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Distance education practice: training and rewarding authors

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INTRODUCTION

1. Many educational institutions are developing or expanding programmes of open and distance learning (ODL forthwith), mainly for students off-campus. All face difficulties in ensuring that teaching materials of the right quality are developed and produced on time. Part of the solution to the problem lies in training and part in the policies and management structures that will encourage the timely development of good materials. This report examines aspects of these solutions in two separate but complementary enquiries: the first centres on the training of course development staff in open and distance learning; the second on rewarding of the writers of course material for open and distance learning.

2. In both enquiries, our main interest is in developing-country institutions. Nevertheless, we have also drawn on industrialised-country experience partly out of a desire to find good answers anywhere to a universal problem, partly because of the similarity in educational practices even within very different countries. Both pieces of research identify the distinction between single and dual-mode institutions as a critical factor in the analysis of data. Single-mode institutions are those that use only a single-mode of teaching. They include both conventional universities, with no programmes of open and distance learning, and open universities. This report is mainly concerned with the latter and with dual-mode institutions. As open universities and colleges are dedicated to the teaching only off-campus students, their organisational structures are different from those of dual-mode institutions, concerned with students both on and off-campus.

3. Dual-mode universities themselves vary. Distinctions can be approached in terms of organisational integration or the capacity of an ODL centre. In some cases, for example, only a handful of courses are available through open and distance learning and administrative arrangements for open and distance learning affect only a minority of university staff. In contrast some institutions have moved towards a policy of flexible learning whereby, there is a breaking-down of distinctions between on- and off-campus teaching'. In some institutions, the capacity of a central ODL unit may be purely administrative. In others, it has overall responsibility for the pedagogical quality of ODL materials, and for staff training.

4 The two reports are intended both to help developing-country institutions and to see how the British educational resource might best be deployed to enhance quality within them. We hope that our recommendations, mainly in paras. 76 to 95 and 138 to 142, will be useful to people within both constituencies. One underlying theme of the reports is the belief that benefits will flow as institutions are enabled to share good management practice. Another is the need to develop professionalism within open and distance learning in order to make the next leap in quality. Both themes can inform institutional practice on the ground and provide guidance for the design of aid projects or programmes.

5. We are grateful to the Department for International Development, which funded the bulk of the work, and to the Commonwealth of Learning for its support. We are also, of course, indebted to the respondents to our enquiry, without whose help the report could not have been written.

Hilary Perraton and Charlotte Creed

PART 1: THE TRAINING OF COURSE DEVELOPMENT STAFF IN OPEN AND DISTANCE LEARNING

6. Distance education is being used for a growing range of educational purposes in both industrialised and developing countries. Improved understanding of its methods means that we now have a fair knowledge of the conditions likely to make it more or less effective. One of these conditions is the capacity to develop effective teaching materials in text format. This report investigates the ways in which those involved in developing teaching materials are trained.

7. The ODL course development process involves a range of staff, all needing some form of training. This enquiry takes as its starting point the practices surrounding the training of authors and, to a lesser degree, editors[1] but seeks to understand those practices within a wider cradle of institutional relations. The research has four main aims: to illuminate current practices in training, particularly in developing countries; to identify examples of success or difficulty; to ask what changes in policy and practice might overcome some of the difficulties; to ask whether new information and communication technologies (ICT forthwith) are playing a significant role in this. This report summarises and analyses the findings on current practice with recommendations of ways to strengthen it. It attempts to identify factors that contribute to quality in training and, as a reflection of the effectiveness of that training, in the materials development process.

Research methods

8. Our data is drawn from five principal sources: a questionnaire survey of educational institutions which offer some form of ODL; a small group of case-studies (from within those institutions); in-house or published training literature (in the form of handouts, handbooks and manuals); by a short review of literature about ODL staff development, particularly in terms of authoring and editing of course materials; discussions and meetings with leading professionals who specialise in the training of writers and editors of ODL, particularly in developing countries.

9. Certain strategies were employed to overcome two research difficulties. First, to give priority to the views and practices of in-country ODL practitioners over those of expatriate trainers, an emphasis has been placed on data gathered mainly as the result of a direct approach to targeted institutions and practitioners, through questionnaires, the case-studies and in-house training literature. Academic articles about staff development which originated from developing countries were also given particular emphasis. Second, it was anticipated that postal questionnaires were likely to be completed by the *providers* of training rather than the *recipients* of training and would therefore reflect their particular perspectives. As a counterbalance, the views of recipients - course authors in particular – were elicited within the case studies and, where feasible, by means of individual contact.

10. The survey institutions were chosen to reflect a range of:

- regions (e.g. Eastern Europe, Asia, sub-Saharan Africa)
- economic circumstances
- organisational types/sizes (single or dual-mode institutions) and level (tertiary and basic).

[1] Editor refers to the team member with overall *educational* (training & working with authors) and *administrative* responsibilities (supervising course development & printing); sometimes referred to as instructional designer, course manager, educational technologist or pedagogical adviser.

Fifteen of the targeted institutions were from developing countries and, as a point of contrast, the remaining five from industrialised countries.

11. The survey was designed to identify factors which are likely to affect the quality of training: the management structures behind staff and course development; the content and pedagogy of training; the organisational aspects of training such as frequency, duration, delivery. It also asked respondents to identify key areas, which, in their view, would significantly enhance the quality of the training and course development process in their institution.

Training policy

12. Two distinctions emerge as critical factors in training policy and practices: the distinction between industrialised and developing countries and between single- and dual-mode institutions.

13. At the most obvious level, educational institutions in industrialised countries are likely to have more resources that those in developing countries and work in a richer environment with greater options. This will have a direct impact on both the training and course development process and manifest itself in a variety of ways. In training, for example, many industrialised-country institutions will have the resources and staff to advance a range of staff development options which are offered, as of right, on a frequent and incremental basis. In contrast, many developing-country institutions, working with minimal or low resources, can only offer training on a short and one-off basis with few, if any, further opportunities. In terms of the course development process, staff in industrialised-country institutions are more likely to have the technological, editorial and research resources to submit their materials to a process of continual revision and refinement; this contrasts with practices in many developing countries where a lack of those resources and a pressure to produce materials quickly, can lead to materials which are published after a minimal editing process and yet are destined for a long shelf-life.

14. Institutions with a sizeable and established ODL output are likely to have developed a fuller training programme and a larger pool of expertise in course writing and development. Dedicated distance-teaching institutions (single-mode) are typical but they also include established dual- or mixed-mode institutions. In the course of developing a sizeable body of ODL materials, they are likely to have, at least, identified appropriate training and institutional models to ensure the quality and timely delivery of ODL materials. In contrast, institutions making the transition towards dual-mode status will have a fledgling organisational structure within a larger institutional framework, and emerging staff- and course-development systems. Authors, usually drawn from internal lecturing staff, will have expertise in their own subject, and in teaching it conventionally, but need to adapt their teaching techniques to an unfamiliar mode of teaching. With dual teaching responsibilities, they are usually short of time (for meetings, training and writing) and the pressure to produce materials limits their willingness to spend time learning how to write, even if they are convinced of the need to do so. Training for these practitioners needs to make *very* efficient use of time. This problem is common to all transitional dual-mode institutions but it is likely to be particularly pronounced in developing countries.

15. Table 1 summaries some key differences between single- and dual-mode institutions in relation to the staff and course development process.

Table 1: Staff and course development differences between single- and dual-mode institutions.

Single-mode	Dual-mode
Established body of ODL courses	Emergent body of courses
Well-established, dedicated training programmes for authors, often moving from general to advanced/specialist levels	Emergent training, often one-off induction training
Full-time faculty authors dedicated to ODL writing	Part-time authors with commitments to both face-to-face tuition and ODL writing
Internal and external authors and editors used to develop ODL materials	Mainly internal lecturers used to develop ODL materials
Well-defined reward structure – pay, promotion, tenure, professional development.	Lecturers sometimes paid extra for authoring but this may be regarded as part of regular salaried duties
Staff working exclusively within ODL 'culture'	Potential culture clash between face-to-face and distance teaching approaches
May use large writing teams with strict division of labour and often in different configurations for different subject areas	Basic author/editor duo or small teams
Long editorial chain	Fairly short editorial chain

Practices: how institutions have responded

16. We follow now with descriptions of practices around the staff and materials development processes in our targeted institutions. These will include identified difficulties and begin to draw out interim conclusions about good practice.

What types of training are available?

