars and follow-up conferences, between

seminar recommendations and recommendations in today's final report. None of these competing perspectives is inherently more legitimate than the others. Even the final report, although important and presenting a coherent view of the future of higher education, is not intended to establish an authoritative orthodoxy. It is simply the chairmen's report, *primus inter pares* of the various Leverhulme publications.

So the Leverhulme programme has evolved two important characteristics. First, it has been about means as much as ends. It is not intended that the final recommendations should count for everything. Instead the whole process of analysis, argument, even inconsistency counts for as much. This shift in emphasis from Policy with a capital "P" to process with a small one is fully consistent with the more modest and reflective styles of policy analysis of the 1980s.

Second, Leverhulme does not offer an incontrovertible recipe for reform. Instead it provides a preferred recipe but leaves plenty of ingredients scattered around for cooks with different ideas. This absence of dogmatism, of course, was to be expected of a programme which has taken diversity as one of its commanding motifs. But it also reflects the more tentative quality of contemporary policy analysis, and articulates the sincere ambiguities and uncertainties of British higher education today.

II. Leverhulme study programme: extracts

The term higher education conjures up many images. For some it is primarily a community of disinterested seekers after truth, who are sometimes indistinguishable from the remote and ineffectual dons of Hilaire Belloc. Others see academic institutions as sources of intellectual power that can be focused according to social priorities. Some imagine a wholesome but carefree environment for young adults before they embark on the serious business of life, others the inculcation of knowledge that will be directly profitable to student and to society. A more recent idea is that universities, polytechnics and colleges should be wider communities, with people dropping in from time to time throughout their lives.

Higher education is all of these things and more. Any selection of critical issues implies to adoption of a particular perspective. Ours derives from public policy. We are interested primarily in policies and policy mechanisms which will enable publicly financed institutions to perform well and to be seen to perform well. We have identified major issues that should be on the national agenda during the next fifteen years whatever the nature of the governments, agencies and institutions that formulate and implement the policies.

Today's children will inherit a world of high technology. While at work, however, they will need to be more efficient and more productive than ever before. In work and in leisure their well-being will depend on their knowledge, skills and creativity. Universities, polytechnics and colleges are not the only social institutions involved in producing and disseminating knowledge, developing skills and cultivating creativity, but their role is a crucial one.

For some years there has been no coherent policy for higher education. It is nearly twenty years since Robbins devised a strategy of expansion which worked well until a combination of stagnating demand from school-leavers for traditional courses, severe economic stringency and impending population decline undermined it. Robbins proposed, and for many years governments accepted, that demand from school-leavers who were quali-

fied and willing to enter degree-level courses should largely determine the provision of places in higher education. The criterion, although still a valid starting point, no longer gives satisfactory policy guidance.

There will be substantial excess capacity by the early 1990s unless universities, polytechnics and colleges can adapt to new tasks and to the needs of new types of student. They must be capable of responding to academic developments and to fresh demands from society. They must be in the forefront of technology, both initiating and evaluating it. However little additional capacity will be created. New developments must come from adaptation, not expansion.

Much of the work of colleges, universities and polytechnics is intrinsically valuable but this does not preclude the need for some public accountability. Major industries have declined when demand has changed and enterprises have been unable to adapt. Response to changing demand not be passive acceptance of external circumstances. Education is properly concerned with influencing public attitudes. Nevertheless, the case for public expenditure on higher education must be based on benefits for the nation. One of the main aims of this report is to suggest changes which would make more visible the contributions of higher education to the economy and to society.

Expenditure has to be restrained in an activity that must remain largely within the public sector and compete for resources with other social and education services. The Strategy outlined in this report would encourage the development of a network of vigorous, efficient and cost-effective institutions, each excellent in its own range of activities, each imbued with a strong sense of academic purpose and responsive to the needs of a wider society. The main theme is an endorsement of diversity. This requires strong institutions and multiple criteria for policy formulation and resource allocation.

