Chapter 6

Teacher education designed or framed

Michael Eraut

University of Sussex, Institute of Education, Educational Development Bldg, Falmer, Brighton BN1 9 RG, UK

Abstract

This chapter highlights conclusions from the previous chapters about factors impinging on the design of teacher education programs and then assembles a design brief informed by the research reviewed. It begins with economic and social factors impinging on the recruitment, preparation and retention of teachers. It then looks at overall national policy for teachers and teacher education. National indicators of teacher quality and the option of training teachers after a period in post are discussed. The focus then shifts to teacher education institutions and their staff, next to the design process itself on which several perspectives are offered. Finally it suggests that given the complexities of teacher education policy, a long-term strategic planning approach might be more appropriate than a more narrowly conceived design brief.

The five preceding chapters have unveiled the many complex factors affecting teacher education that were heralded in the introduction. Chapters 1 and 2 focus mainly on factors external to Teacher Education Institutions (TEIs), Chapters 4 and 6 relate primarily to design decisions taken within TEIs, and Chapter 3 uses case studies to examine how program designs in different countries arise from different combinations of governmental and institutional decisions.

Avalos (Chapter 1) reviews national policies for teacher education in developing countries within the context of more general policies for improving the quality of education in schools, with detailed examples from South America. Teacher education is being upgraded in level and increasingly incorporated within the Higher Education sector. But there is little sign of any concomitant improvement in the pay and working conditions of teachers, which remain sufficiently poor in most developing countries (and indeed many developed countries) to be non-competitive with other salaried occupations. TEIs have rarely changed their culture or developed their staff...
sufficiently to match the new expectations of a reforming school system; and are often seen as likely to constrain rather than facilitate changes in the school sector. The move of TEIs into higher education has usually been accompanied by a reduction in direct government control; but nevertheless indirect control is exercised through institutional accreditation, specified curriculum frameworks, coordinating agencies or funding arrangements.

Samuel and Stephens (Chapter 2) use case studies of two student teachers in South Africa to illustrate the complex cultural paths they have to travel to establish an identity within the heterogeneous milieu of contemporary urban life. Contemporary urban life is characterized in terms of multicultural settings undergoing rapid social change and an education system stretched by an ambitious program of reform. Not only do they have to learn in contexts very different from those in which they grew up, but they have to find a personal and professional identity as teachers that develops and sustains commitment to their work in order to contribute to the growing expectations of their society. For teacher educators, there is a need to support and contribute to this transition process both during and after qualification if new teachers are to continue in teaching with any significant level of professional motivation. The authors offer a model depicting the forces impinging on student teachers’ development of identity and role. The model contains inertial forces, stemming from biographical experiences of home and school, programmatic forces, emanating from the TEI program, school placements and the socializing influences of both college and practice schools, and contextual forces, derived from both the macro-environment of changing government policy and the micro-environment of the changing cultures within the schools where they teach.

Stuart and Tatto (Chapter 4) use five case studies of teacher education programs, located in countries spanning the spectrum of gross domestic products (GDPs), to address the interaction of external and internal factors in their creation and implementation. Comparisons across these programs illustrate both the range of design decisions and the options opened or foreclosed for teacher educators by the decisions and influences which frame their daily work. They begin with frameworks for thinking about teacher education: first the historical and cultural influences and current political pressures on the teacher’s role, then the prevailing assumptions about school knowledge and the knowledge needed for good teaching. Next they review structural parameters such as the length and location of the course, its timing within the teacher’s career, the positioning of teaching experience in schools, and the characteristics of their students. Nested within these ideological and structural parameters, come more detailed decisions about the nature of the curriculum itself, its goals and content and the processes of teaching, learning and assessment. It is these latter issues that receive prime attention in Chapters 4 and 5.

Thiessen (Chapter 4) reviews changing orientations to the practical component of teacher preparation in the North American context. The first orientation, Developing Impactful Behaviors, derived from the behaviorist approach to researching teaching which dominated the 1960s and 1970s. Distinct teaching skills were first studied in class, developed through simulated practice with observer and/or feedback, then finally transferred to the classroom. However, neither the program designs nor the
research gave much attention to the third classroom phase, leaving questions unan-
swered about the transfer process and long-term outcomes.

This lack of clear guidance for teacher education programs, combined with a gen-
eral move away from behaviorist epistemology, led to a second, Reflective Practices
orientation becoming increasingly prominent. This emphasized both a holistic per-
spective and learning in classroom settings, effectively replacing simulated practice by
a more thoughtful, critically interactive approach to classroom practice. Its two
distinctive features were the development of methods for facilitating learning from
experience and theorizing about that experience, and partnerships with schools using
trained school-based teachers as mentors.