17. Training of authors has generally been carried out in one or more of five ways, through:

1. short, on-the-spot courses or workshops, mainly for authors;
2. informal guidance from other staff (e.g. instructional designers working with writers) often on a one-to-one basis;
3. use of in-house handbooks on writing, usually prepared by an institution for its own staff[1];
4. use of published books and manuals on the techniques of writing and developing teaching materials[2];

[1] There are useful collections of these at the International Centre for Distance Learning (ICDL) and the International Extension College (IEC).

[2] The growing literature includes, for example, Holmberg, B 1960 *On the methods of teaching by correspondence* Lund; International Extension College 1979 *Writing for distance education* Cambridge; Jenkins, J 1981 *Materials for learning* London ; Fleming, M and Levie, W H 1993 *Instructional message design* Englewood Cliffs; Rowntree, D 1994 *Preparing materials for open, distance and flexible learning* London. The Commonwealth of Learning has looked at the general issues in training for distance education and produced a useful summary in its *Report on a round table on training distance educators* 1990.

5. participation in longer, formal courses either offered face-to-face (e.g. University of London Institute of Education/International Extension College specialist courses) or offered through distance education (e.g. MA in distance education of University of London, and of Indira Gandhi National Open University)[1].

18. In the majority the institutions, the preferred means of training authors and editors is on both a group *and* individual basis, and usually in a combination of workshops and one-to-one guidance, with accompanying in-house and published training materials. Thus a combination of the first four training types emerge as the most prevalent forms of training overall. Participation on formal, accredited courses was non-existent in the dual-mode institutions but in the single-mode institutions was either an occasional or a normal extension of their staff development programmes.

19. Typically, novice authors from a variety of subject areas start training together in a group *induction* to ODL, which usually includes both lecture and activity-based training. Following this stage, the training-up of authors becomes increasingly individualised and related to subject-specific course materials: support and advice is given at the point at which individual novice writers are engaging in actual course-planning and drafting. These two dovetailing stages are often backed up by internally produced and published literature about ODL.

20. Within the preferred combinations, institutions adopt different emphases: in developing country institutions, particularly dual-mode, a greater emphasis is placed on the *group* training of staff with individual support available on an occasional basis; in industrialised-country and single-mode institutions in general, the greater emphasis is placed on *individualised* training, following a brief group training. The distinction can be attributed partly to factors such as limited time available for training, staff availability and a tradition towards group teaching. Cost, however, is the most significant factor and leads to a situation where developing–country institutions can only offer training on one-off, group induction basis (to academics from a variety of subject areas). There is an underlying assumption that more subject-specific aspects of course writing will be picked-up during the normal iterative process of course drafting and editing. The assumption depends on the quality of the editor(s) and the editorial process[2].

21. One recurrent problem in dual-mode institutions, particularly notable in the African ones, is a resistance on the part of academics (senior faculty in particular) towards participating in ODL training and particularly in group workshops, preferring one-to-one training or training within same-status groups. In part this is related to an, often pronounced, academic hierarchy and the need to handle questions of status diplomatically. However, a significant part of this resistance can be attributed to two factors: first, the real time constraints faced by academics with teaching responsibilities in both face-to-face and ODL modes; second, the clash in culture which accompanies a transition from face-to-face teaching to print tuition in dual-mode institutions.

22. The dual responsibilities mean that academics face major difficulties in finding time to train, to hold meetings and to write. These are all time-consuming activities that require organisation and co-ordination. Writing in general and ODL writing in particular are both a great deal more difficult than often assumed. It cannot necessarily be assumed that they can be done well on the basis of lecture-hall experience (or even excellence).

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[1] Some examples of their material are also available to us through ICDL and IEC.

[2] In dual-modes, the editor and the trainer tend to be the same person whereas in single-modes, they are usually distinct jobs.

23. Open and distance teaching represents a real challenge to the established educational culture and can generate firm resistance on the part of staff. We can witness this at the general level and in actual specifics of training. At the general level, the commodified nature of many ODL materials, stripped of the social interaction of campus institutions, is widely regarded as a threat to educational quality; this view of ODL as second-rate education is further entrenched by the fact that an expansion into ODL is not always driven by any intrinsic educational merit of ODL itself (such as the drive to widen access) but often by market forces and recessionary conditions impacting on education. ODL also poses a possible threat to job security and the nature of employment: in terms of the latter, for example, the change to dual–mode status impacts significantly on the role of staff and on the 'management style of universities, which has shifted from a collegial towards a corporate model of functioning', Thorpe, 1995:28[1]. One consequence is that the distinction between on- and off-campus becomes blurred and there is a much looser sense of a community of academics and students with less face-to-face and personal contact.

24. There are also challenges at the more specific level of training ODL writers. Academics tend to see their main task as lecturing with course materials as a set of reference texts, rather than providing front-line tuition. Working collaboratively – in training, course production and writing – also challenges the independent authority of academics who normally operate as sole practitioners with control over their work. Team writing, for example, can be an intellectually rigorous and challenging activity: it makes an individual's knowledge and pedagogy (or lack of them) far more visible and open to scrutiny. Academics may also find themselves in the novel position of being advised by an editor with perhaps limited experience in their subject area but who *is a* specialist in producing written materials suitable for self-study learning. The individual activity of writing also presents difficulties: where teacher are used to teaching by the clock, they may well find it difficult to translate the same concept into study-time blocks of writing.

25. Participation in the fifth training type – longer, more formal training courses – is related to the type of institution. In dual-modes, the lack of participation in these courses is attributed to both their high costs and their inappropriateness: the length and academic nature of the courses make heavy time demands on already hard-pressed academics; ODL writing or editing are usually only a small part of these broad-based course (targeted to ODL practitioners in general). Authors often feel they have barely enough time to write and none to learn *how* to write. Instead, what dual-mode academics require is time-efficient, hands-on writing practice geared to the demands their subject areas. Single-mode institutions, by contrast, adopted one of two responses to further training: formal training is unnecessary as expertise in ODL would develop as part of the dedicated nature of their work; or formal training is provided where the institutions *themselves* offered the formal course or where there were established ties with the course provider.

26. Two interim 'good practice' implications emerge from these initial findings above. First, these institutions, many of which have been developing their training programmes over a number of years, appear to have arrived at a tacit consensus about what is desirable in terms of the content and methodology of ODL author-training (even where this is not achieved). The content needs to contain both *generalist* and *subject-specific* aspects: authors need a general orientation to ODL - its systems, the overall course production processes and its distinctive characteristics - but they also need to develop writing skills *within* the context of their subject; there are subject specific implications to writing in terms of characteristic modes of analysis, presentation and language. In terms of methodology, some generalist aspects of training can be group-taught but writing is an

[1] Thorpe, Mary (1995) The expansion of open and distance learning – a reflection on market forces, Open Learning, February issue.

individualistic activity: what trainees need is hands-on, practical experience of writing (rather than lectures *about* writing) and with individualised support from an editor/trainer.

27. Second, if ODL is to play a significant role in mainstream educational provision then the challenges of dual-mode institutions, particularly in developing countries, need to be directly addressed in a range of ways. The cultural and practical changes involved in a transition to dual-mode status need special attention in the training of ODL authors; this is an even more pressing issue for those who oversee their work at both a middle and senior management level. In addition, there needs to be wider recognition of the time pressures faced by dual-mode academics; this must be reflected in the timing and organisation behind the training and course development processes. Last, the calibre of the ODL editor/trainer is of key importance in dual-mode institutions because they play a central role in ensuring the quality of ODL staff and course development.

When and for how long is training provided?

28. Among the institutions, there is a consensus that training is likely to be most effective at the point where people are preparing to write actual course materials. In practice, however, this just-in-time ideal is not always achieved and there is often an interval between training and course writing. This is due to various factors: institutions often deliver a generalist training in mixed-course, group events which are therefore not necessarily held at the optimal time for *all* participants (this is typical of large-scale institutions with inflexible, rolling training programmes to which the trainees must accommodate); training is often delivered when the *trainer*, rather than the writer, is available; there may not be enough trainers at a given time; sometimes schedule slippage opens up a gap between training and course writing. In a few of the institutions, training is an integral part of actual course writing and the accompanying editorial support: first drafts provide the concrete materials around which to structure individualised and subject-specific support and advice.

29. Typically, group-training events were anything between one and five day's duration. Courses tended to be longer in institutions that trained only on a group basis; this was typical of developing-country, and particularly dual-mode, institutions.

