

An Anthology of “Best Practices” in Teacher Education



National Assessment and Accreditation Council (NAAC)
Bangalore, India



The Commonwealth of Learning (COL)
Vancouver, Canada

An Anthology of “Best Practices” in Teacher Education

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Comments on the series are welcome, and may be sent to the authors or to Dr.(Mrs.) K. Rama at Email: ramakondapalli@hotmail.com or Prof. Mohan Menon at Email: mmenon@col.org

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FOREWORD

It is satisfying to note that significant, path-breaking efforts are taking place in the field of teacher education for quality improvement. This was demonstrated well by representatives of several Commonwealth countries who participated in the interactions organized jointly by the NAAC, India and COL, Canada, since 2001. At these sessions it was an eye opener to come face to face with several shades of emphasis and approach adopted in dealing with similar issues. These presentations reflected the distinct culture contexts of the respective countries with their specific hues of connotations, possibilities and outcomes.

Surprisingly, such interesting and feasible practices have not percolated into the common K-base of teacher education. It is time that all involved in the field share their experiences and thereby enrich one's own acumen in the field.

It was a common expressed view that a consolidation of distinct practices in teacher education that have contributed to quality improvement in the concerned institutional set up would be a welcome document. Towards realizing such a felt need in TE the NAAC-COL initiative was undertaken and attempt was made to consolidate the specific case studies as "best practices". It was decided that this compilation would bring out the specific institutional context, the perceived need and the actual effort made, along with the outcomes thereof. It is hoped that these case studies will act as good reading material and enable one to derive support, supplementation, newer directions, or, even redefine one's own processes. The present volume is the outcome of such concerted efforts by several teacher educators across eleven Commonwealth countries, a few of whom took the responsibility of reading the case studies through, render them into a format, edit them and bring out the entire text as a volume. Rightly enough this volume is titled 'An Anthology of "Best Practices" in Teacher Education'. It explicitly indicates that the Anthology is not an exhaustive one but needs to be added on continuously. Having gone through this, perhaps, several other such meaningful practices may come to light clarifying some aspect of teacher education afresh.

It is also one of the three components of the "Quality Assurance Toolkit for Teacher Education" brought out jointly by NAAC and COL. It is a pertinent that the volume has

a stand-alone feature while being a part of the Toolkit, which makes it possible to grow it further.

Several professional colleagues from across the globe have put in their mite in this project. Special thanks to Sir John Daniel, President and CEO, COL, who has supported this project in all its phases. I take this opportunity to put in a word of appreciation to the team of editors namely, Professor TKS Lakshmi, Former Professor and Dean, Faculty of Education, Banasthali Vidyapith, Rajasthan, India, Professor Johan Hendrikz, University of Pretoria, South Africa and Dr K.Rama, Deputy Adviser, NAAC, India, for their painstaking efforts in editing this volume. Professor M.B.Menon, Education Consultant, COL, Canada, needs a particular mention for the support extended on behalf of the COL as well as his contribution to the volume and the initiative and the interest he evinced in seeing the volume come through.

I do hope that this volume which is but a beginning to document impactful practices in teacher education in different country contexts will continue and provide a basis for conceptual breakthroughs in the K-base of teacher education as also bring efforts across countries on equal quality base. I am happy to present this volume to all concerned with teacher education.

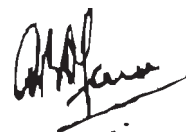


(V.S. Prasad)
Director, NAAC

PREFACE

The quality of a teacher's performance in the classroom and school context is determined largely by the initial academic and professional training he/she receives before being inducted to schools as well as recurrent in-service training and professional development support and the job experience gained on an ongoing basis. In spite of concerted efforts made by developing countries in the Commonwealth there are many factors which contribute to the lack of adequate number of trained teachers in the school system. Further to the issue of insufficient teacher output the quality of several existing teacher education programmes is also of great concern. The National Assessment and Accreditation Council (NAAC) in India and the Commonwealth of Learning (COL) started to work together responding to this concern for quality assurance in teacher education about three years back. The joint efforts of these agencies along with the expert support received from teacher educators of eleven commonwealth countries in the Sub-Saharan Africa, South Asia and Caribbean led to the development and publication of several resource materials. The latest in this list is the present publication titled "*An Anthology of Best Practices in Teacher Education*". This collection of best practices attempts to provide a platform for sharing several effective practices visualized and carried out by institutions/agencies offering teacher education courses and programmes through different modes both for pre-service and in-service teachers in the Commonwealth. There are twenty case presentations in this Anthology and in each of these cases specific reference to the quality key areas and indicators are made which it is assumed will facilitate practitioners to gain better insight into how certain indicator get manifested in practice. The best practices listed in this Anthology are neither exhaustive nor complete. Instead, adding more practices to these is a continuing process, which the NAAC and COL as well as the participating institutions/agencies intend to carry through.

It is expected that this publication would provide a good support to policy makers and practitioners across Commonwealth in formulating national and institutional level quality assurance modalities. These best practices alongwith Quality Indicators and other resource materials could be a very supportive set of materials for capacity building in this area.



(Mohan Menon)

Team Leader, Education Sector
Commonwealth of Learning (COL)

INTRODUCTION

Enormous efforts have been made the world over to enhance and sustain quality in Teacher Education Programmes (TEPs). The significance of TEPs has acquired added focus in recent years, particularly in the wake of worldwide efforts for Education for All (EFA). The quality of TEP directly depends on the manner in which the institution providing the programme operates. It is dependent on the way the institution translates the broader curricular concerns of TEP into its active processes and activities.