The transition to what is still an embryonic third Professional Knowledge orienta-
tion has been prompted by changes in epistemology which recognize practical
knowledge as a distinct form of knowledge, interrelated with theoretical knowledge
but not derived from it. An important consequence is the need to address the
concurrent development of theoretical and practical knowledge in both TEI and
school settings (i.e., more engagement with practice in TEIs and more engagement
with theory in schools). While challenging both types of institution, this opens up the
possibility of learning partnerships (not just teaching partnerships), involving the
continuing collaborative professional development of both TEI staff and school staff.

Griffiths (Chapter 5) focuses on Thiessen’s second and third orientations to examine
all aspects of the reflective dimension in teacher education programs. She begins by
deconstructing the concept of reflection itself, which has been adopted uncritically by
many teacher education programs. She distinguishes between the approaches of
Dewey and Schön, and demonstrates with examples from research how the reflective
process varies with both context and the stage reached by the student teachers
concerned. During teaching reflection-in-action is a largely intuitive process but short
periods of deliberation are also possible. Reflection out of action is necessarily
student-centred and dependent on current student concerns. These evolve over time,
so the positioning of different forms of reflection in both school and TEI contexts and
at different stages in the course is a critical aspect of program design. Research on
reflection in school settings is discussed with reference to both mentoring skills and
evasive tendencies in some students.

Another issue is whether students should embark on teaching practice at an early
stage to set the reflective process in motion; or gain experience working with indi-
vidual or small groups of pupils and use that as a basis for reflection. In university
settings major issues concern the purpose and focus of reflection. Some start by
reflecting on previous experience of learning and schooling using an autobiographical
approach to develop critical awareness of assumptions about teaching. Some focus on
the critical study of practice incorporating research findings and theoretical ideas.
Others emphasize the critical study of the conditions surrounding practice including
characteristics of the school and its societal and policy environment. All three of these
approaches may be used separately or combined.

A notable feature of the research reviewed in these chapters is that, while it increases
our understanding of teacher education programs and their problems, it does not
yield solutions to these problems that are generalizable across national contexts or
even within them. Common themes can be found, but rarely common conditions and practices. One mode of research takes the form of social scientific inquiry into aspects of TEIs and helps us to understand the factors influencing the life and learning of their staff and students. A second mode is concerned with the evaluation of innovative teacher education programs.

Given variations in context, conditions and personnel, it is rare for such programs to be replicable, but many of their central features are potentially transferable, albeit with some adaptation. What are not transferable are the interacting combinations of such features that characterize a particular program. Teacher education programs in context are too complex to be encapsulated by research; so their design cannot be wholly research-based. But designs can, indeed should, be informed by research and improved by formative evaluation in context. Design, therefore, is most usefully conceptualized as a problem-solving process in which research informs the framing of problems and sub-problems, suggests possible positive features and provides warnings about negative consequences. It is a classic example of a phenomenon identified by Cronbach and Suppes (1969), for which the more traditional research approach of conclusion-oriented inquiry is ill-suited but the less conventional approach of decision-oriented inquiry is appropriate.

This final chapter, therefore, adopts a decision-oriented perspective, seeking to use analysis and research to guide the imaginary designer of a teacher education program. The word “imaginary” is used advisedly, because both Avalos (Chapter 1) and Stuart and Tatto (Chapter 3) have noted the distributed nature of decisions about teacher education. At national policy level, a strategic long-term approach is needed. What issues will need to be tackled first? What is the current, or desired future, relationship between teacher education and the school system? To what extent can teaching remain economically competitive with other jobs if teachers’ educational level rises? Are teacher education institutions and their staff capable of meeting the challenge of change? How could their capability be improved? In each particular national and institutional context one needs to explore the scope for redesigning teacher education so that it can better meet the desired combination of current and new goals. Alternatively, one may decide that teacher education is so tightly framed by factors outside its control that other framing factors will have to change first. In this case the only prudent policy is to keep teacher education on its current path until there have been changes in its context of sufficient significance to suggest a reassessment of the situation.

1. **Indicators of teacher quality**

Governments usually carry some responsibility for both the supply and the use of trained teachers. Since teachers themselves are of lesser concern to the populace than the much larger number of children, it is likely to be the user perspective which dominates the political agenda, even when the central or provincial/state government with responsibility for teacher supply does not itself employ teachers. Users are concerned about both the quantity and quality of teachers entering their schools. But
until recently, the focus on expanding the education system has led to a greater emphasis on quantity in the majority of countries, particularly those still seeking to achieve or extend universal basic education. Avalos (Chapter 1) notes that this has changed, though even quality is subject to a wide range of interpretations, depending on a country’s state of development. In developing countries the main indicators of quality are (1) the number of years of formal education teachers have received and (2) the proportion of teachers who have been trained. In more developed countries two further indicators come into play. They are (3) the relative level of academic achievement of beginning teachers and the rest of their age cohort at the same stage of education and (4) their level of knowledge of specialist content relevant to their job (i.e., how much mathematics has been studied by teachers of mathematics). All four of these indicators are capable of being represented in statistical form in most countries; and very few countries attempt to use further quantitative measures.