30. Both the timing and duration of training are significant in dual-mode institutions: the dual responsibilities of academic specialists make it very difficult to find time for meetings, training and writing. The tendency, for those responsible for training, is to try to circumvent the time difficulties and cut costs by delivering training on a one-off, large-group basis (academics from a range of subject areas). Even where training is differentiated into generalist and subject-specific areas, time constraints make it logistically difficult to deliver them in close proximity. A very different picture emerges from single-mode institutions: their dedicated nature means that ODL academics are focused exclusively on the development of subject-specific ODL; staff tend to have more time and/or the opportunity to participate in a well-established and often diversified training programme. Paradoxically, these advantages can lead to a sense of inertia and complacency: a recurrent comment is the difficulty of injecting a sense of urgency into the writing and course production schedule.

31. To overcome time pressures, training for authors in dual-mode institutions needs to have different qualities from those currently on offer. It needs to be adaptable enough to fit around the schedules and demands of particular departments, course teams or individual writers. This flexibility might be achieved in various ways: a peripatetic editor/trainer(s) working simultaneously with different course teams and individuals; greater use of ready-made training literature for self-study; where feasible, just-in-time information and communication technology (ICT) to facilitate communication between course and staff development participants and possibly to provide on-line training and editing. Appropriate dual-mode training is likely to be course-led and course-specific;

available on demand and provided on an individual and small-group basis (although it need not rule out large-group induction training); delivered during the initial planning and writing stages of the specific course.

What other staff development options are available?

32. Before examining the typical content of author training, we will examine briefly where this specialist training sits within a wider staff development framework in the institutions. In industrialised-country and some single-mode institutions, the training is usually part of a much wider staff development programme, commonly differentiated into a range of options. Three types of options can be said to supplement the training of ODL authors: *complementary* (e.g. keyboard and general IT training); *further* (more specialist ODL or academic development delivered at a later date); *apprentice* ODL training (e.g. mentoring, work shadowing, secondments or work placements).

33. Staff in dual-mode institutions may benefit from the established mainstream staff development programme[1] particularly in terms of complementary training. However, without special strategies, time and cost constraints may preclude much, or any, further and apprentice training. This is particularly so for dual-modes in developing countries. As we have seen, their training tends to be offered on a one-off basis with few, if any, further opportunities in any of the three categories. A recurrent comment is their need for subsequent training at more advanced or specialised levels (although this is also true of single-mode institutions in developing countries).

34. There is a clear need for a broader range of staff development options in all three identified options. In developing-country, dual-mode institutions, training needs to be cost- and time-efficient but not at the expense of quality.

What is the content of training?

35. In the induction stage and within the accompanying literature, training for authors typically covers four main areas:

1. An orientation to ODL - examples include a history of ODL, ODL systems (tutorial, editorial chain), differences of ODL to teaching and textbooks.

2. Pedagogy - examples include underlying theoretical/pedagogical principles, promoting active learning, learner-centred materials, thinking about your learners

3. Materials development - examples include course development processes, course planning, the selecting and integrating of media

4. Good writing practice - examples include planning units, clear writing, interactive writing integrating readings and tutor-marked assignments (TMA's), print presentation (typography, format) non-discriminatory writing

36. Individual institutions commented that these areas were covered to varying degrees of depth and quality and we can identify the strong, weak and missing points of this agenda.

37. The direct value is the hardest to assess: it easier to identify weaknesses; it is difficult to distinguish the effects of training from those of additional support and guidance provided by, for example, editors, ODL advisers and project managers; quality depends on the effectiveness of

[1] Geared to and originally set up for face-to-face teachers

individual training programmes. What one can say, however, is that there was no suggestion that induction training could be dispensed with in favour of, say, experience developed on-the-job. This back-handed support and suggestions about problem areas which could be overcome with training, indicates a confidence that this initial stage can bring ample rewards such as the ability to work collaboratively; ensuring a focus on the learner; challenging a pre-disposition towards text-book or lecture-style writing; cutting down editing and re-writing; promoting greater consistency in the quality of writing in a single course; increasing output and assisting in planning and clarifying objectives.

38. To improve on current training provision, there is a consensus that training is often too narrowly focused on the specifics of ODL teaching: good training would recognise that considerable groundwork needs to be done *before* concentrating on the minutiae of open and distance learning. For example, if the starting point for good materials development was an informed understanding of the process of teaching and learning, then many of those involved were not at the starting point: many are out of date and need further education in their subject area; many have little knowledge of pedagogy and probably no training in education. Where subject specialists think of teaching only as transmitting knowledge (as opposed to facilitating learning), then their ODL writing is unlikely to be appropriate for independent learning. Two other fundamental areas also need to be considered: many academics need to know how to write in general, *before* focusing on the specialised demands of ODL authoring; others, for whom English is an additional language, need further language education in order to teach effectively in the English-medium.

39. The shortcomings of some ODL materials provide an insight into the consequences of ignoring this wider picture: many authors are not bringing pedagogic or publishing principles to bear upon their work and produce uninspiring and often out-of-date work in the form of reworked lecture notes or formulaic writing. The narrow focus of the content is not necessarily miscalculation on the part of the trainer(s) but closely related to the circumstances under which trainers work in many developing countries, particularly in dual-mode institutions. The brevity and one-off nature of training, added to the pressure to produce materials quickly, leads trainers *deliberately* to adopt an approach which equips novice writers with practical, if formulaic, frameworks for the immediate writing of ODL units. The assumption is, however, that these writers will then develop beyond this recipe-book approach in the course of further training and their course-writing experience. Sadly, this cannot always be assumed. The *lack* of subsequent training for the authors, the absence of rewritings and the expectations of a long shelf-life for the materials all conspire to enshrine this subject-centred, knowledge-dissemination model in ODL at the cost of a learner-centred and process-oriented one.

40. Transitional dual-mode institutions in developing countries are particularly susceptible to this chain of events because of time pressures. Under these circumstances, it is unsurprising that dual-mode academics often perceive ODL teaching as an imposed educational model to which they must reluctantly accommodate themselves; the type of training currently on offer not only confirms their worst suspicions but entrenches any existing low quality teaching.

41. The dual-mode institutions unequivocally confirmed an earlier conclusion: their special need for a far more comprehensive induction to ODL. This stood out in sharp relief to the responses of single-mode institutions which gave this area low importance. The clear picture that emerges is that ODL practitioners in these institutions would benefit from an approach which deliberately departs from a straitjacket model of ODL and instead presents its wider and context-specific potential. Suggestions from the institutions themselves included exposure to a broader range of existing ODL materials and course designs, case-studies of other institutions and close

examination of how factors from the immediate sociocultural context might be addressed in the course materials.

42. This now brings us to more specific content areas which were commonly identified as undervalued or missing. These can be categorised under three context-specific areas:

1. The subject-specific context
2. The socio-cultural context of the teachers and learners
3. The open and distance learning context

43. A recurrent theme was the *subject-specific* implications for training and course design: the need for editors to know more about the subject area in order to advise academics well; the need to reflect within the writing, design and pedagogical principles of the course, the languages, text-genres, modes of presentation and analyses which are characteristic of different academic subject areas. If students are to make a place for themselves within an academic discourse community then a constant diet of structurally simplified plain language, presented in a straightjacketed unit design, is not in their best interests.

44. It also appears that imported and imposed models of ODL training and course design have sometimes been inappropriate to the *socio-cultural* context in which the course is situated. Course developers need the opportunity to consider how aspects of their and their learners' immediate social context could be accounted for within the writing and design principles of a course. In developing countries, recurrent problem areas were how to reflect local educational practices, local knowledge, oral culture, English as an additional language, the position of and special needs of women learners, an absence of library resources, difficult study conditions. The institutional context in which materials are to be used also has a bearing on the form in which they can be developed and so on their training. Transmission models may, for example, be the de facto model of curriculum within an institution. Assessment procedures also have a bearing on the way in which materials were developed: if the teaching institution has a very formal assessment system, then teaching materials have to fit with this, even to the discomfiture of authors who would like something freer.

45. Training has concentrated on the detail of writing rather than the context within which it is to be done: the *open and distance learning* context. For example, many institutions indicated that the potential of different media is often poorly covered or regarded as an afterthought; this results in a lack of use or lack of integration with other components of the course. One emerging question is whether ODL practitioners unwittingly play into the notion of ODL as second-class education by failing to explore any distinctive dimensions that ODL might add to the educational process in substance or methodology.

46. Potential strengths include its capacity for resource-based learning; for offering self-paced study; for introducing learners to new media and teaching approaches and to varieties of text and illustration types; for extending educational opportunities to otherwise excluded learners; the intellectual rigour of team writing being reflected in the quality of the materials; the ability to expand beyond the academic team at the institution by importing outside academic writing; the potential to facilitate collaboration within and between institutions and speed up or simplify traditional practices, e.g. manual on-line editing or scheduling. The challenges of ODL also need addressing, e.g. the lack of the social dimension to education and the heavy literacy demands made upon learners who are often unpractised readers and writers (in both their first and other languages).