Every Teacher Education Institution (TEI) has a unique institutional ambience that evolves over time as spin offs from its day-to-day functioning. Simultaneously, it is this ambience that represents the quality of the institution. This means, quality of a TEI represents the extent to which the institutional ambience expresses sustaining concern for improvement in the day-to-day functioning of the institution. Within an institution with such concern for quality, greater clarity in respect of needs and their satisfaction will be reflected. Besides, each institution has to resolve its problems and pressures in one's own way despite the need to adhere to the 'given' overall curriculum framework. In doing this, every institution resorts to some actions as probable remedy and may find satisfying outcomes. In other words, among the several tasks and processes carried out, each institution may perceive some distinct task or practice to have contributed to its overall effectiveness as a TEI. Carrying out that practice becomes a heartening experience to both teacher educators and student teachers. Teacher educators gain a better insight into their functioning - not only in implementation but also in conceptual understanding.

In fact, despite the persisting universal criticism about the quality of functioning in the TEIs, several TEIs have carried on meaningful and commendable work. Some have carried on the routine in a distinct manner; some have attempted to overcome one or the other problem within the institution through evolving 'remedies' from within; some have attempted newer breakthroughs in curricular aspects; some have liaised with other institutions to try newer vistas of operations; some have monitored institutional processes for better efficiency; and so on. The attempt has resulted in sustaining the functional efficiency of the institution and so is called 'the best practice' in that institution.

"Best Practice" with reference to a programme may pertain either to a specific aspect/practice within the programme or to an entire programme. A "Best Practice" refers to an institutional

practice that exhibits characteristics of a quality teacher education programme or contributes to overall quality of the programme. The regular functioning within each institution over time tends to fall into a routine, irrespective of the extent of innovation it tries to sustain. In some institutions several meaningful activities or practices may seem ‘routine’ and teacher educators may not share them with others. Some institutions may seek to find practical solutions to some pressing needs in creative ways but feel it too small to share. For example, an individual teacher may try a different organizational mechanism for handling proper documentation of student participation in her class. Seemingly, it is an individual teacher’s attempt at finding her way about. However, having tried it, others in the institution may find it feasible saving considerable efforts, and so, may like to adopt it. Several such small but pertinent need based practices may have been tried out in institutions. Sharing them with colleagues of one’s own or other institutions would not only reinforce the institutions effort and promote furtherance of similar practices, but also provide motivation to other institutions to attempt to seek solutions on their own without external support. It is thus pertinent that teacher educators share their “success efforts” with others so that it leads to

- ◆ finding a possibility of effective practice irrespective of institutional conditions
- ◆ an assurance to try doing things differently
- ◆ a plausible alternative to some persisting concerns in some aspects of TEP
- ◆ an awareness about efforts of professional colleagues in different institutional and national/cultural contexts.

The outcome of concerted efforts of National Assessment and Accreditation Council (NAAC), India and the Commonwealth Learning (COL), Canada, this “*An Anthology of ‘Best Practices’ in Teacher Education*” attempts to provide a platform for sharing several such effective practices visualized and carried out by TEIs in various Commonwealth countries. Selected ‘Best Practices’ are presented as ‘case studies’. There are twenty case studies in this Anthology which, it is hoped, will be added to over time by interested organisations.

These case studies vary widely in their concerns. Some pertain to the theoretical inputs in TE while some pertain to practical inputs; some deal with organizational arrangements and ramifications attempted within the institutions for effective programme implementation; some even represent efforts at systemic improvements and alterations sought; some pertain to the entire curriculum framework of TEP; some deal with in-service programmes, some with quality

enhancement in TE through ODL, pre-service programmes, and the like. As recording such varied experiences had to be rendered reader friendly, the case studies are presented with appropriate details of the institutional contexts. Further to ensure some commonality in the format of presentations and provide scope for adequate representation of the practice an outline for the recording of practices was evolved (Annexure II) and used for writing the case studies.

In the meantime, a list of Quality Indicators (QIs) for TEIs has been developed under the joint aegis of NAAC, India and COL, Canada in which several senior teacher educators and other experts from eleven commonwealth countries were involved. The list comprises Six Key Areas that are central to the functioning of TEIs with 25 Quality Aspects and 75 QIs spread across these Six Key Areas (*Quality Indicators for Teacher Education, NAAC-COL, revised 2007*). It is pertinent to state that any activity in a TEI will reflect one or more QIs in respective Key Areas. One may not attempt a ‘Best Practice’ in terms of selected QIs with a pre-planned design. On the contrary, while the practice is tried out in order to attend to a felt need within the institution, it is bound to reflect one or more QIs in corresponding Key Areas. This is to say, there is always certain interactivity between QIs and ‘Best Practices’. The QIs also help in assessing the impact potential of the practice to the overall quality improvement in the TEI.

Accordingly, it is attempted to point out the Key Areas of quality; the Quality Aspects and the Quality Indicators dealt with as a part of quality assurance in each best practice documented in this Anthology. Every case study has an *editor’s note* indicating the main thrust of the practice. Quality Indicators addressed in the practice, as identified are presented in ‘boxes’ at appropriate places while detailing on the practice. This, it is expected, will point out how any activity/practice undertaken by an institution with clear perceived needs automatically covers more than one quality indicator and one or more Key Areas and their possible application in quality assurance exercise.