1. Aims of the strategy

Our strategy has eight main aims:

- To provide opportunities for all who are able to benefit from some form of higher education and to encourage access from a broader social spectrum than at present:
- To reduce undue specialization in secondary education and the initial years of higher education:
 - To create a framework within which the quality of teaching and research can be maintained, at a time when underlying demographic trends will make competition for resources difficult:
 - To stimulate research and other academic activities not directly linked to student numbers:
 - To encourage institutions to prepare realistic development plans:
 - To increase the capacity of universities, polytechnics and colleges to respond positively to changing academic, social and economic and industrial needs:
 - To promote efficiency in the use of resources:
 - To create a framework for policy and management studies that will help leaders of academic institutions meet the challenge of adaptation without growth.

2. Access

British students tend to be young and to be concentrated in full-time courses. *Access to Higher Education* shows how concentrated this provision remains, despite some welcome

expansion of part-time and non-degree courses outside the universities. A central concern for the future is whether this pattern remains the best way of providing for a larger and more varied student population.

Robbins drew attention to marked differences in participation rates between different social groups and these remain. To this has been added since the time of Robbins the problem of apparently low participation by some ethnic minorities. The overall proportion of students who are women rose for several years but declined between the mid 1970s and the early 1980s. Considerable disparities persist in participation between different regions of the country. Such discrepancies should not be accepted as an inescapable feature of higher education. There should be renewed efforts to diagnose their causes and remedy any educational and social deficiencies of which they provide to be symptoms.

3. Course content and structure

The comments in this section apply particularly to the honours degree courses which are still dominant in the universities. A wide-ranging debate is needed about the content of under-graduate courses in the light of contemporary needs. One reason why we propose a radical reform of the structure of undergraduate education is to try to succeed where expansion accompanied by exhortation failed, and to break into the circle of excessive specialization in secondary and higher education.

The specialized honours degree has intrinsic merits. It is centred on the idea of an academic discipline: a coherent body of knowledge or range of subject matter that "holds together" and provides recognized methods of analysis. However, there are also advantages in properly integrated degree schemes in which students are able to experience the methods of thought of several disciplinary perspectives. There is no reason why everything in an undergraduate curriculum should be taught in great depth. Breadth and the ability to integrate different ideas have intellectual as well as practical value. In the probable employment conditions of the 1980s and 1990s, very specialized first degrees are likely to be even less appropriate than they were in the 1960s.

Four of the SRHE/Leverhulme volumes make proposals for new patterns of initial courses of study, strongly emphasising the need for flexibility. In recent months there has been increased public discussion of proposals for a pattern of courses linked by a basic initial course of two years of full-time study (or part-time equivalent) rather than the three or four-year full-time honours degree with forms the lynchpin of the present system.

Four main arguments can be put forward in support of less specialized two-year initial courses.

(i) Shorter initial courses accompanied by genuine possibilities of credit transfer between institutions and variety of subsequent options would permit greater flexibility and give individual students more opportunity to tailor their higher education to meet their own particular needs and interests.

(ii) Relatively short basic courses linking more than one disciplinary perspective but of good academic quality would help to overcome the problem of early over-specialization and would be suited to the needs of many students and many employers in a system of mass higher education.

(iii) Such courses could be widely available in a variety of institutions and would thus remove a serious obstacle to access, particularly for adults and working class students (especially girls), who do not have a strong tradition of leaving home to go to college.

(iv) Courses could be provided at a lower average cost per student year if they were less specialized. There would be fewer uneconomic small courses. A greater proportion of students could live at home. More people would have some experience of higher education for any given level of expenditure.

Three possible versions of two-year initial courses of study have been proposed: more intensive first degrees of the existing type, a new type of non-degree qualification in some institutions and a new type of initial degree in all institutions. *Agenda for Institutional Change* argues that honours degree standards could be met by lengthening the academic year which many outside higher education would see as a desirable reform in itself.