47. We draw the following conclusions from this discussion of content: in order to maximise the quality of ODL materials and to move beyond the tenacious recipe-book approach, ODL authors need very different opportunities for staff development from those currently on offer. In particular, we identify the need for broader-based training that is appropriate to the institutional and sociocultural context. Greater consideration needs to be given to the balance between generalist and more context-specific content areas, to the balance between initial and subsequent staff development, to complementary, further and apprentice type training. In developing-country, dual-mode institutions, training needs to be cost- and time-efficient but not at the expense of quality. To add to earlier recommendations, we feel these institutions in particular would benefit from greater exposure to resource materials (including samples of quality course materials produced elsewhere, how-to training monographs, samplers of technology use, general ODL literature and good practice guidelines). We also feel there is an unexplored potential for materials membership schemes, inter-institutional course development or course-sharing between institutions serving the same target levels.

What is the editorial chain in the course development process?

48. The editorial chain within the course development process plays a significant role in the training of authors (and in the quality of their materials). Generally, we found two distinct editorial chains in course production. The first is the course team, with writers, editors, media producers, instructional designer, graphics designer all with responsibilities for the overall planning, development and quality of materials. This model, drawn from the British Open University, is typical of large and well-resourced single-mode ODL institutions and is reliant on the majority of team members being dedicated, full-time faculty, or easily accessible. The second approach, favoured by dual-mode institutions that use part-time staff as authors, is a partnership of writer and editor. In contrast to the strict division of labour in the larger team, the writer but (mainly) the editor have to adopt a jack-of-all trades approach to course production.

49. In practice, as revealed by our research, many institutions use team configurations somewhere between these two poles. Larger team approaches have potential advantages: the division-of-labour can make for efficient production; there is also the potential for a more flexible approach to the team composition and particular team configuration may be appropriate to a subject area or for particular purposes. Smaller team approaches have the potential advantages of greater flexibility and control over the entire syllabus and production process and a greater sense of cohesion.

50. Quality in writing owes much to the iterative process of the editorial chain. The chain includes a complex combination of individual endeavour, peer review, editing, student/tutor feedback and external evaluation. In larger teams, the materials pass through and are refined in a chain to which numerous people contribute. The *number* of inputs of different team members can combine to benefit the learner. However, a small team does not necessarily mean that the editorial chain is inadequate. On the contrary, materials may go through just as many draftings and refinements in a small team arrangement. The point is that the editorial chain depends on the quality of the input, the commitment to teamwork and, on the part of writers, openness to advice.

51. In developing-country contexts, there appears to be a lack of iteration in practice. The editorial chain tends to be short with limited materials drafting within the chain; there is also inadequate, if any, feedback from tutors, students and external evaluation. Difficulties recur where there is lack of clarity about individual responsibilities within a team, where there is a lack of commitment to teamwork. These difficulties are typical of institutions operating under extreme cost and time restraints with limited ODL management structures. What emerges very clearly is

that the role and quality of the editor becomes of key importance in small teams, where the editorial chain is short and where, as in dual-modes, there is a greater use of part-time authors. In these, the editor takes overall responsibility not only for the course development process but also its sense of cohesion. Most importantly, they *represent* the learners' needs and play a key role in challenging the tenacious hold of the dissemination model of teaching.

52. One clear conclusion is that attention needs to be focused on strengthening the author/editor model and in particular to the training of editors working in developing-country, dual-mode institutions. Jenkins (1989:147)[1] has long identified this as an area which 'still awaits full recognition' and we fully endorse that view. There is also a need to develop the research base within the editorial chain, even at the simplest levels of small-scale pilot testing.

What technologies are used in the staff and course development process?

53. In industrialised countries and some well-established single-mode institutions in developing countries, support to trainees is available through a diversified mix of media - face-to-face, telephone, fax, mail, and email. The use of synchronous teleconferencing – audio and video – is also evident in training but reflects the geographical, rather than pedagogical, imperatives of smaller states or single-mode institutions with regional responsibilities.

54. There is a marked disparity in the penetration of information and communication technologies (ICT) between industrialised and developing countries, *between* developing countries and *within* developing countries. Three patterns are discernible and they appear to represent stages in a natural evolution of ICT in ODL: the first is where authors have no or infrequent access to computers for word-processing, and drafting occurs in hand-written form until the final print-ready stages; the second, where authors have access to basic word-processing at work and an institutional (rather than personal) email; the third, where authors have access to advanced computer hardware and software, intranet and internet facilities at work and often at home.

55. The first case appears typical of institutions in developing countries with a limited technological infrastructure. However, it is also apparent in the regional centres of single-mode institutions even where the central campus - often located in capital cities - is highly computerised. ODL practitioners in different locations of the same organisation, therefore, will have differential access to computer and training opportunities. The second pattern is the most common among the developing-country institutions. The last case is typical of industrialised-country and some developing-country contexts: ICT is used for different functions within the staff and materials development processes, but particularly exploited for its capacity to facilitate prompt and just-in-time communication and delivery of materials; to cut down on wasted aspects of the materials development process and thereby increase cost-effectiveness; by implication, these uses maximise the potential of face-to-face meetings.

56. Table 2 summarises the range of ICT uses evident in our sample.

57. Our findings have provided an insight into the potential of ICT, how it is changing the way we work and how it might evolve in ODL. Pressure to increase the use of electronic communication is coming from institutions wanting to use the technology, from funding agencies working on the belief that it could cut costs and, in industrialised countries mainly, from technologically literate and equipped students.

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[1] Jenkins, Janet (1989) Working with writers in Parer, Michael., *Development, Design and Distance Education*, Centre for Distance Learning, Gippsland Institute, Victoria, Australia.

Table 2: Uses of ICT in ODL staff and materials development

AREA OF STAFF/COURSE DEVLOPMENT	FUNCTIONS OF ICT
Training of authors & editors	• Email contact/on-line consultancy • On-line delivery of written exercises for prompt feedback • Editing using edit/tracking functions in word-processing software, PowerPoint presentations in induction programmes(with the diskette issued to trainees) • Diskette or on-line templates to download with ready-made style sheets (providing authors with presentational ideas, housestyle standard) • On-line training resources to download such as literature, bibliographies + links to complementary sites • Bulletin boards
Writing of materials	On-line delivery of written drafts/exercise for prompt feedback
Editing of materials	Editing using edit/tracking functions in word-processing software
To communicate with course development team	Email Bulletin boards
To manage materials development (m/d) production system	To plan, schedule, monitor and control cost of materials production & publishing Typeset, design, illustration, scanning & layout

58. It is clear, however, that in many developing-country contexts, little is being done to exploit the potential of ICT at *all* three levels. One reason for this is that although practitioners within developing countries need to work within the technological constraints of a given institution and country, there is a tendency to fall into the trap of a developing country = low technology equation. This equation has restricted consideration of the potential of ICT and other media. We believe it partly accounts for the correspondence-course mould into which ODL seems locked in developing countries and the low emphasis placed on even the simplest of media combinations or basic computer skills.

59. In training, teaching and course production, ODL practitioners need to be awakened to the potential of media and ICT by exposure to innovative practices. The aim in training must be to exploit the potential of the *existing* technological level to the maximum but at the same time to anticipate and prepare for *future*, rapid technological advances and the potential of newer technologies. Dual-mode institutions, in particular, stand to gain much from the greater use of technologies which facilitate just-in-time communication and cut down on production delays.

60. In developing-country contexts, existing technology could be exploited more fully by focusing on basic ICT skills such as keyboard skills and word-processing (including the use of style sheets) and simple time-efficient strategies. The greater use of diskette templates[1], for example, could provide a simple but effective means of cutting down on aspects of editing (although these need to be used judiciously as they can have both a restricting and enabling

[1] Which use standardised unit style sheets and activity types. These are useful in promoting a standardised house-style in the materials and give authors ideas about presentation.

character). Similarly, computerised course scheduling systems could do much to systematise the course production process.

61. To anticipate new or future practices, trainers need to seek opportunities to demonstrate or experiment with new technologies and innovative media combinations on a modest trail basis; they need samplers of course materials and media approaches in different subject areas and in different styles. Computer communication could, in principle, be used to support training by allowing distance trainers and trainees to keep in touch after an initial face-to-face session. On-line consultancy and mentoring relationships might reduce spending educational funds on airfares.

Who is being trained?