What is not so easily quantified is the quality of their teaching, especially after two to three further years of on-the-job experience. This fifth indicator of quality is of significant concern in those countries where there is a reasonable supply of well-qualified teachers. It is also the main aspect of teacher supply for which teacher educators are likely to be held accountable. The most substantial body of evidence gathered systematically is probably that reported by school inspectors in England and Wales, even though their methodology is not wholly secure.

Finally, in all countries there is yet one more indicator of quality, that of teachers’ commitment to their work. Opinions differ as to whether this is the result of teacher education, teacher selection or conditions in the schools after they have trained. The tendency is to attribute teacher performance to teacher education and commitment to school conditions, but these apparently common-sense judgements are not based on evidence. Some have argued that the first three years on the job are even more important, but again the evidence is lacking.

2. Economic factors

Both the number of teachers entering the schools and some of the quality indicators noted above depend on the wider economic and social context over which the government has at most only partial control. Economic factors can be usefully discussed in terms of user costs, supplier costs and costs incurred by prospective or serving teachers and their families. The main user cost is the wages employers need to pay to secure the services of the quality of teacher they believe they can both find and afford, and to retain the services of the teachers they already employ. They also have the option to respond to conditions of scarcity or wage competition by recruiting less qualified or untrained teachers and upgrading them, though this will also incur significant costs. We shall return to this issue later.

Supply costs will depend on whether the costs of general higher education, or even general secondary education, are included. This may be more appropriate in some countries than others. When there is separate provision of general education in
normal schools or teacher colleges, it may be best to include the additional costs incurred when costs per student are higher than in ordinary secondary schools or higher education institutions (Lewin, 1999). The proportion of tuition costs (real costs not fees) paid by government will vary considerably from one country to another; and there may also be variations within countries caused by differences in institutional expenditure, means-tested parental contributions, scholarship schemes, etc. Student living, travel and book costs may also be partly or wholly paid by government.

The costs incurred by prospective teachers and their families will be greater in some countries than others, and many of them may not have been fully paid by the time a teacher enters employment. So there will be a perceived or real and urgent need to recover that investment and/or pay off the loan. Their ability to do this will depend on the level of teachers’ pay. If both a teacher’s pay and other family income are low, finding a better paid job than teaching will be a priority; or if that is impossible, finding a second job with a consequent reduction in attention to their teaching. The better educated the potential new teacher, the greater will be the choice of jobs other than teaching. Hence increasing the general educational level of new teachers will increase both supply costs and user costs. Moreover, if students and their families cannot recover their costs fairly quickly, they will not choose (or may not even be able) to invest in education. Starting paid employment earlier may be a rational choice for potential new teachers, even if the pay is less than they would eventually get as qualified teachers.

This analysis has focused on the real costs incurred but choices are also greatly influenced by the opportunity costs. If there are better opportunities available when entering teacher education, then the opportunity cost will be high and recruitment will be low. If better job opportunities are later available to trained teachers, then the opportunity cost of taking employment as a teacher will be high and only a small proportion of graduates from teachers’ colleges will become teachers. The worst scenario for government is when it pays the cost of teacher training for those who do not enter employment as teachers. Often this is countered by contracts that commit teacher trainees to a period of subsequent employment as teachers. But this period may not be very long, and the incentive to teach well is unlikely to be high for those who see teaching as only a temporary phase in their careers.

3. Social factors

For national governments, regional variation could also be a major political issue. Differences in educational level and job opportunities can lead to higher recruitment of teachers in some regions than other regions. Teachers may prefer to teach in particular parts of the country. Some may need or want to remain living with their families, indeed this may enable women teachers with children to continue to work. There also may be strong social pressures against unmarried women moving away from their home communities. Issues of equity can become very complicated, and responding to them can be costly.
In order to respond to perceived variations in the demand for teaching posts according to their regional or urban/rural location, many countries offer little choice over the school to which teachers are assigned. Such posting arrangements, and the inevitable mass of appeals they engender, can become both costly to administer and open to abuse. The resulting discontent lowers many teachers' motivation and, in some cases, leads to their resignation from the service at the earliest opportunity.

Other social factors affecting the choice of teaching as an occupation include the relative status of teaching, the working hours and conditions, and other family duties in the home, the fields or even the family business. These may affect not only whether people become teachers, but also the hours they spend on marking and preparation, their engagement in further professional learning, their attendance record and their general level of commitment.