Staff research and study time could be protected through study leave arrangements. Such an approach would save little money if the provision for staff study leave resulted in periods of absence corresponding to existing vacations. More intensive use of buildings and equipment would be partly offset by their unavailability for activities such as conferences. Two-year intensive honours degree courses would make it difficult to reduce specialization in many subjects.

Another proposal is to treat two-year courses as an alternative qualification alongside the honours degree. This has been tried in the form of the Diploma of Higher Education but has little chance of success if traditional three and four-year honours degree courses supported by mandatory student grants continue to dominate provision in universities and polytechnics.

The third possibility is a different type of initial degree qualification in all institutions. One qualification, previously widespread, which has become much less common in England is the pass degree. A two-year pass degree could be the link which brings together several ideas under discussion for shorter, less specialized, more flexible, more widely available basic courses. Entry requirements could be broader than those required at present for admission to specialized honours courses. Pass degree courses might normally adopt a rather broad approach to a disciplinary area preparing the way for subsequent specialization: they should not, we stress, be a mish-mash of anything and everything. They could vary quite considerably in the extent of specialization and generalization. Some could be related to particular occupations.

A central issue in any consideration of a pattern of courses based on shorter periods of initial study is what opportunities they would open up to students. If three-year honours degrees were squeezed into two years, few changes would be needed in the pattern of postgraduate study. If two-year Diploma of Higher Education courses were expanded alongside existing three and four-year degrees, the key issue would be the terms on which students completing the diploma could transfer to full degree courses.

However, a two-year pass degree would require radical rethinking of both undergraduate curricula and the pattern of postgraduate courses. After obtaining a pass degree some students would finish their higher education, at least for a time. Others would proceed to a one-year honours course enabling them to go on to a higher degree. Another route could lead to one, two and three-year courses related to specific occupations.

In total, three layers of higher-level study should be built on to the basic two-year course. The first should be courses leading either to honours degrees or to occupation related postgraduate diplomas. After this, further one-year courses should lead to a variety of qualifications at master's level, either academic and research based, or linked to particular occupation. Finally, the third layer of postgraduate courses would lead to doctorates.

Research degrees and research training need special consideration. The traditional PhD is likely to come under increasing pressure to change. The structure of postgraduate courses outlined above could help meet this aim.

Present financial arrangements, discourage institutions from offering, and students from seeking, courses other than those leading to full-time honours degrees. In general, finance could be used more purposefully as an instrument encouraging response to changing circumstances. For example, the unit of resource per student could be higher for third and subsequent years of study to reflect higher costs of more specialized courses and to encourage the acceptance of transfer students. Furthermore, if means-tested mandatory grants were available for all students on the two-year initial courses but financial support to students for subsequent courses was based on other criteria, students would be encouraged to seek, and universities, polytechnics and colleges to provide, courses that could be completed within two years.

There needs to be financial support for students on higher-level courses. However, the criteria should be different. Five categories of support can be envisaged. The first would be scholarships for those who are exceptionally talented. The second would be grants in areas of special national or local need in which too few students of suitable quality were coming forward.

The third would be sponsorship of individual students by employers, including employers in the public sector. The fourth would consist of special grants to enable those suffering from long-term structural unemployment as a result of technological change to update their skills or acquire new ones. The fifth would be a government-backed loan scheme enabling students on higher-level courses to invest in their own future.

The issue of loans is thoroughly reviewed in *Resources and Their Allocation in Higher Education* which makes proposals for a mixed system of grants and loans. A general conclusion is that provided repayment arrangements are geared to realistic assessments of ability to pay, student support through loans is at least as equitable as support through means-tested grants. The success of loan schemes in a number of countries suggests that administrative problems can be over-come.

4. Maintenance of academic quality

In a period of adaptation without growth there is a danger that quality could be compromised as institutions compete for students and resources. Prime responsibility for standards must rest with the higher education community. Nevertheless there is a legitimate external interest and the higher education community benefits when its quality is clearly visible.