This Anthology showcases “Best Practices” in TE recorded from several commonwealth countries. These case studies are reported by well developed institutions having good infrastructural and human resources as well as institutions from remote and disadvantaged areas with resource scarcity and pressing socio-economic-political pressures. Each case study presents a distinct institutional perspective. It has to be seen as an effective practice within that institutional context, be it face to face, ODL or mixed mode and within a given resource-time

frame. On the whole, each case study represents a practice or effort within an institution that recorded '*visible quality improvement*'. It is possible that the best practice as such may not be applicable beyond the institution, which evolved it. So it is necessary that the institutions evaluate the practice for suitability to their context. For this, each case study apart from detailing on the resources required also suggests the requirements for adoption/adaptation. Through these case studies the kinds of efforts evolved by various institutions are brought into focus. These could be relevant pointers for other institutions to recognize the several internal processes that have been contributing to the sustenance of quality or the ones required for quality enhancement in one's own institution.

The best practices listed in this Anthology are neither exhaustive nor complete. Instead, adding more practices to these is a continuing process, which the NAAC and COL as well as the participating institutions/agencies intend to carry through. It is hoped that more TEIs record and showcase their 'Best Practices'. In fact, it is envisioned that TEIs across the globe get networked and there would be a dedicated space on the web where such case studies can be continually updated and accessed.

Quality Indicators for Teacher Education

Key Area I

Curriculum Design and Planning

1. QUALITY ASPECT *Institutional Vision*

Quality Indicator 1 *There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and is compatible with the regional, national and global expectations.*

2. QUALITY ASPECT *Process of Curriculum Design*

Quality Indicator 2 *Curriculum is visualized with adequate and appropriate interfacing of various curricular components including the goals and objectives through active deliberations.*

Quality Indicator 3 *The program has clearly laid down modalities, policies and regulations for implementation of curriculum.*

Quality Indicator 4 *It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.*

3. QUALITY ASPECT *Curriculum Content*

Quality Indicator 5 *The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.*

Quality Indicator 6 *The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.*

Quality Indicator 7 *The operational curriculum content is designed in such a way that it has adequate inputs for development of attributes expected in a school teacher.*

Quality Indicator 8 *While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.*

Quality Indicator 9 *The operational curriculum content has ample scope for varied learning situations both at the institution as well as at the school/field levels.*

4. QUALITY ASPECT *Curriculum Revision*

Quality Indicator 10 *The basis for curriculum revision emerges from the need to achieve the stated objectives effectively.*

Quality Indicator 11 *The institution undertakes curriculum revision on a regular basis in the form of continual deliberations on its substance, adequacy and updatedness.*

Key Area II Curriculum Transaction and Evaluation

5. QUALITY ASPECT Induction/Orientation

Quality Indicator 12 *Comprehensive orientation is given to freshers about the institution and the programme.*

Quality Indicator 13 *The institution has evolved its own process of induction thought out every year, and takes place at the commencement of the programme.*

6. QUALITY ASPECT Transaction of Theory

Quality Indicator 14 *The various courses of theoretical study are provided in order to develop an understanding and appreciation of teacher in a holistic educational perspective through dynamic learning experiences.*

Quality Indicator 15 *The instructional processes are geared to develop reflective thinking and practice both individually and in groups.*

Quality Indicator 16 *Curricular activities reflect interconnectedness among the various components of the programme.*

Quality Indicator 17 *The staff and students have access to technology and information retrieval on current and relevant issues.*

7. QUALITY ASPECT Transaction of Practical Experiences

Quality Indicator 18 *Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.*

Quality Indicator 19 *The school-based experiences are comprehensive and varied to include exposure not only to instructional role of teachers but also the other roles and functions of the teacher.*

Quality Indicator 20 *The process of nurturance and mentoring of student teachers is visualized and institutionalized.*

Quality Indicator 21 *The learning experiences are followed by feedback, reflection and follow-up.*

8. QUALITY ASPECT Assessment and Evaluation

Quality Indicator 22 *Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.*

Quality Indicator 23 *The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.*

Quality Indicator 24 *The mechanism employed for gathering, consolidating and disseminating evaluation data reflects fairness and transparency.*

Quality Indicator 25 *The institution employs ICT extensively in assessment and evaluation activities of the programme.*

9. QUALITY ASPECT *Teacher and Teaching*

Quality Indicator 26 *Teachers function as a team of efficient professionals.*

Quality Indicator 27 *Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work and visualize and carry out curriculum transactions according to the nature of the enrolled student groups.*

Quality Indicator 28 *Teachers provide a variety of learning experiences including individual, collaborative learning experiences and there is flexibility in their implementation.*

Key Area III **Research, Development and Extension**

10. QUALITY ASPECT *Research and Development*

Quality Indicator 29 *Teachers explore better ways of functioning and build upon their experiences systematically.*

Quality Indicator 30 *Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.*

Quality Indicator 31 *The institution has the practice of appraising its work through in-house research, institutionalize innovative practices and undertake formal sponsored research projects relevant in institutional and national contexts.*

Quality Indicator 32 *The institution adopts policies and strategies for adequate technology deployment and to use it for learning enhancement.*