Less obvious but equally important are social expectations of who teachers are and what they do. Are teachers perceived as civil servants, professionals, technicians or functionaries who deliver a curriculum? Are they expected to be highly educated in their subject area or just sufficiently knowledgeable to pass on and explain words that have been already constructed by other, more distant writers? Do they have a part in cultural transmission, or does that lie outside their brief? Are they there to support cultural continuity or to prepare children for new roles in a changing world? Are they expected to encourage personal development and initiative in their pupils, to coach them for examinations to enter the next phase of education, or to help the maximum number of pupils to achieve basic levels of competence? Are they expected to care for children and be concerned about their welfare; and would it cause trouble if this resulted in them giving more attention to some pupils than others? Are they expected to handle multi-cultural or multi-lingual classes, or to handle disruptive pupils? There are many answers to these questions; and these may vary within contexts as well between contexts. Parents' views may differ, teachers' views may differ, the principal may think differently from the inspector, the curriculum may carry a different emphasis from that of the examination which purports to measure its achievement. Changing government expectations (discussed in Chapters 1 and 2) may also differ from those of local communities and their schools. All will affect both the kinds of teacher that teacher preparation programs aim to produce and the kinds of teacher found in schools five years after completing their training.

4. Policies for teaching and educational reform

This brings us to consider the kinds of teachers and teaching the government would like to see in schools to enable the education system to better contribute to national development; and to their aspirations for future reform. These could entail either keeping curriculum knowledge fairly separate from that encountered in children's daily experience and improving school performance, or trying to bring the educational system into a much closer relationship with other aspects of national development. Chapters 1–3 suggest that the latter is being given increasing priority. This is not the place to rehearse arguments which have led to schools preparing their pupils
primarily for the next level of education, often regardless of how many will reach it: or alternatively, providing pupils with knowledge and skills likely to be of immediate value when they leave school. In either case changes are being sought in teachers’ capabilities which have a direct relevance for the goals of teacher education programs. In order to achieve learning outcomes different from those expected in the past, teacher education faces two immediate challenges. How can it find or develop learning opportunities appropriate for these new goals, especially on-the-job learning opportunities in schools; and how can it develop in its teacher educators the capability to prepare student teachers for these new goals.

The first challenge requires that we explore the relationship between teacher educators and the schools. Apart from finance and agreement on goals, the central problem of reforming schools or improving their performance is that teaching is a practical as well as a cognitive activity. As Thiessen (Chapter 4) and Griffiths (Chapter 5) have pointed out, people learn how to teach through doing it, but they also rely on images of teaching for guidance (Carter & Doyle, 1995). These images give teachers confidence that they are doing what is expected, what is thought to be right. Reading about a new approach to teaching may appeal to one’s beliefs but unless that approach has been seen in action, there is no reassuring image when one tries it out oneself. Moreover, if students are not used to the new approach, they also will lack confidence until they have become used to it. So the prospects for a student teacher practicing a new approach in a school where it has not been used before are fairly bleak.

New approaches to teaching have to be first developed in schools. These may be project schools or laboratory schools closely linked to teacher education. The process needs leadership, teamwork and strong government support. From thence a phased dissemination process can begin with project teachers taking apprentices and acting as trainers and coaches. There are considerable advantages in teacher education institutions being involved as partners in such projects, both to use the skills of their staff and to ensure early awareness of the new approach, and eventually practical experience of it, for new teachers. There is evidence from some countries that newly appointed teachers can help to carry innovatory approaches into schools when the schools already want them and can get the in-service training they require from other sources. For this form of dissemination to work well, good coordination is needed between changes in the teacher education program and changes in the schools where their students practice and start their new careers after qualification. Teacher educators also need to have the right capabilities to contribute to the project, and good experience of working with schools, a dimension of teacher education of considerable importance in normal times when no new reform is being launched.

5. The role of schools in teacher education

Regardless of whether reforms or school improvement projects are on the national agenda, the school-based part of learning to teach is vital. Seeing other teachers teach and getting support and advice from them is important for the student but highly
dependent on how the school handles periods of teaching practice. The socialization
effect of the school is very powerful, and even in classrooms, visiting teachers may feel
constrained by the working patterns and practices with which the pupils have become
familiar (Samuel and Stephens, Chapter 2). Students will derive most benefit from
being placed in schools where there is a positive commitment to teaching and teachers
share their experience and help each other, and where there is a deep concern for
pupils’ learning above and beyond the routines of daily teaching. Where teacher
educators have established good relationships with schools, they are in a good
position to encourage the learning climate among teachers and to facilitate the
development of organizational patterns that support their student teachers’ learning.
Such liaison work is time consuming and its importance may not always be appreci-
ated; but it may have as great an effect on students’ classroom performance as
anything done in college.