In general, there are marked differences of practice between universities and other institutions. Polytechnics and colleges are subject to a network of outside influences and controls from the CNAAB, BTEC, the Regional Advisory Councils, the local authorities and HMIs, while universities respond only to those external voices they choose to heed. During the course of our study two broad views emerged. One was that the non-university institutions should have less external intervention in their academic affairs: the other was that universities should have more.

There is certainly a case for some convergence of practice. Most polytechnics and colleges of higher education are now mature institutions with experienced senior staff. On the other hand, along with universities they may in the future find themselves under pressure

to compromise academic quality in attempting to maintain student numbers or earn income from other sources. We believe that the universities should establish an academic review body with these broad functions and that this body should collaborate with the CNAA, with the possibility that in due course the two bodies might combine.

5. The academic profession

Effective professional development policies and open styles of management can help to maintain morale; but it is necessary to ensure that some well-qualified graduates are regularly appointed to academic posts; that all members of universities, polytechnics and colleges are able to contribute usefully to the work of their institutions; that those who occupy positions of responsibility retain their capacity to shoulder their responsibilities; that there is some mobility of staff; and that students have opportunities to benefit from the expertise of people with recent experience outside higher education.

In the contraction of recent years, many members of staff have taken early retirement. Early retirement schemes will continue to be needed. However, reduction of the average length of working life through longterm early retirement has major implications for pension schemes. At the other end of the scale it is undesirable to subject very able young graduates to excessively long periods on temporary contracts.

In universities, the issue of lifetime tenure cannot be avoided. It is unfortunate that this issue has come to the forefront of political debate at a time of severe financial stringency because the issues involved are not primarily financial. There is a strong case for treating university teachers like their research and public sector colleagues and protecting their rights through employment protection legislation (which did not exist until relatively recently) rather than seeking to maintain life-time tenure as the standard form of university teaching appointment.

It is difficult to determine how well an academic is carrying out his teaching activities except in cases of serious dereliction of responsibility. Management procedures are needed to help encourage good academic practice. In many areas of professional employment there are now annual appraisals of performance, and such reviews could usefully be introduced in higher education. The widespread extension of arrangements for fixed terms of appointment for senior positions of responsibility is desirable. Appointments could be renewable but open to competition when an individual's term of office ends.

A growing number of academics have worked in only one institution. In general, universities, polytechnics and colleges are invigorated by a regular infusion of ideas and experience from elsewhere. When new recruitment is low, this can be achieved only through secondment and staff exchanges. National schemes are needed whereby academics can change places with colleagues in other institutions or areas of employment. The position of part-time members of staff needs protection, especially at a time when limited budgets make them particularly vulnerable.

In the past a period of full-time academic research has often preceded appointment as a permanent member of the teaching staff of a university or other institution. Arrangements are needed which will provide suitable long-term careers for able research workers even if no appropriate teaching posts happen to be available. Research councils should fund a significant number of senior appointments in areas where research is needed but where student demand for courses does not justify a sufficient number of new teaching posts.

6. Research

Institutions of higher education contribute directly to the national capacity for fundamental and applied research and train the next generation of researchers. In doing so they contribute to the solution of social and economic problems and help in the attainment of other cultural objectives. There are doubts whether these functions are at present being performed as well as they ought to be.

A corollary is that any institution where research is seen as a significant activity would need to have a research policy determining the balance of its effort between subject areas, between research and research training and between different forms of applied and pure research.

Agnosticism about the direct links between undergraduate teaching and research leads to the conclusion that different institutions will have a different balance of teaching and research, and that there must inevitably be some concentration of effort. The *Future of Research* endorses the concept of polytechnics having a special role in applied research and recommends that each polytechnic should have an explicit research policy.

The issue of research and research training in the arts and humanities is raised in the *Future of Research* and in *The Arts and Higher Education*. The main policy issue is whether there is need for a separate research council for the arts and humanities. Both reports are cautiously sympathetic to the idea. The implications of setting up such a council should be studied by the Department of Education and Science and other interested bodies such as the British Academy and the Arts Council.