11. QUALITY ASPECT *Community Engagement*

Quality Indicator 33 *Learning activities have a visible element for developing sensitivities towards community issues, gender disparities, social inequity, and similar issues.*

Quality Indicator 34 *There exists a preparedness for and incidence of extending service to other academic institutions.*

Key Area IV **Infrastructure and Learning Resources**

12. QUALITY ASPECT *Physical Infrastructure*

Quality Indicator 35 *The physical infrastructure of the institute is suitable and adequate for effectively implementing the programme.*

Quality Indicator 36 *The institution has sufficient resources for regular upkeep of the physical infrastructure.*

13. QUALITY ASPECT Instructional Infrastructure

Quality Indicator 37 *The teaching-learning material, ICT facilities, laboratories and learning resource centre necessary for implementing the programme are available and utilized on a regular basis.*

14. QUALITY ASPECT Human Resources

Quality Indicator 38 *Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.*

Quality Indicator 39 *Teachers seek to gain professional development through participating in in-house discussions and professional fora.*

Quality Indicator 40 *Efforts are made to up grade professional competence of not only academic but also administrative staff.*

Key Area V Student Support and Progression

15. QUALITY ASPECT System Efficiency

Quality Indicator 41 *The quality of the product of the program is satisfactory in terms of expectations from the field.*

Quality Indicator 42 *The reasons for dropout are acceptable and the dropout rate of the programme is well within the expected limits.*

Quality Indicator 43 *Institution shows concern for students' progression to higher studies and to a teaching career as well as their retention in it.*

16. QUALITY ASPECT Feedback Mechanism

Quality Indicator 44 *Institution values feedback and is responsive to feedback not only from within but also from schools and other external stakeholders.*

Quality Indicator 45 *The institution has a comprehensive feedback system in place through which relevant data/information is collected and collated.*

Quality Indicator 46 *There are evidences to show that feedback is used for development.*

17. QUALITY ASPECT Diagnosis and Remedial Programme

Quality Indicator 47 *The concern for the development of students, is reflected in the student monitoring system in place.*

Quality Indicator 48 *Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.*

Quality Indicator 49 *Institution plans and provides additional value added courses in relevant areas of specialization and remedial programmes as per the requirements of the students.*

18. QUALITY ASPECT *Guidance and Counseling Service*

Quality Indicator 50 *Institution has a well structured, organized, proactive guidance and counseling unit which is accessible to all students.*

Quality Indicator 51 *The institution has qualified staff and faculty for providing guidance and counseling services.*

Quality Indicator 52 *The guidance and counseling unit provides for activities contributing to a holistic development of the students.*

19. QUALITY ASPECT *Admission Procedure*

Quality Indicator 53 *The institution has an admission policy, which is appropriate, clear, inclusive and widely publicized.*

Quality Indicator 54 *Institution adheres to the defined admission criteria and the admission procedures ensure a fair and transparent admission processes.*

20. QUALITY ASPECT *Social, Cultural and Leisure Activities*

Quality Indicator 55 *The institution has infrastructure and facilities for social, cultural and leisure time activities for the students.*

Quality Indicator 56 *The institution promotes active participation of the students in social, cultural and leisure time activities.*

Key Area VI **Organization and Management**

21. QUALITY ASPECT *Internal Coordination and Management*

Quality Indicator 57 *The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.*

Quality Indicator 58 *Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.*

Quality Indicator 59 *The institution analyses the information obtained on monitoring and the outcome is communicated to the concerned leading to corrective measures for improving the effectiveness of activities.*

Quality Indicator 60 *The institutional leadership adopts professional management approach.*

Quality Indicator 61 *Gender sensitivity is reflected in the various aspects of institutional functioning.*

22. QUALITY ASPECT *Academic Calendar*

Quality Indicator 62 *The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.*

Quality Indicator 63 *The activities contained in the academic calendar are for optimizing effective and coordinated use of available resources.*

23. QUALITY ASPECT Faculty Recruitment

Quality Indicator 64 *The faculty recruitment is made by the institution in accordance with laid down procedure that attracts competent and qualified persons.*

Quality Indicator 65 *The institution follows a selection procedure that is clear and transparent and/or follows the stipulated requirements by relevant regulatory body.*

Quality Indicator 66 *The recruited staff has a pay and reward system that is at par with that of other institutions and as per the existing norms.*

24. QUALITY ASPECT Financial Governance

Quality Indicator 67 *The institution has adequate financial resources to run the programme without any financial constraints.*

Quality Indicator 68 *The fee structure for the programme is transparent with least unexpected add-on expenditure to be incurred by the students.*

Quality Indicator 69 *The sources of income for the programme in particular and the institution in general are legitimate and known.*

Quality Indicator 70 *There exists a transparency in financial management of the institution in terms of income and expenditure.*

Quality Indicator 71 *The income and expenditure of the institution are subjected to regular internal and external audit.*

25. QUALITY ASPECT Academic Quality and Management

Quality Indicator 72 *The institution has mechanisms to undertake internal academic audit of the programme.*

Quality Indicator 73 *In the management of the programme the institution adopts a participatory approach involving all the employees.*

Quality Indicator 74 *The institution uses a management information system for running the programme.*

Quality Indicator 75 *Mechanisms are evolved for regular performance appraisal of the faculty members by the peers and the head of the institution.*