When students from the program get jobs in the same schools, yet further advant-
ages accrue. Probably the most critical period for the development of teachers’
classroom practice is the first two years after qualification. Starting in a school with
the advantages of a partnership arrangement and the stimulus of receiving student
teachers can be of considerable benefit, as will be some continuing contact with their
college and its array of interpersonal networks. Thus partnerships with schools need
to be an integral part of teacher preparation programs (Thiessen, Chapter 4).

Such partnerships can be even more beneficial when in-service education is also
involved, or action research by teachers. These issues are beyond our brief except for
one important benefit. Partnerships which also involve in-service education and
research determine the kind of institutions in which teacher preparation programs are
situated, and affect the kind of staff they recruit and the teacher education capabilities
they develop. The nature of teacher education institutions and their staff is a critical
but little researched factor affecting the quality of teacher education programs. It also
should be mentioned that those countries who seek to develop what might be called
ambitious concepts of the teacher role, or who expect their teachers to work under
tense and difficult conditions, will need flexible, resourceful teachers with high levels of
practical capability, creativity and imagination. Both teacher educators and staff in
partnership schools will also need these qualities.

6. Initial training for serving teachers

At this point it is useful to reconsider the alternative or parallel strategy of
concentrating teacher education resources on untrained or under-trained teachers
already serving in schools. This strategy has the advantage of reducing wastage,
because such teachers will have already demonstrated their fitness to teach and are
more likely to remain in teaching after their training. New entrants to teaching may
have the benefit of a better general education, but those already in service will have
gained basic confidence and competence in the classroom. Some programs might
regard the priority as remedying a presumed deficit in the general education and
specialist subject knowledge of untrained teachers. Others, while not neglecting those
issues, focus rather more attention on further developing classroom capabilities and possibly preparing teachers for roles as senior teachers or mentors of student teachers.

Compare for example the Mexican and Malawian programs described in Chapter 3. Untrained teachers with good relationships with their pupils might as a result of training become excellent change agents who could take new teaching approaches back into schools where they were already respected. They might have more chance of success than trained novices, especially if they were trained in pairs who could support each other. All this would depend on good selection and having groups of teacher educators who are prepared to work with experienced but untrained teachers in developing new approaches to teaching, rather than preach to them about methods which they themselves had never used.

7. Teacher education institutions and their staff

This discussion has tended to assume that Teacher Education Institutions (TEIs) are capable of handling their responsibility for teacher preparation and adjusting their practice to new goals as required. Contributions by teacher educators to school reform and in-service education have also been suggested. However, in many countries it has been noted that TEIs are very conservative, traditional institutions (Avalos, Chapter 1) which appear to be almost immune to change. Four factors are of particular importance in shaping the nature of TEIs: their institutional histories and traditions, their staff, their level of participation in educational matters outside their core business and their positioning with respect to the relative status of different kinds of knowledge. The most problematic TEIs are those normal schools which provide a rather dated form of general education, show little interest in school pedagogy, and teach their students in a traditional way that provides an inappropriate model for how teachers in schools are expected to teach. Unless reformed, such TEIs will continue to put a brake on the development of the whole education system. The most advantaged, though also the most expensive, are situated in good universities and attract good students; but still give as much weight to practical experience and classroom performance as they give to specialized content or educational theory. Such institutions have developed a strong network of partnership schools and are also engaged in the provision of practice-related mid-career courses and problem-oriented educational research (Stallings et al., 1995).

Four common problems are associated with some TEIs. They are:

- the isolation and lack of vision which characterizes monotechnic institutions with little involvement in wider educational concerns;
- staff who have been in post for some time, have developed little, and have little conception of what the contemporary role of a teacher educator might be, let alone the capability to practice it;
- static management who lack the capacity to develop the institution and move it forward; and
a dominant epistemology which accords little value to the practical knowledge required by competent teachers, focusing instead on general education (traditional), specialist subject content (higher education teaching) or social science research to the exclusion of other types of knowledge.

The fourth problem is associated with the relocation of TEIs within universities in order to avoid the first three problems. A major issue for the management of TEIs and the design of their teaching programs is how to achieve a good balance between different kinds of knowledge and to enable student teachers to link them together and integrate them (Thiessen, Chapter 4). This is not just an issue of course design, because most teaching staff are likely to be specialists in one type of knowledge and either generalists or novices in the other. So staff cooperation and teamwork are essential for the implementation of even the best design. TEI management and teaching staff rarely receive any training for these challenging roles, and their capability to handle them may not be given sufficient priority in their appointment. There are TEIs in some countries that do not suffer from these problems, and it is they who contribute most of the research literature on teacher education. Hence, one has to be careful in seeking to apply the more complex literature on teacher education (or even the more complex literature on teaching in schools) to the design of teacher preparation programs for institutions where circumstances and priorities are very different.