7. The binary system

A variety of learning opportunities might be provided by a few large comprehensive universities each covering a wide range of activities and a large catchment area, or by a wider geographical spread of smaller and more differentiated establishments. While the extremes of huge, all-purpose institutions and very specialized monotechnic institutions can easily be rejected, an important strategic choice is whether there should be a move in either direction. On balance, the need to maintain quality and to broaden access in a period of intense competition for resources points in the direction of institutional differentiation. Any consideration of institutional differentiation must take account of the binary system.

These administrative differences do not correspond to equally sharp differences in academic outcomes. Does the overlap of academic functions suggest that the binary system should be abandoned? The binary system involves three distinct differences between sectors: legal and administrative status, mechanisms of finance and methods of academic regulation. It is not clear that the differences in legal status need correspond to the other two distinctions. Similar activities can be performed by institutions with different administrative arrangements. We have suggested that universities should establish some form of organized external academic review in teaching as well as research. This need not damage their status as universities. Conversely there is a good case for appropriate funding to enable at least some polytechnics to develop a significant research capacity.

More positively, the binary distinction provides what is described in the report *Structure and Governance* as a "moralising metaphor". The existence of one segment of higher education pulled in the direction of research and scholarship and another pulled in the direc-

tion of local and regional social and industrial needs does help to remind members of all academic institutions of the essential diversity of higher education.

It would certainly be regrettable if the existence of the binary system hampered cooperation between institutions. However, the extent of cooperation between institutions *within* either sector is sufficiently limited to cast doubt on whether it is the distinction between universities and other institutions which inhibits the sharing of resources. No doubt the blurring of the binary line will continue.

8. The role of government

Central government needs a higher education policy both because of the key role of universities, colleges and polytechnics in the national systems of research, education and training, and because it provides most of the finance. Cash limits not influenced by criteria of educational or social need do not amount to a higher education policy. Government should have explicit policies with respect to the scale of provision, especially in areas of particular public concern and those which make heavy demands on resources.

There need to be intermediary organizations to advise on the allocation of funds according to the broad policy objectives of government while inhibiting direct political involvement in academic affairs. At present the main such bodies are the University Grants Committee, the National Advisory Body for Local Authority Higher Education, various denominational bodies concerned with the voluntary colleges and the research councils.

The local authority role in England and Wales is considerable and provides an important administrative link between higher education and the rest of the education service. Numerous reports on higher education during the past twenty years have taken the view that while individual maintaining authorities should retain overall responsibility for the good management of institutions under their control, major higher education institutions should have the maximum possible freedom to manage their own affairs. Local authorities need to retain enough residual powers to discharge their legal and financial responsibilities but otherwise they can best involve themselves in the running of institutions through membership of governing bodies.

It is sometimes claimed that some or all of the polytechnics should be taken out of local authority control altogether on the grounds that they are major higher education institutions which have more in common with the universities than with the rest of the public sector. In our view forms of government and mechanisms of finance need not determine academic standing or levels of resources, and the cause of diversity is likely to be best served by a variety of forms of academic government.

The National Advisory Body for Local Authority Higher Education was established in England in 1982 for an initial period of three years. These arrangements have the effect of bringing resource allocation in the local authority sector under a substantial measure of central influence. They provide machinery which will begin to make it possible to devise coherent policies for higher education between universities and the public sector.

Colleges run by voluntary bodies and the other institutions which receive a direct grant from the DES remain outside the direct influence of the NAB. We note that discussions are under way which may lead to them coming within the sphere of influence of the National Advisory Body. This would help ensure similar treatment of institutions performing similar functions and seems a sensible aim.