Best Practices and Quality Criteria Addressed

SI No.	Case Study	Key Areas of Focus	Other Key Areas Covered
1.	Practitioner Oriented Post Graduate Programme in Teacher Education	Curriculum Design and Planning; Curriculum Transaction and Evaluation	Infrastructure and Learning Resources; Research, Development and Extension
2.	Quality Enhancement through Innovative Practice	Practice A: Curriculum Design and Planning; Curriculum Transaction and Evaluation Practice B : Curriculum Transaction and Evaluation	Infrastructure and Learning Resources; Student Support and Progression; Research, Development and Extension; Organisation and Management
3.	Teacher Capacity Building through Distance Education in a Developing Nation	Organization and Management; Student Support and Progression	Infrastructure and Learning Resources; Research, Development and Extension; Organisation and Management
4.	Multi Aspect Effort at Quality Assurance	Both Practice A and Practice B focus on Curriculum Transaction and Evaluation; Student Support and Progression	Curriculum Design and Planning, Infrastructure and Learning Resources; Research, Development and Extension; Organisation and Management
5.	Assurance of Quality Curriculum for quality Teacher Education	Curriculum Design and Planning; Curriculum Transaction and Evaluation; Student Support and Progression	Infrastructure and Learning Resources; Organisation and Management
6.	Green Teacher: Evolving an Innovative Curriculum in Environmental Education	Curriculum Design and Planning; Curriculum Transaction and Evaluation	Research, Development and Extension
7.	Towards a Comprehensive Teacher Education Programme: A DAV Experience	Curriculum Design and Planning; Curriculum Transaction and Evaluation	Student Support and Progression
8.	Towards a Wholesome Teacher Education – The AMRITA Experience	Practice A: Curriculum Transaction and Evaluation; Student Support and Progression Practice B: Curriculum Design and Planning; Curriculum Transaction and Evaluation;	Research, Development and Extension; Organisation and Management

Sl No.	Case Study	Key Areas of Focus	Other Key Areas Covered
		Student Support and Progression	
9.	Quality Processes and Institutional Sensitivity	Student Support and Progression; Research, Development and Extension	Organisation and Management
10.	Curriculum Improvement in Teacher Education through Research	Research Development and Extension; Student Support and Progression	Curriculum Design and Planning; Organisation and Management
11.	The Use of Mobile Phone Technology for Student Support	Research Development and Extension	Student Support and Progression; Organisation and Management
12.	School and Workshop Based Practice in Distance Teacher Training	Curriculum Transaction and Evaluation	Curriculum Design and Planning; Organisation and Management; Student Support and Progression
13.	Impacting Teacher Empowerment through Internship	Curriculum Transaction and Evaluation; Student Support and Progression	Curriculum Design and Planning; Organisation and Management; Infrastructure and Learning Resources
14.	Organization and Management of Decentralized Distance Teacher Education Programme	Organization and Management	Curriculum Design and Planning; Infrastructure and Learning Resources
15.	ICT Integration for Qualitative Improvement of Teacher Training Programmes	Curriculum Transaction and Evaluation; Infrastructure and Learning Resources	Research, Development and Extension; Infrastructure and Learning Resources; Organisation and Management
16.	Quality Assurance Framework for the Pivotal Teacher Training Programme	Curriculum Transaction and Evaluation	Research, Development and Extension; Student Support and Progression
17.	Collaboration for Interdisciplinary Post-graduate Course Development in Education	Research, Development and Extension	Student Support and Progression

SI No.	Case Study	Key Areas of Focus	Other Key Areas Covered
18.	Teacher Education Partnering with School Sector for Promotion of Quality Assurance	Curriculum Design and Planning	Research, Development and Extension; Organisation and Management
19.	Teacher Capacity Building through Distance Education	Curriculum Design and Planning	Curriculum Transaction and Evaluation; Infrastructure and Learning Resources; Organisation and Management
20.	Distance Education Inputs in Decentralized Teacher Development	Organisation and Management	Infrastructure and Learning Resources; Research, Development and Extension

Practitioner Oriented Post Graduate Programme in Teacher Education

Shironica Karunanayaka

Editors' Note

The emerging demands on teacher education programmes bring to centre stage the inadequacies of the existing face to face mode. Evolving TE Programmes through ODL is a logical alternative. The Open University of Sri Lanka (OUSL) has developed an international masters programme for teacher educators, which is a unique practitioner- oriented program. This case study reflects on how the pedagogical design- SBL impacted the quality. This case study illustrates the Quality Aspects (QAs) and Quality Indicators(QIs) mainly in three Key Areas (KAs) of functioning of a TEI viz. KA I - Curriculum Design and Planning Q A 1- Institutional vision (QI 1), QA 3 - Curriculum Content (QI 5) and QA 4 Curriculum Revision-(QI 10), KA II - Curriculum Transaction and Evaluation – QA 6 Transaction of Theory (QIs 15 & 16), QA 7- Transaction of Practical Experiences (QIs 18 & 21), QA 9 - Teacher and Teaching (QI 28), KA IV - Infrastructure and Learning Resources - QA 12 Physical Infrastructure - (QI 35) and QA 13 - Instructional Infrastructure (QI 37).

The Institution

The Open University of Sri Lanka (OUSL) is the only recognized university in Sri Lanka where students are able to pursue further education through distance education mode. Established in 1980, it is the largest university in Sri Lanka, with an enrolment of over 25,000 students. The Vice Chancellor is the principal executive officer, principal academic officer and the chief accounts officer of the university, while the University Council, the Senate and the four Faculty Boards are the other main authorities.