8. Perspectives on the process of program design

It is assumed that program design is intended either (1) for updating and/or quality improvement within an existing context or (2) as part of a change process in which alterations to current parameters have been agreed and can be reliably expected to be implemented. It is not assumed that TEIs acting autonomously can design a program. Rather, TEIs will probably have to negotiate teaching practice arrangements with schools and may also have to gain approval for their design from university councils, governmental departments/agencies, or both. A more radical process, the systemic reform of teacher education as part of a long-term government policy will be discussed in a subsequent section.

Eraut (1976) published an analysis of curriculum development processes in TEIs in the UK at a time when they all had to redesign their teacher education programs to fit a new national policy. He argued that the complexity and variations were too great to be encompassed within a single model of curriculum development; and recommended the use of six perspectives, each offering its own practical interpretation of the process. This enabled insights from politics, management, sociology and social psychology to be brought to bear upon the problem as well as those from curriculum development theory. Updated versions of these perspectives are discussed below.

Political perspectives can be both external and internal. When the design process has been triggered by changes in national policy, issues concerning the interpretation of that policy will remain; and some of them may not become apparent until the design process is well under way. Particular interpretations may be accepted or
challenged by members of the TEI, particular people may be accepted as trusted interpreters of policy, or there may be negotiations with government representatives about what might or might not be acceptable. At the very least TEIs are advised to do their political homework. Discussions with schools also may have an important political dimension. TEIs used to be renowned for their high-minded behavior, although this has changed in many countries. Unless schools are treated as partners their cooperation may be minimal and the quality of student teachers’ school experience put at risk. The choice of schools is also a delicate task. In certain areas, particular schools can wield considerable influence through their parents, staff and political connections which it would be unwise to neglect. A balance has to be found between good teaching schools and schools which may be more representative of those where most student teachers will get their first jobs. There may also be good political reasons for choosing a group of schools that is representative of the full range of local communities. All these decisions may affect what the schools are able to contribute to the program of teacher preparation as well as the cost and time spent in visiting them.

The internal politics of the TEI may also be very influential. There may be fierce ideological disputes among the staff that have to be either silenced or resolved; there may be disputes over academic territory. The influence of departments within TEIs is often proportional to their size, which in turn depends on the amount of teaching they do. Hence, curriculum decisions, which change the balance of content within the teacher education program and cause some departments to gain territory and others to lose it, are political as well as educational; and alliances formed for other micro-political purposes may continue to operate in the arena of program design. Moreover, individuals involved in curriculum decisions may try to use it as an opportunity to improve their status or their chances of promotion. Another common influence comes when a teacher education college is engaged in a collective attempt to improve its status and possibly upgrade itself into a tertiary academic institution. This causes it to emphasize higher general education rather than professional education, and demotivates those who fear they will lose out in any such change.

A second perspective on curriculum development derives from innovation theory. This is most obviously relevant when new designs are created at national level and then disseminated to TEIs, either as general guidelines, as a mandatory policy framework, or as an equally mandatory prescription or blueprint. Problems arising include variations in interpretation, and observing the literal requirements of a mandate while ignoring its rationale. This situation may arise from lack of understanding or the difficulty of developing new styles of practice. Similar problems can occur when innovations created in one TEI are later “adopted” by another. Sometimes adapted versions of a new design fail to follow its rationale, but often the greatest divergence occurs at the point of implementation when ideas have to be translated into practice. This implementation problem can also develop when the program design is created within the TEI itself, and then passed on to others to implement; and it even occurs when teacher educators try to implement their very own design. It is easy for those involved in designing a new program to get carried away by innovative ideas and fail to allocate the time and resource to working out how to implement them. Both
a psychological sense of ownership and the practical capability to translate new
designs into practice are needed for successful implementation of new programs in
TEIs.

While the political and innovation perspectives are often found in research litera-
ture on curriculum change in general education, that of group dynamics is not. However, a great deal of design work is carried out in groups whose behavior may be explained as much by personality factors as by differences in ideology or expertise. Leadership, group composition, and interpersonal behavior are critical factors in group creativity. Bureaucratic approaches to design may evolve by default as strategies for coping with dissent over group processes, rather than because they are preferred.