62. In most institutions, the authors and editors of ODL materials are a mix of internal salaried staff and those recruited externally on a part-time basis. Dual-mode institutions in developing countries depend more heavily on internal salaried staff, employed on either a full or part-time lecturers.

63. The selection process of authors reveals different practices: in some institutions, authors are selected on the basis of academic excellence and speciality, recommendations, previous writing experience, motivation, commitment and publication history; in others, authors are chosen on the basis that they are the only academic available in a given subject area. Institutions in countries with a rich and diversified educational system will have the luxury of applying selection criteria as they have a wider pool of competent potential authors to draw upon; in developing countries, particularly small states, there may only be a small pool of potential academic authors.

64. Part-time, contract and regionally based authors can present logistical difficulties in training: they may attend central induction training but not subsequent advanced or specialist workshops. The lack of an outreach capacity in large institutions and a paucity of written training material adds to the problem.

65. The use of internal and external, salaried and contract ODL writers raise difficult issues of parity. Some institutions prefer using externally contracted authors because it gives them a greater degree of control over the course production schedule and the selection of suitable authors. However, these advantages need to be very carefully weighed against other considerations. A hire-and-fire philosophy towards course writers is difficult to apply where there is a general shortage of writers. It also works against the aim of integrating the two different teaching modes and promoting harmony between on and off campus work. That is to say, it may actually *formalise* a second-class view of ODL. There is the suggestion that, in an effort to achieve parity of esteem, ODL authors in dual-mode institutions tend to produce writing, which has formal textbook characteristics, and to have a lowered concern with ODL pedagogy and training. The appointing and training of *internal* ODL course writers, full or part-time, would go a long way towards achieving this parity of esteem.

Who is doing the training?

66. The trainers were mainly full-time, salaried staff within the institutions and tend to play a key role in steering the development of a course from original concept through to finished product. As noted above (para.7), they are referred to in a variety of terms but tend to be called editors in small course development teams and operate as jack-of-all trades, including as the main trainer of authors. Where resources permit, they may call on supplementary help from specialist trainers, mainly from leading ODL institutions. They have been trained *themselves* in a combination of ways: in-the-deep-end experience; self-instruction using published ODL literature; by short-term visiting consultants from leading ODL institutions such as Indira Gandhi National Open

University, Deakin, Athabasca, International Extension College, Open University, University of South Africa; in the course of joint projects; study visits; formal courses, either face-to-face or at a distance.

67. In developing countries, the emergence of some highly skilled local ODL practitioners - trainers, editors and authors - is evident. In part, this is a measure of the success of ODL pioneers (from places such as IEC and OUUK) and of the shift in aid policy towards in-country training. Some of these practitioners are being promoted to middle management and their experience is informing policy in ODL at both course and institutional levels.

68. However, this success is also matched by evidence of a higher attrition rate among those practitioners and most particularly in African countries. Two factors seem to account for this: first, a lack of institutional support and a minimal career or reward structure; secondly, evidence of academic tourism in overseas study visits. In the absence of institutional support, skilled ODL trainers are easily poached by the prospect of higher professional and financial reward elsewhere; their skills and rarity make them highly desirable to institutions in other countries, most of which are implementing ambitious strategies to expand ODL provision. Evidence also suggests that some participation on overseas study visits for training in ODL authoring and editing may owe more to academic tourism than to a professional motivation towards improving writing and editing skills; participants in such courses are often highly motivated, academic careerists with their eye on high level management posts, not necessarily related to ODL.

69. Whatever the reason, the affect of this attrition rate is significant in developing countries: where the pool of practitioners is already shallow, the percentage loss will be marked and will make a negative impact on a sense of institutional coherence or continuity. The absence of a framework of peer support or models is likely to be of particular significance to isolated practitioners working under pressure in dual-mode institutions.

How are ODL practitioners being rewarded?

70. The second part of this report will deal with this area in detail so we will only summarise what is working well and badly here. The issue of reward emerged as an important and undervalued area for all ODL practitioners. It had particular significance within dual-mode institutions in developing countries because the additional ODL responsibilities rarely attract additional reward (in either pay or time); they are considered as part of the regular lecturing contract. Matched with other pressures facing dual-mode authors, this is a powerful disincentive and is clearly impacting upon quality. Good quality editors, so vital in dual-mode institutions, take their skills wherever they are appreciated.

71. Developing-country institutions which do value their ODL practitioners, in some formal way, reap ample rewards in quality materials, team cohesion, individual motivation and institutional reputation. Sites of excellence are already apparent.

72. The reward issue is closely related to another identified problem - the general lack of support given to ODL practitioners within their institutions by managers - both senior and middle. Recurrent problems include poor course planning and time management and a general paucity of facilities or resources for ODL practitioners. Dual-mode institutions in the early stages of transition are, again, particularly vulnerable in this regard as they will have an emerging and skeleton organisational structure behind their ODL production and a shallow pool of experience and practice throughout the university.

Principles: what needs to be done

73. ODL has particular significance in developing countries. It has been adopted to assist in national development and in some cases plays a more central role within the national educational system than is the case in industrialised countries. Many educational institutions in these countries are developing or expanding programmes of ODL. *All* face difficulties in getting ODL materials written, to quality, and on time.

74. Our research, however, clearly establishes that the most severe difficulties were found within developing-country, *dual-mode* institutions. At the same time, there are strong educational and practical reasons for many countries to consider dual-mode approaches rather than the creation of a dedicated open and distance learning institution. Our main, overall recommendation is that the British aid resource would significantly advance the quality of ODL in developing countries if it were deployed in addressing the specific needs of these dual-mode institutions.

75. The transition from single- to dual-mode status brings difficulties that cannot be adequately met without special investment and strategic planning. Staff tend to have competing pressures, too little time for materials development, and, at least in small states, to be working in an environment where there is only a shallow pool of writers. The cumulative effect of low reward, inadequate training, dual responsibilities and ad-hoc institutional support has proved a recipe for low staff morale and poor-quality work; it has undoubtedly contributed to a widely-held view of ODL as a second-class form of education.

76. Our recommendations directly address this wider institutional picture. We suggest that special attention needs to be concentrated on the following *three* areas and particularly, but not exclusively, within dual-mode contexts:

1. enhancing the institutional support available to ODL course development teams
2. raising the standard and status of ODL
    - the professionalisation of ODL training and course development
    - strengthening the editorial chain behind course production
    - time-efficient strategies in training and course development
    - reward structure
3. adopting middle-term developmental aims

Institutional support

77. As we have indicated, many problems lie a long way behind the specific issues about training and must be seen in a wider institutional framework. Writers were only one group of the people responsible for developing the ODL capacity of an institution and their work was constrained by the knowledge, expectations, behaviour and attitudes of others. Questions of management thus had a significant bearing on the process of course development and so on the needs for training and arrangements made for it. In the words of one ODL practitioner,

> In our context, every content and type of training will have limited effect unless the will of the top management has corresponding operational mechanisms, relevant incentives and the sincerity to implement it successfully … I attach greater importance to the environment … than to the content and type of training.

78. For the effective development of open and distance learning, it is important to have an appropriate system of management and *unequivocal* support from key managers, at both policy-

and course-development levels. A general priority is to raise awareness about ODL among a broad base of stakeholders but particularly at senior- and middle-management levels.

79. This is important because the promise of ODL in developing countries has often foundered because it has been hastily implemented and based on limited, imported models of ODL which have proved inappropriate to different contexts. Managers and policy-makers need new opportunities to consider how different models of ODL – organisational, technological and pedagogical – fit in with national/institutional strategies and infrastructure. The difficulties involved in a transition to dual-mode status, for example, can only be addressed if they are appreciated. Broader-based and case-study approaches would help these managers to frame models and practices that are appropriate (and therefore durable) in the context in which they are working.

Raising the standard and status of ODL

80. Strategic planning is required to raise the standards and status of ODL in general at regional, national and institutional levels in developing countries. Strategies which would make a significant contribution to those ends include: the greater professionalisation of ODL training and course development; a core of highly–trained local ODL editors; remedies, technological and otherwise, to overcome the time constraints faced by dual-mode educators; the introduction of a reward structure for ODL practitioners (including parity of esteem between face-to-face and ODL teachers). Key players are required at all levels to drive through these strategies and changes. Committed support from managers would play a vital role in raising standards significantly within individual institutions.

The professionalisation of ODL – training and course development

81. Since ODL is part of a national strategy in developing countries, then it would be of general benefit to promote experience and excellence in ODL teaching for as broad a base of teachers as possible. The integration of ODL training into existing national and institutional professional teaching programmes, for example, would play a significant role in enhancing its' mainstream status and raising standards.