The OUSL is open for any person over 18 years of age and with no barriers with regard to vocation, gender, race, ethnicity or religion. About 80 per cent of the students are employed and pursue the courses as a continuing education. The OUSL's network of 28 study centres throughout the country provides a wide array of student support services. The student-centred study system is designed to support a distance learner through multiple modes including self-study, print and audio visual (AV) materials, contact sessions, e-mail and the Internet.

The four faculties of OUSL - Education, Engineering Technology, Humanities and Social

Sciences and Natural Sciences, provide 42 study programs, ranging from Foundation and Certificate Levels, through Bachelors and Post Graduate Diplomas to Masters and PhD levels. The Faculty of Education offers teacher education programs at different levels.

Objective of the Practice

Considering the need to enhance the professional development of teacher educators, the Faculty of Education at the OUSL introduced a unique, practitioner-oriented program, viz., Master of Arts in Teacher Education-International (MATE-I) Program. This Program is offered to practicing teacher educators in the field, entirely through distance mode.

The goal of MATE-I Program is to develop among teacher educators, competencies and practices in the areas of teaching and learning, use of educational technologies, design, development, and evaluation of curricula, management and leadership, research and evaluation and teaching as a profession. It aims at enhancing quality in teacher education, through the making of a reflective practitioner.

Need Addressed and the Context

Though teacher education is an area of great significance in any country, generally, priority is given for professional development of teachers, over professional development of teacher educators. In Sri Lanka too, this aspect has been somewhat neglected and a need for professional development programs for teacher educators has been recognized (National Education Commission, 1995). Addressing this unmet demand, a professional development program especially designed for teacher educators in the country, the Master of Arts in Teacher Education (MATE) program, was launched by the Faculty of Education at the OUSL in the year 2000.

KA I - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and is compatible with the regional, national and global expectations.

Later, recognizing the need to improve the quality of the program, and to align it with the requirements of a prospective overseas clientele of teacher educators, the existing MATE program was substantially revised and transformed into a unique practitioner-oriented program, with the assistance of the Commonwealth of Learning (COL). The transformation of the Program continued throughout 2003-04, and MATE – International (MATE-I) Program, was launched in February 2005, initially with a pilot group of local teacher educators as the first cohort of students.

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.

Description of the Practice

The MATE-I is a novel program that is built upon the vast experience that the OUSL has in teacher education since its inception. Collaboration and networking have been the key features as seen at different stages of MATE-I program including program design, pedagogical design and program implementation. The initial partnership between two major institutions dedicated to ODL, the Commonwealth of Learning (COL) and the Open University of Sri Lanka (OUSL), in developing the MATE-I program, gradually grew into collaboration among a group of individuals from different parts of the world, who shared their expertise and experiences, to develop a quality program for teacher educators.

MATE-I program consists of six compulsory courses and a learning portfolio project. The courses are focused on the various roles of teacher educators rather than specific subject matter content. This approach includes established best practices in teaching and learning such as learning by doing, problem-solving, situated learning, scaffolding of learning and authentic assessment tasks, shifting away from the traditional content-driven approaches in teaching and learning. It also supports collaborative learning and critical reflection while students are supported with various resources including information and communication technologies (ICTs).

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a schoolteacher.

The most significant feature of MATE-I program is its pedagogical design - Scenario-Based Learning (SBL), which is based on fundamental principles of meaningful learning. In this approach, authentic learning scenarios are used to situate the learners, and these situations orchestrate the learning and assessment activities in each course as challenging tasks to be performed by them. The assured suitability of this approach to practice-based disciplines, leads to the expectation that the graduates of the program would adopt it in their own teaching activities.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

KA II - QA 9 - QI 28 :

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

Completion of a learning portfolio promotes reflective learning of students. Through compiling and reflecting upon the work they complete in achieving learning outcomes of each course,

each learner will critically reflect on his/her individual work as a teacher educator, which will result in developing a culture of critical reflection among the group.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

The first cohort of students in the pilot program consisted of Sri Lankan teacher educators from different institutions throughout the country. Measures are currently being taken to offer the program offshore, using ODL techniques. An ongoing monitoring and evaluation procedure is also being implemented, concurrently with the program.

The Resources

The learning environment for the program consists of offline as well as online resources. The major forms of learner support comprise print materials and multimedia resources including a *Study Guide* and a *Resource Pack*. In developing these materials, a course team approach is adopted which involves sharing of expertise of academics from different institutions, with continuous facilitation by international experts, financially supported by the COL.

KA IV - QA 12 - QI 35:

The physical infrastructure of the institute is suitable and adequate for effectively implementing the programme.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource center necessary for implementing the programme are available and utilized on a regular basis.

A limited number of interactive face-to-face contact sessions with the local tutors provide opportunities for closer interaction. In addition, local study center support with library, computer and internet facilities, electronic media such as web site and CD ROMs, on-line provision for tutor support and assignment submission, and an online discussion forum via a learning management system (LMS) to facilitate student interactions are also provided. Continuous assessment (CA) leads to the final assessment in a course. In each course there are a number of compulsory assignments, which are continuously evaluated by two examiners, and these CA marks contribute to the final evaluation of a student.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

The Impact/Outcome

Two factors significantly contributed to the programme effectiveness. One, the collaboration and networking among institutions and individuals in all aspects of the programme; and two, the course team approach which pooled efforts of professional experts, local as well as

international, for evolving of effective and innovative courses of study.