Another problem not receiving the attention it deserves concerns how the design process is managed. The role of management has two main aspects: managing the team itself, and managing its interface with the external environment during and after its main period of design. The team itself will need:

- a clear brief to start with, strong support and encouragement while it is at work, and tactful guidance through the terminal stages when its proposals may be criticised and modified prior to implementation. Although problem diagnosis or early development work may, and often should, lead to a reassessment of the situation and consequent renegotiation, the initial brief should always give clear guidance on resources and priorities. What will be the resource constraints in the future? What aspects of the task should be given priority? What resources are available to the team itself to support their development work; and how much time should they devote to their task? Can any relief from other duties be obtained? (Eraut 1976, p. 15)

According to its progress, tactful interventions may be needed to check that the team:

- analyses in sufficient depth the context and the problems their design has to address,
- avoids getting bogged down in minor matters before it has tackled the main issues, and
- uses whole group time for discussing major problems and decisions, while delegating the detailing of its conclusions and proposals to individuals or small sub-groups.

It may be helpful to introduce external consultants on occasions when the group needs information or advice on particular issues. Being prepared to reconsider aspects of the design brief can also be constructive where it is clearly feasible and might lead to an improved design: managers cannot be expected to anticipate all possible designs, and novel approaches are easily discouraged when there is an appearance of rigidity.

The management of the interface involves:

- seeing that information and expertise is fed into the team without them feeling unduly pressured;
• providing situations where the team can confer with external stakeholders such as schools, inspectors or government officials with the backing of their institution;
• enabling preliminary discussion of proposals on a provisional basis in a manner that (a) gives the team a steer without discouraging them and (b) starts the process of developing a wider sense of “ownership” of the new design; and
• taking responsibility for consultations after the team has completed its main work, further modifications of the design if required, and the transition from design to implementation.

Prime responsibility for integrating the political and innovation perspectives into the development process lies with management. This cannot be delegated to a design team that lacks the requisite authority, although they will still be key participants.

A curriculum theory perspective draws attention to decisions about the curriculum elements: objectives and outcomes, subject matter and its structuring and sequencing, learning experiences, teaching approaches and assessment (see Fig. 1 and the comparative analysis by Stuart and Tatto in Chapter 3). How are they formulated, conceived, and evaluated for their contribution to the aims of the program? How congruent are they with each other? In teacher preparation programs the range of
aims is usually so broad that conflicts of priority are inevitable. Not only do aims compete for time and attention, but they often lead to different approaches to teaching and learning. How far this problem is the result of traditional practice or inherent in the nature of the aims themselves is debatable. The pedagogy of the less practical aspects of teacher education is rarely researched. The net effect is that two major problems beset all teacher preparation programs. The first is achieving a design with an appropriate balance across its diverse aims, and then maintaining that balance during implementation. The second is developing and sustaining sufficient linkages between the various program components. Teacher educators tend to specialize in particular components, so that competition for territory threatens the overall balance; and few of them are prepared to take responsibility for linkages between the components.

For this and other reasons, a problem-solving perspective can be very useful in the design of teacher preparation programs. The range and complexity of the issues make a traditional approach to curriculum development where objectives are agreed, components identified and the work is divided among writing groups, totally inappropriate. Eraut (1990) has drawn on research into problem-solving groups in industrial and other settings to suggest a five-stage process, which is summarized here in a modified version:

1. Problem analysis and exploration of the constraints and opportunities offered by the brief;
2. Brainstorming several ‘images’ of what a good program or good components of such a program might look like, together with ideas about how some of the identified problems might be solved;
3. Creation of two or three prototype designs by mapping ideas from the brainstorming onto a curriculum model, combining those that seem compatible, then investigating the possibilities for the other curriculum elements;
4. Selection of an outline design by exploring the potential of each prototype, listing choosing its advantages and limitations (sometimes a new prototype may emerge at this stage), then choosing the design which offers solutions to the problems identified in Stage 1 and best meets the aims of the program; and
5. Further work is carried out to amplify the chosen design.

This model is an ideal-type rather than a blueprint; it illustrates important aspects of a problem-solving design process, whose stages will almost certainly overlap. There also is growing evidence that people rarely follow the multiple option model in practice (Klein (1993). They tend to home in on a particular option and check its adequacy, only moving to a second option if it is necessary to do so. The important principles are not to rule out new ideas that may initially, and before refinement, seem a bit “wild,” and not to foreclose on a favorite option too early, out of an impatient desire to get a quick conclusion. It is also important to recognize that in some countries such an approach would be culturally quite alien.

Stuart and Tatu demonstrate in Chapter 3 how greatly the task of designing a teacher preparation program varies with the context and the resources that can be mobilized for its delivery. But there are still common issues to be addressed in every
design, of which the most important is the range of capabilities that newly trained teachers are expected to demonstrate. There are chapters discussing teacher roles and capabilities in several handbooks and encyclopaedias, and many examples are cited in every chapter of this volume.