82. The greater professionalisation of ODL *training* might also include the following strategies: formal responsibility for training vested in a professional training/pedagogy department and in subject departments/faculties; significant investment in staff development programmes to allow for diversification into further, complementary and apprenticeship options (para.32); certification that course team members are experienced in the pedagogy required by individual courses; contractual obligations by *appointees* (new/old, full-/part-time, internal/external) to undergo training/instruction, as required, and by the *institution* to provide such training; the drawing up of learning frameworks for newly appointed staff (academics, editors, media, designers, et al) to indicate key conceptual and practical ODL areas/approaches in their professional fields.

83. ODL authors need different training content than those currently on offer. In particular, there must be a clear move away from the formulaic approach so characteristic of many training programmes towards far more broad-based approaches. Basic groundwork needs to be done in areas like teaching and learning principles, further education in the subject area, general writing development, academic English language development *before* approaching the specifics of ODL writing. Within the specific ODL training, there is a need to address *three* particular contexts which are greatly undervalued in present provision: the subject-specific context, the socio-cultural context and the ODL context.

84. The *methodology* of that training is also significant. Practitioners need far more opportunities of activity-based training rather than a lecturing approach; one that is based around their own context and embedded in real work activities. Hands-on writing activities and practical experience of other team members' duties would do much to demonstrate, to authors and managers in particular, the importance of teamwork within the course production process.

85. At the *course development* level, ODL needs to work to more exacting professional publishing standards and make a resolute move away from its, often deserved, reputation for poorly-printed packages with second-rate writing and undesirably long shelf-life. For example, greater commitment to *revised editings* would introduce commercial practices in ODL as well as play an important part in training. There is also the importance of signalling the prestige of writing and writing materials. ODL materials should be regarded as more than just internal desk top publishing but invested with a sense of importance and corporate identity by, for example, being produced by the University of X Press. This would also do a lot to promote parity of esteem between face-to-face and ODL teachers. Publishing-like *management systems* for course production would make team members aware of responsibilities, deadlines and the cost implications of production delays. Another area is a commitment to higher standards in the selection process of authors: the aim should be to single-out motivated, creative and pioneering academics committed to writing.

86. In this area, we feel ODL would benefit from greater contact with those working in book development. Clear differences exist between textbook and ODL course development but commonalities have often been overlooked.

Strengthening the editorial chain behind course production

87. Quality in writing owes much to the iterative process of the editorial chain and crucially depends on the quality of editorial input, a commitment to teamwork and, on the part of writers, an openness to advice.

88. The role and quality of the ODL editor becomes pivotal in developing-country institutions, particularly dual-mode, as they take overall charge of ODL author training and course development. Their jack-of-all-trade work has been long overlooked and they would be key drivers for improving author training and strengthening the editorial chain behind course production standards. They need, and are likely to be *able* to follow, a longer period of training than their hard-pressed, author colleagues. Investment in the development of a highly-trained core of local editors is likely to make a significant and long-term impact on quality. They will be the trainers, managers and policy-makers of the future in ODL.

89. There is also a need to develop the research base within the editorial chain and in the material, even at the simplest levels of small-scale pilot testing. Top of our list for ensuring quality is to try materials out on some students, even if it is only small numbers of atypical students. Dual-mode institutions, where the same staff are preparing materials and teaching the same course conventionally, are at an advantage here.

Time-efficient strategies in training and course development

90. Dual-mode institutions, in particular, stand to gain much from the greater use of technologies which facilitate just-in-time communication, cut down on production delays and alleviate the time constraints faced by hard-pressed academics. Very little is being done to exploit *existing* technological levels or prepare for rapid *future* technological advances (both in courses for students and within staff and course development for staff). Another time-efficient option would include the wider development of training literature for self-study than presently exists within

institutions. We also feel there is an unexplored potential for national and regional materials membership schemes, inter-institutional course development or course-sharing between institutions serving the same target levels.

Reward structure

91. Another significant contribution to raising the status and standards in ODL would be made if institutions were in the position to introduce a comprehensive reward structure for ODL practitioners, one that is linked to the training and course development processes. This area will be covered in greater depth in the second part of this report.

Middle-term developmental aims

92. Broader developmental strategies would make a significant long-term contribution to the quality of ODL writing. In particular, we recommend three strategies: promoting an increase in the pool of writers available in developing countries, literature donation schemes and an increase in evaluations of past ODL training projects.

93. In countries with a shallow pool of writers, one middle-term activity (considered basic in book development) would be to increase the pool of writers within developing countries. What is required is greater general opportunities for participating in broad-based writer training. These should be open to as many interested parties as possible from whichever field and writing activity (book development, ODL writing, different levels). It is only on the basis of this general grounding that good writers - ODL or otherwise - are likely to emerge in the future. This broad-based approach is required *before* tackling the specifics of subject-orientated writing and the minutiae of ODL writing.

94. Donation schemes could do much to address the general paucity of training literature. Examples are required ODL training manuals, research literature and samplers of course materials and media approaches in different subject areas and in different styles.

95. We have noted that evaluations of past training projects are thin on the ground. These would undoubtedly yield information about the effectiveness of different training approaches particularly if they took a much wider perspective of the whole course development process rather than focusing narrowly on one-off training schemes. We also believe that insights would be gained if those that conducted them were not *exclusively* by ODL practitioners, but involved other parties interested in the training of authors in general.

PART 2: REWARDING WRITERS OF COURSE MATERIAL FOR OPEN AND DISTANCE LEARNING

96. This part of the report looks at policies and management structures that will encourage the timely development of good materials.

Background: the survey

97. We have carried out a survey of practice in universities and colleges in both developing and industrialised countries. In many cases the information we have gathered is sensitive, either because of commercial confidentiality or because of continuing negotiations about staff terms of employment. For that reason, and in response to a commitment to those who have given us information, we do not identify any of them. This anonymous note records our gratitude to them all. The report also draws on information collected by IRFOL for other research activities.

98. As in the other enquiry our main focus is on developing-country institutions but with some glances at experience in industrialised countries. This survey also found similarities and differences: to take one example, northern universities do not always get work delivered on time but they get it in machine-readable format. Some developing-country universities have to assume that their authors will deliver hand-written text.

99. We have gathered information mainly about the development of materials in print. Many of the findings are also relevant to computer-based teaching in various formats, though this is presenting some new complexities, which are referred to again at the end of the report.

Context: organisational structures

100. Universities and colleges of many kinds are using open and distance learning. This almost always requires them to invest in the development of teaching materials which are then used and exploited by the university. This is a different kind of activity from conventional university teaching and one which changes some aspects of the relationship between an academic staff member and the university. The staff member is no longer a sole practitioner, with near-total control over teaching and writing, but one of a group of people where the university has an interest in controlling and exploiting their work.

101. Universities have developed various different structures for the management of open and distance learning. *Three* pairs of oppositions help in analysing these structures and drawing conclusions from their experience: between industrialised and developing countries, between single and dual-mode institutions, and between the use of internal and external writers.

102. First, the main difference between institutions in the north and the south is, of course, that the former are likely to be richer and to work in a richer environment. Universities in the north should find it easier to identify competent potential course writers from outside their own walls: in many countries in the south there is only a small number of available potential writers in many areas of university teaching. These difficulties are likely to be greater in small states. Life, for the manager of open and distance learning as for the rest of us, is easier if you are rich.

103. Second, as before (para. 3 and 4) we distinguish between the experience of single and dual-mode universities.

104. The third contrast is between the employment of writers who are internal to the organisation and those who are external. Practice here does not map on to the distinction between single or dual-mode. Some open universities employ mainly internal writers, some external. Some dual-

mode institutions have taken the view that their off-campus teaching must match teaching on-campus as closely as possible, pressing them to use on-campus authors, others have found the pressures on their internal staff so great that they use external writers. Some have found a halfway house, employing postgraduate students as course writers and arranging for them to work under the close guidance of regular staff members.

105. Universities also differ in the location of responsibility and power and the extent to which this is centralised or decentralised. Responsibility may tend to rest with a central administration, or with deans of a relatively large faculty, or with heads of department. Senates may be large or small, strong or weak. Control of budgets may be centralised or decentralised. All these factors will affect the way in which those running open and distance learning can influence decision-making.