The unique pedagogical design, SBL, enabled learners to increasingly engage in collaborative, reflective and self-regulated learning. The learners faced challenging tasks as they proceeded with the study program. Especially for the isolated learners in the distance mode where frequent student interaction is limited, facilitation of collaboration via carefully designed learning activities, and online support, was very useful. As the delivery of the program takes place in the form of multi-mode interactions/discussions rather than one-way communication, the experiences they gain lead not only to mastering the concept of SBL, but also to learning as a group.

KA II - QA 6 - QI 15:

The instructional processes are geared to develop of reflective thinking and practice both individually and in groups.

Despite the effectiveness of an innovative pedagogical design in the MATE-I programme, there are several concerns about how it might work in varied but specific educational settings. For instance, the expected changes in the roles of teachers and students may be difficult with both parties, who are more comfortable with conventional teacher-centered methods. The workload of SBL with continuous learning and assessment activities and online methods poses challenges to students, especially for the distance learners who are mature students, with work and family responsibilities. Facilitating interactive sessions, face-to-face, as well as online, are demanding tasks for the teachers. These and several related issues suggest that there is a possibility that it might not be received with enthusiasm by some at least in the early stages of its implementation.

Requirements for Adoption and Adaptation

The MATE-I Programme is a unique professional development programme for practicing teacher educators. Development of global partnerships is a key feature observed in this programme. The collaborative learning design, SBL, adopted in the programme has had significant implications on enhancing quality in professional development of teacher educators. Quality professional development of teacher educators is critical to ensuring quality teacher performance, and it should be an on-going process of gaining new knowledge, refining skills, adopting new methods and technologies and improving their decision making competence. Innovative approaches such as collaborative, reflective practices and use of ODL and ICTs are essential in developing quality professional development programs for educators.

Quality Enhancement through Innovative Practice

T. K. S. Lakshmi

Ajay Surana

Editors' Note

Innovation proneness in an institutional ethos encourages teachers to try and develop breakthroughs in academic as well as other aspects of functioning. In such a context strong nuances such as resource scarcity will be handled with feasible alternatives. The case study reports two practices evolved by the Department of Education, Banasthali Vidyapith- one, pertaining to a breakthrough in evolving a totally learner centric programme and the other of evolving a course for technology integration in educationally field relevant way. All the six Key Areas (KAs), are covered in both the practices, namely, KA I Curriculum Design and Planning, KA II Curriculum Transaction and Evaluation, KA III Research, Development and Extension, KA IV Infrastructure and Learning Resources, KA V Student Support and Progression and KA VI Organisation and Management.

The Institution

The Banasthali Vidyapith is a unique institution dedicated for education of girls' located on the outskirts of the Indian desert in Rajasthan. It started as a school way back in 1935 and expanded into an institute for higher learning over the years. In 1983 it attained the status of a "University". Its distinguishing features are:

- ◆ An autonomous educational endeavor from pre-school to doctoral studies only for girls
- ◆ Fully residential for students and staff at all levels
- ◆ National intake
- ◆ Enrolment in one main stream programme and opening for several parallel programmes such as music, dance, technical training, vedic studies, martial arts, glider flying, horse riding, participation in the Banasthali Radio programmes, and so on.
- ◆ Indian and secular ambience on campus
- ◆ Community living irrespective of cadres
- ◆ Regularity in academic calendar, examinations and declaration of results
- ◆ Autonomy to component units and administrative support for innovative practices

These features are reflected in the educational programmes of the Vidyapith, which have been evolved with the explicit objective of preparing empowered, self sufficient women. The education programme is called ‘Panchmukhi Shiksha’ (Five fold Education), viz., physical, intellectual, practical, aesthetic and moral dimensions of student development.

The Department of Education has been one of the Vidyapith’s founding units since 1962. The Department offers Bachelor of Education (B.Ed), Master of Education (M.Ed.) as well as doctoral degree (Ph.D.) programmes in education. The admissions are based on an entrance test conducted by the Vidyapith ensuring adherence to the reservation policy for the weaker sections. This case study showcases the institutional concern and the administrative willingness to change for the better.

KA V - QA 19 - Q1 53:

Institution adheres to the defined admission criteria and the admission procedures ensure a fair and transparent admission process.

About the Practices

The Department of Education of the Banasthali Vidyapith has the distinction of venturing to try out a learner centric curricular programme of teacher education, which the students named “Anweshana” in cognizance of its main feature of self-exploration which is detailed under ‘Practice A’. Introducing a course for promoting computer based learning has become a necessary component of teacher education at present. The Vidyapith was among the earliest institutions to adopt the Computer Assisted Learning and Teaching (CALT) programme, which is yet another indication of the forward looking tendency of the institution. Over the past few years, there has been continuous effort by the faculty to meaningfully integrate the course into the B.Ed. curriculum. ‘Practice B’ gives details on how the institutional effort to provide for meaningful incorporation of CALT into both pedagogic and other teacher relevant functions had improved the quality of the B.Ed. programme.