However, this literature can be deceptive when it comes to the practice of designing teacher preparation programs for three main reasons. First, many aspects of a teacher’s role tend to be taken for granted by the society in which they work. These may not be included in policy statements, which tend to emphasize desired new capabilities that are not demonstrated by many currently serving teachers. Second, these new capabilities may be aspirations rather than expectations. There may be few role models in the schools to enable students to observe and understand what a “new style teacher” might be like. Furthermore, other aspects of the school system, such as the examination system and the curriculum, may constrain the development and use of new approaches to teaching. Third, the more complex capabilities may take some time to develop. In addition, they may require secure foundations in less ambitious classroom practice to provide the requisite confidence. Many types of expertise take several years of on-the-job experience to develop; and there is little evidence to suggest that teaching is an exception. To expect “master teachers” to emerge from initial teacher training programs would be unrealistic. Achieving the aim of improving the quality of teaching requires that teacher development continue throughout the early years of teaching. Achieving modest standards during teacher preparation programs might be an excellent start to reform if one outcome was the disposition and expectation of further development on-the-job. Aims that are too ambitious may simply confirm that new and more challenging approaches to teaching belong to the domain of rhetoric rather than reality.

Hitherto we have discussed the intended outcomes of teacher education and the strengths and weaknesses of TEIs and teacher educators as important factors for designers of new programs of teacher preparation to incorporate into their problem analysis. A third critical factor is the student teachers themselves, for it is their identity and personal development and the impact of societal, TEI, and school expectations upon them that Samuel and Stephens discuss in Chapter 2. Their conclusions confirm two of the themes highlighted by Carter and Doyle’s excellent (1995) review of students’ preconceptions in learning to teach, namely that teaching is deeply personal and learning to teach is a negotiated process. The traditional problem of how to fit novices to the teacher education curriculum might be better reframed as the problem of how to fit the initial teacher preparation program to the learning needs of student teachers who are admitted after a prolonged apprenticeship of observation (Lortie, 1975) as pupils and an even longer period of socialization into their own community’s expectations of teachers. Even in cultures where the notion of a reflective practitioner seems anomalous, it is difficult to imagine how student teachers can negotiate their way through initial preparation programs and early periods of teaching practice without substantial periods of reflection on their predicament; although this may never be voiced in any public arena.

Finally, program designers need access to a repertoire of ideas, approaches, and practices that might be relevant to their own particular context. Chapters 2–4 are
intended to provide some guidance on this quest. But apart from a few examples cited in these chapters, information about teaching preparation programs in action in developing countries is difficult to obtain. This must surely be a priority for the future.

9. Program design in the context of the strategic reform of teacher education

This final section attempts to turn the design process described in the previous section on its side. Whereas in that section the TEI and its staff, and indeed the whole education system, provided the context and the problem addressed was the design of initial teacher education programs, in this section their roles are largely reversed. The whole education system remains the context, although viewed from a 10–20 yr rather than 3–5 yr time-scale; achieving the desired form of teacher education (i.e., the design for 10–20 yr in the future) becomes the main purpose. The problem is how to transform TEIs and, if necessary, the schools in which their students practice into organizations which can accomplish that purpose. This implies a long-term strategy for developing TEIs and their staff. Models for this are not readily found in the field of education, but in the field of strategic planning for the public sector.

This corporate planning approach involves:

- clarifying the mission of the organization(s), in this case the whole teacher education sector, and its mandate from government;
- ascertaining the various stakeholders, their interests and opinions;
- analyzing the wider national environment, the nature, probability and magnitude of long-term changes and the opportunities or threats they may bring;
- looking at the strengths and weaknesses of TEIs and how they might change over time with appropriate policies and resources;
- identifying the main strategic issues, then; and
- devising a clear but flexible, strategic plan (see Bryson, 1995, for a review of different approaches to this process).

An important aspect of such planning is the identification of areas of uncertainty and then assessing whether any of the uncertainly might be reduced by appropriate research. If so, there is a need to estimate the time by which the situation might become sufficiently clear to make better informed decisions. Deciding when to make such decisions and what can be progressed in the meantime is part of the process (Friend & Hickling, 1997). If there is a lesson to be drawn from this literature, it is to start thinking strategically about the long-term future to explore it broadly and systematically, to avoid making decisions too early; and to find ways to look forward and plan ahead that retain flexibility. Such a long-term approach might also benefit considerably from regional cooperation.

References


Michael Eraut is a Professor of Education at the University of Sussex (UK). For the past decade, the focus of his research has been on the nature of professional knowledge and professional learning in practice contexts, thus bringing a cross-professional perspective to teacher education. Most recently, he has been researching and publishing on the role of tacit knowledge in professional work, non-formal learning in the workplace, and the use of theoretical knowledge in practical situations.