106. Many universities have set up centres with responsibility for the management of open and distance learning, under different titles. (For simplicity we have used the term 'flexible learning centre' in this report, even where we are reporting experience from a unit with a different title.) They vary in the extent to which they have educational as well as administrative responsibilities. In some cases a flexible learning centre plays an active role in the selection of courses to be offered through open and distance learning, provides educational advice on course development, manages student support services, and controls the budget for these activities. At the other extreme, some centres have purely administrative functions, acting mainly as reprographic and distribution centres. After years of argument, in which they urged that open and distance learning should become a mainstream activity, some, in industrialised countries, have now reached an apotheosis of abolition, with all responsibility for the renamed flexible learning being devolved to departments.

Problem: its nature and complexity

107. The change from conventional university teaching brings in its train changes in the way academic staff work. Historically there was a clear division between teaching, for which academic staff were rewarded by a regular salary, and writing which was either done as a research activity, with rewards from prestige and promotion, or under contract with a publisher, with reward from royalties. Intellectual property rested with the teacher not the university, and issues about it did not arise in relation to teaching. Respect for academic freedom meant that copyright in work produced by university staff rested unequivocally with the staff member. University television began to change this in British universities where universities, with heavy investment in equipment for teaching and in non-academic staff such as television producers, wanted to retain rights over teaching materials developed by their staff in a new medium. The development of open and distance learning aggravated the problem.

108. There are, then, conflicts of interest within universities. Universities, or departments or units within them, that are investing in the development of materials for open and distance learning, want to be assured of a return on their investment and so want some rights over materials that are produced within or for the institutions. Good materials development may bring its rewards in the long run but demands money up front. For their part, academic staff want to retain intellectual property both for academic reasons and because they may be able to exploit this through commercial channels. In dual-mode universities academic staff also have many other pressures on their time, from their on-campus students, from the need to research and publish, from demands that they undertake examining, consultancy and advice to governments. The needs of external students - perhaps future rather than actual external students - may bear heavily on a flexible learning centre but much less so on the individual staff member.

109. Furthermore, university management practices that are appropriate for conventional teaching do not necessarily fit the practice of open and distance learning. Where educational technologists work with authors, or teams of authors work together, it is no longer possible to identify unequivocally whose intellectual property needs to be recognised in a particular piece of teaching material. The measures used for assessing staff workload are no longer appropriate: you cannot easily translate measures in terms of contact hours into the amount of time needed to produce learning materials. Universities have made some progress in calculating staff norms for the production of materials, referred to below, but there is limited consistency about this. Inevitably norms will often be inappropriate or just wrong: some writers get paid far too little; some reach agreements that look over-generous.

Policy: how institutions have responded

110. Universities have developed a range of practices in rewarding authors. Their practice may be enshrined in standard agreements, often for outside authors, or in staff codes, usually for internal staff. They arrange how authors are paid, what they are paid for, what other benefits they receive, how much they are paid, where the funds come from, and how the process is managed.

How are authors paid?

111. Authors need to be rewarded. The reward may be in cash or in kind, and may go to them or to their department or employer.

112. Many authors are paid for writing teaching materials. External authors are normally paid, although there are sometimes constraints on this where the external author is a public servant whose scheme of service does not allow any additional payment from public funds. This is the case for both single and dual-mode universities. Some open universities rely mainly on internal, others on external writers. In some developing countries, for example, open universities have not wanted to build up large academic staffs, whom they would have to recruit in competition with conventional universities, and have therefore mainly relied on external, contracted, writers. These are often on the staff of conventional universities and expect to be paid a fee for work that is regarded as being done in their own time, over and above their regular job.

113. The position is more complicated for internal writers. Open universities do not generally pay their own regular, full-time, staff if they employ them as writers. Conflicting principles may be at work if we try to determine whether an internal writer in a dual-mode university should be paid. On the one hand, the labourer is worthy of his hire and authors may quite reasonably expect to be paid for work that is over and above what they are regularly required to do. On the other hand, a university may regard the writing of materials as something for which writers are already paid through their salary so that there should be no additional payment to them. If a university is moving towards bimodal status, but has not yet institutionalised this, it may agree pay authors who are members of its own staff. Where internal staff members agree to write course material, perhaps for a different department of the university and in their own time, they will generally expect to be paid a fee for doing so.

114. Where internal staff members in a dual-mode university are expected to write course materials, time has to be found for them to do so. Some dual-mode universities have developed formulae within their staff codes in which writing of materials is seen as part of their regular work along with other modes of teaching. Australian universities have generally adopted this approach. They may, for example, allow a reduction in contact hours to match an obligation to produce learning materials. For the rest, the need to release time means that funds need to be passed to a department in order to make this possible.

115. Several universities argue that there are advantages in making payment not to the individual but to the department. This involves the department formally in the development of teaching materials, which is likely to help in ensuring they are delivered on time. In some cases this has tax benefits: payment to an individual may attract tax at the highest relevant rate. It gives departments the opportunity to use income for purposes that appeal to staff members: for a conference or travel fund or to employ part-time staff. In some cases, too, payment to a department is made on the clear understanding that it will release the time of regular staff members for course development, leaving the department to buy in part-time staff to take over regular teaching duties.

116. Current practice is summarised in table 3.

What are they paid for?

117. As noted above, English copyright law and that of many common law jurisdictions, means that university teachers retain the copyright in anything they write unless there is an agreement to the contrary. In order to be able to reproduce teaching material and distribute it to their own students or those of other, universities, they therefore need to draw up agreements with writers transferring ownership of some or all of their intellectual property.

118. Practice varies. At one extreme, one northern institution has a standard contract which buys all rights, including moral rights recognised in the relevant national copyright law, from its external authors. In other cases, authors are required to assign more limited rights. There are three main ways in which these have been limited. One university asks for rights for a fixed period of five years: this protects the reputation of the author if materials begin to look out of date at the end of this period. In other cases the university acquires simply the right to use material in open-learning format, leaving all other rights with the author. Some universities have acquired rights simply on behalf of their own students, barring eventual use by another institution without further payment.

119. The narrower the rights assigned, the more difficult it is for a university to make its materials available to other institutions should it want to do so.

What other rewards do they get?

120. Benefits in kind may be as important as those in cash. Where a university buys only limited rights in teaching material, it may be possible for them to benefit from other ways of exploiting it. One southern university, for example, is quite explicit that it acquires and retains rights to materials in open-learning format but allows its authors to rework these as textbooks which can be published conventionally, with royalties flowing to the author and not the university.

121. Internal authors usually want the work they do in open and distance learning to be recognised for tenure and promotion. Three kinds of policy have been reported. First, teaching is in some cases explicitly recognised, along with research (and sometimes other activities such as administration or service to the community) as one factor to be recognised in considering tenure or promotion. Some universities have gone on to argue that the production of good teaching materials is a teaching activity, to be considered alongside other evidence of good teaching. To make this work, the principle needs to be clearly spelt out and actually used by the relevant promotion board: one university reports scepticism among academic staff as to whether due notice is taken in practice as opposed to theory. There is one further difficulty here. Where a team of authors has developed material or there has been a major input by an editor or educational technologist, it may be difficult to identify the contribution made by a particular staff member.

Table 3: Rewards to authors in four contexts

	Single-mode	*Dual-mode*
Internal authors	Authors usually not paid Most or all rights usually to university Authors recognised for writing in promotion Progress chasing most effective where department is committed	Authors sometimes paid, but writing may be regarded as part of regular duties. Payment may be to author, or to department. Most rights usually to university but authors may retain some rights to exploit materials. Authorship often recognised for promotion either as teaching or as textbook publication or (less often) as research activity Progress chasing most effective where department is committed
External authors	Authors usually paid Most or all rights usually to university Authors may gain public recognition and prestige Progress chasing reflects payment on delivery	Authors usually paid Most or all rights usually to university Authors may gain public recognition and prestige Progress chasing reflects payment on delivery

122. The second approach recognises that many schemes for academic promotion put greater emphasis on research than on teaching. In response to this, some universities have agreed that writing course materials should be treated in the same way as writing a textbook, with academic staff gaining similar credit for the two activities.

123. Third, some authors have argued that the writing of course materials should be treated as being analogous to the writing of research papers. Universities have sometimes been willing to accept this argument, partly to encourage staff to launch into open and distance learning, but the previous two approaches are more usual.

124. Questions of promotion or tenure do not arise for external authors. In some cases their recognition as writers for an open university is claimed as giving prestige. It is probably in everyone's interest for an open university to seek the best authors and for the latter to demonstrate their prestige and its wisdom by proclaiming the fact.

How much are they paid?

125. Authors may be paid a lump sum or a royalty. Institutions generally prefer the former but royalties have been used. In some cases, royalties have been paid for the development of a course

book, or book of readings, that may appeal to a wider market then the registered students. Some authors, with highly specialist skills and a high reputation, have been able to negotiate a royalty payment rather than a lump sum despite the general policy of the institution for which they are working, most often for the development of a book of readings, or where the writer has a unique skill and reputation.