The Structure and Governance of Higher Education discusses the possibility of merging

the UGC and the NAB into a single funding body. This remains a long term option, but there are significant differences in the constitutions of the two bodies and of the institutions for which they are responsible. The NAB is recently established and needs time to establish its influence within the local authority sector. Meanwhile the NAB and the UGC should continue the collaboration already started to eliminate obvious anomalies in resource allocation between the main types of courses and subject areas and between geographical regions. It is more important for the UGC and NAB to agree common funding criteria for the many activities that are common to the two sectors than to confront prematurely the difficulties involved in a merger.

The unearmarked research funding received by universities is one of the main sources of the sense of injustice felt by many public sector institutions. Separate identification of research and teaching budgets would protect research and help to bring about a sharper focus of the national research effort. It would also enable the true costs of different institutions to be seen more clearly.

Like research, continuing education can be funded as an adjunct of the general funding of institutions; it can be funded through a special agency, or it can be funded through the purchase of courses by individuals, firms and government departments. Unlike research, continuing education does not at present have a specialized funding agency: it is provided either out of the general budgets of institutions and local authorities or on a full-cost basis to students or sponsors of students. As far as higher education is concerned, the issue is whether present funding mechanisms involving the NAB and the UGC will be adequate to meet the needs for higher levels of continuing education without a special agency having responsibility for initiatives outside the normal pattern of course provision.

9. The institutions

Any external intervention between student and teacher, or between scholar and scholarship needs to be justified. We have proposed that one possible justification is the maintenance of standards. Another is the efficient use of public funds in the light of legitimately established national priorities.

Institutions should have a central role in any strategy for the future of higher education but there must be some coordination of their separate efforts. Each university, polytechnic and college should have an academic development plan recognized by its main funding body as being consistent with broad national and regional policies.

Any mechanism of institutional finance is a compromise. There is a compromise between the claims of academic freedom and the claims of elected governments to establish priorities. There is a compromise between the desire of institutions for guaranteed funds to enable them to plan rationally and the wish of external funding bodies to use financial incentives. A balance between the pressures can best be achieved, and the independence of institutions safeguarded, if they receive their income explicitly through several different routes.

Each institution whose primary activity is higher education should be entitled to receive core funding in the form of a general grant through the appropriate funding body in accordance with its agreed development plan. We consider that over the system as a whole sufficient recognition would be given to the claims of academic autonomy if institutions received on average about half their income in the form of long term guaranteed core funding.

A second component of institutional income should be the full-cost funding of specific teaching and research programmes and projects. Funding agencies should earmark funds for designated programme areas and institutions involved in the provision of higher education should be entitled to bid for them.

Local authorities should be able to make programme grants to both public sector institutions and universities. Some provision for locally-based programme funding could be made in the block rate support grant. Some funding bodies, for example the research councils, would probably adopt primarily the programme funding mode, while the UGC would probably allocate a relatively small part of its total funds in this way. However, it is desirable that the UGC set aside a significant part of its funds for special programmes. Given the greater variety of provision in the public sector and its greater need to respond quickly to local needs, the NAB and its Welsh and possibly Scottish counterparts would probably reserve larger shares of their allocations to the programme funding mode.

The third source of funds reflects directly the interests of employers and users of research. Income can be earned from full-cost courses and from research, development and consultancy for industrial and commercial enterprises and central and local government. Income can also be earned from the hire of facilities such as buildings, sports amenities and computing facilities. The key element in these proposals is the notion of core funding, guaranteed for long periods but needing to be supplemented to a significant extent from other, less secure sources.

10. Improving academic leadership

Both an awareness of the policy environment and professional management skills will be needed by academic staff who aspire to a significant role in running their institutions. Neither are systematically available across the whole of British higher education at present. A centre for higher education management and policy studies should be established with the twin tasks of promoting the study of emergent policy issues and of providing facilities for the professional development of leading members of universities, polytechnics and colleges. The centre need not be a large staff college, and it might be linked to an existing institution. We would prefer to see an independent centre possibly linked to an institution not directly concerned with higher education. Its income should come from both sides of the binary line or, which would be preferable in the first instance, take the form of a direct grant from the DES. *