126. Three approaches have been used in determining the level of payment to authors. The first is to estimate the length of time it would take a staff member to develop a given quantity of material and then compute a course writing fee according to, say, the mid-point on the relevant salary scale. Alternatively, second, some institutions have looked at the other possible sources of income for a potential course writer and sought to find a point of comparison with, for example, examination marking or work on curriculum development in order to calculate a writing fee.

127. A number of Australian universities have followed a third approach. Australian practice is to make no distinction between on and off-campus students, so that resources are allocated in terms of full-time equivalent students regardless of the mode of study. Their staff codes require academic staff to be responsible for teaching a number of student units a year. They may do this by conventional face-to-face teaching or by preparing open-learning materials. In the latter case, staff do not receive additional payment for this work. It is assumed that the extra work required in the first year in which materials are developed is compensated for by a reduction in hours spent on teaching in subsequent years. (One consequence of this policy is that costs per student are very similar for full-time equivalent students regardless of their mode of study. As part-time study usually has higher dropout rates than full time, costs per graduate are likely to be higher.)

128. A number of universities using the first of these approaches have developed formulae for the allocation of staff time to course writing. While the actual amount paid to course writers varies widely, reflecting local salary levels, there is some common ground in terms of the amount of writing time to be allowed for in relation to the number of learning hours which the student will devote to learning a particular amount of material. Universities have generally reported that they assume the ratio between writing time and studying time will vary between 3:1 and 10:1; in other words that it will take between three and ten hours to develop teaching materials that will require one hour's work from the student. While values tend to cluster at the lower figure, many institutions report that they would like to increase rates of payment and that these ratios are in practice exceeded so that their authors are underpaid. (A previous review of six institutions found figures of the same order, with allowances of about 300 hours to produce 120 learning hours of material but also noted that many authors in fact devoted more time to course writing[1]) There are, of course, marked differences in the time needed to develop self-standing materials from that for materials that are wrapped round an existing text: where authors are expected to produce one hour of learning materials in three hours of work they are usually writing learning guides with much of the content in existing texts. These figures are for the development of print materials: other media tend to require longer preparation time.

129. Several institutions also reported on the investment needed in editing, reviewing, copy-editing and preparing materials for desktop publishing. Generally these costs can be expected roughly to double the costs of the initial writing. While the lines between editing and preparation of text for desk-top publishing are becoming blurred, it is likely that the costs of employing an editor who brings educational and presentational skills to the development of teaching material will cost at least half as much as the original writing, and figures as high as two-thirds are reported.

[1] Reported in a University of the West Indies internal policy paper in 1994 (BDE P4 1993/94)

The work of external course writers is often likely to demand more work from an instructional designer than that of internal writers.

Where do the funds come from?

130. Both industrialised and developing country experience have shown that open and distance learning can have lower unit costs, in terms of students or graduates, than conventional education. But the development of new course materials often presents major funding problems to university bursars. While economies may be achieved over the life of a course, each new course demands investment in advance of student fees being available. The costs of teaching face-to-face are met, from regular budgets, on a single-year basis. In contrast, the costs of preparing teaching material, to be used over a number of years, need to be met in one year but may then have to be attributed to a number of years. Universities therefore need mechanisms that allow them to regard recurrent staffing costs as if they were an investment cost. The need for funding up-front is often a major constraint on course development and the costing issues have proved a particular difficulty for universities that are moving from single to dual-mode.

131. Most course development has been funded from universities' regular, recurrent, budgets. External agencies have sometimes provided funds: for exemplary projects, or to meet a particular and well-defined need for training. These are, however, exceptions and funding agencies, such as the development banks, have rarely been willing to treat investment in course materials as capital expenditure for which they will accept responsibility.

132. In some cases external funds have been available for the development of teaching material, always with strings attached. These have sometimes accelerated the process of course development: where funds have to be used within a given period, and products delivered to a funding agency, managers hopeful of more funding from the same source will press hard for timely completion. Industrialised countries have increasingly used central funds, for which institutions must bid, as a way of influencing policy. The centrally administered Staff Development Grants (CUTSD) in Australia and Teaching and Learning Technology Programme (TLTP) in Britain have made funds available for the development of teaching materials, especially in computer-based formats. One university reports that the quality of its materials was raised when it was contracted to produce them by a central agency and knew that they would be on view alongside those of other universities in the same country. In another case, central policy required that materials developed with funds, awarded in response to a bid, should be available free of charge to all universities within the national system. This is reported as discouraging some academic staff from writing materials which they hoped to exploit outside their own institution.

How is the process managed?

133. The prompt delivery of materials is not solely a matter of rewarding authors. Partly it is a function of time and experience: many institutions launching programmes of open and distance learning, and many authors before they begin to write, are over-optimistic about the time needed to develop materials. At the other extreme, some well-established institutions have developed a ponderous system that inhibits rapid production. While unrealistic timetables will not work, generous lead-times do not automatically ensure people will deliver on time.

134. Various strategies are used. Where dual-mode universities have persuaded departments to give active support to the development of materials, the department may feel a responsibility to ensure deadlines are met. There are examples of departments which have accepted the responsibility for progress chasing and themselves replaced a slow course writer. One university, for example, has arranged for course fees for external degrees to be shared between the flexible

learning centre and the relevant academic department, outside the university's regular financial structure. In this case the departmental pressure to deliver is heavy.

135. Generally, one member of a team working on course development will have responsibility for progress chasing. Often this falls to a staff member of a flexible learning department. Sanctions are then likely to be a matter for negotiation with the relevant department and their effectiveness to be a function of the location of authority within the university. Where external writers are employed, the university may be in a stronger position to press for prompt delivery; one institution, for example, identifies part of the writing fee as a bonus for early delivery.

136. These strategies have only a limited record of success. Developing-country institutions, regardless of their structure, report difficulties in getting materials delivered on time. In the north, the structures that appear to have had the best record of success are those adopted by single-mode institutions using internal authors, where there is no conflict between the demands of on and off-campus students and in institutions of various kinds which are in a position to pick and choose external writers recruited from a deep pool of expertise.

Principles: what needs to be done

137. The varied practice of universities, and the need to respect their autonomy, set limits to the value of any recommendations from current practice. Five conclusions follow from this analysis.

138. First, open and distance learning is often perceived as a second-class form of education. To avoid this in a dual-mode institution demands, in the words of one vice-chancellor, 'an unequivocal acceptance by the schools that their responsibility for external teaching is every bit as important as their responsibility for internal teaching'. Dedicated open universities are under pressure to ensure that their academic work matches in quality that of the best conventional practice. Dual-mode institutions need to ensure that they do not make their best teaching available only to students in one mode. Quality depends on departmental commitments as well as on the service provided by a flexible learning centre.

139. Second, there is no simple solution to the problems that follow from the competing pressures upon the time of academic staff. If a university is becoming dual-mode, and its staff cannot find the time to develop teaching materials, two options are open to it: the university can contract out the writing of materials or it can seek to buy in materials, perhaps through co-operation with other institutions. Either of these approaches may seem threatening and undesirable. Both are likely to imply that it sees its responsibility for the teaching of external students differently from that for internal students.

140. The third conclusion is consistent with the spirit of these two. The more successful approaches to rewarding course writers, and getting materials delivered on time, seem to be those where a staff member's department accepts responsibility for the work of developing materials, so that the regular departmental processes can be used to share out work and ensure that it is done. Financial arrangements that ensure benefits from the enrolment of off-campus students flow to departments have proved to be useful here.

141. Fourth, in considering intellectual property it is useful to separate issues of academic reputation from financial issues. University staff properly need to protect their reputation. They need to be able to ensure that what they have written is not distorted, and that they have an opportunity to change material that has become out of date. They may have an interest in how material is used: ethical considerations may be involved in the use of teaching materials in medicine, for example. These issues are of the essence of university teaching. Questions about

how academic staff should be rewarded for their work are separate, different and perhaps easier. It may be helpful to consider first what arrangements are needed to protect academic reputation and then, second, how authors should be rewarded.

142. Fifth, most of the experience so far has come from the development of print materials. The development of computer-based learning materials is more likely to complicate the problem than solve it. Copyright on materials in machine-readable format is difficult to control. Costs are likely to be higher. There may be a greater reliance on material, such as generic software, developed outside the institution; some of this material may prove relatively costly. The time involved in developing materials is likely to be greater, with the possible consequence that materials will be developed only by enthusiasts with considerable skills in information technology.

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