Practice A

The ANWESHANA Experience – TE with a Difference

T.K.S. Lakshmi

Editors' Note

The case study describes a unique attempt at a totally learner centered, learner evolved curriculum for pre-service teacher education programme. It highlights the fact that visualization and implementation of a new vision represents all Key Areas (KAs) of quality dimension in an institution though the Quality Aspects (QAs) and Quality Indicators (QIs) may need to be redefined to apply to a learner centric programme. It covers KA I Curriculum Design and Planning – QA I Institutional Vision (QIs 3&4), QA 3 Curriculum Content (QIs 5,7,8 & 9) QA 4 - Curriculum Revision (QIs 10 & 11), KA II Curriculum Transaction and Evaluation - QA 5 Induction/Orientation (QI 12) QA 6 Transaction of Theory (QIs 14,15 &16), QA 7 Transaction of Practical Experiences (QIs 18 &19), QA 8 Assessment and Evaluation (QIs 22&23), QA 9 Teacher and Teaching (QIs 26 & 27), KA III Research, Development and Extension - QA 10 Research and Development (QIs 29&30), KA IV Infrastructure and Learning Resources - QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resource (QI 39), KA V Student Support and Progression - QA 17 Diagnosis and Remedial Programme (QI 48), QA 19 Admission Procedure (QI 53) and KA VI Organisation and Management - QA 21 Internal Coordination and Management (QIs 58&61), QA 22 Academic Calendar(QI 63).

Objective of the Practice

The main aim of the Practice was to try out the possibility and feasibility of a totally learner evolved TE curriculum which provides for individualized learning routes, personalized goal priorities, coordinated learning efforts as well as continuous self appraisal and peer feedback. Evolving such a process would provide better insights into not only the substantive enrichment of TEP but also the 'actual' potential of the prescribed time-resource inputs.

KA I - QA 2 - QI 3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

Need Addressed and the Context

There was a persistent feeling among the staff about the inadequacy of the existing TE curricular inputs. Some of the unattended needs perceived by them were:

- ◆ Differential inputs to cater to individual needs
- ◆ Appropriate interlinking of concepts across various dimensions, avoiding redundancy
- ◆ Learner autonomy and self development
- ◆ Field familiarity and conceptual clarity
- ◆ Teacher educators' familiarity with learner centric ways

KA III - QA 10 - QI 29:

Teachers explore better ways of functioning and build upon their experiences systematically.

During the academic session of 1993-94, the Department redesigned its curricular framework for both the bachelor and masters' programmes. A couple of the teacher educators took the initiative to try out a learner centric way of preparing teachers in their subjects. This required an entirely different treatment for the selected students, with no specification of course outlines by teacher educators. The students needed a different orientation about how they would carry on their study. More significantly, teacher educators needed orientation in learner centric methodology. Approval of the various academic decision making bodies within the Vidyapith had to be procured for adopting an entirely non structured programme which had no previous record anywhere, for comparison. The programme needed official sanction from the National Council of Teacher Education (NCTE). All these were obtained and the Anweshana Programme was launched in 1997-98. The institution provided for adequate time for theory and practice and ascertained adequate provision for institution level practice, school based practice and whole school practice according to the learning needs discerned by learners.

KA II - QA 5 - QI 12:

Comprehensive orientation is given to freshers about the institution and the programme.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

KA II - QA 3 - QI 7:

The operational curriculum content is designed in such a way that it has adequate inputs for development of attributes expected in a school teacher.

Description of the Practice

The three main interventions in the "Anweshana" experience were:

1. *Initiation and Sensitisation* pertaining to motivating student teachers to recognise, accept one's own learning needs and evolve the learning sequences on their own. 'Initiation' involved making decisions as to how to go about independently and/or in groups; for instance, gaming and ice breaking exercises were used in the initial

KA II - QA 6 - QI 15:

The instructional processes are geared to develop reflective thinking and practice both individually and in groups.

stages. ‘Sensitisation’ referred to the several activities which helped the student teachers to perceive their strengths and weaknesses, accept others, to discern significance of teacher roles, demands on teachers in the school and field conditions. Such inputs were provided throughout the programme on appropriate occasions. These two were very essential in inducting student teachers; who have been accustomed to teacher centric ways and are weak in academic decision-making.

KA II- QA 7- QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

2. *Substantive Inputting*: this essentially pertained to conceptual and practical understanding sought by student teachers. It included discernment of ideas and concepts needed to understand and carry out teacher roles; acquiring adequate understanding of other conceptual knowledge in the form of technical, theoretical know-how; and learning to use them in practice. This component included, in fact, all the actual learning experiences other than sensitization and appraisal, and thus, represented the ‘process’ dimension of the TEP. In actual terms, the Group identified the most relevant understandings and competencies for all members and proceeded to seeking them out through ways decided by the Group. Each element learnt was in the form of ‘problems’ perceived by them for becoming effective teachers. The process as it emerged can be described as follows:

KA II - QA 6 - QI 14:

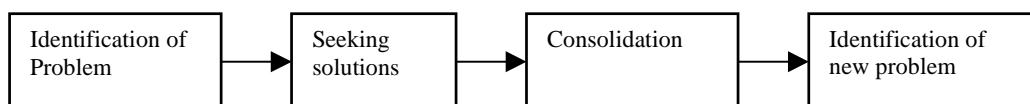
The various courses of theoretical study are provided in order to develop an understanding and appreciation of teacher in a holistic educational perspective through dynamic learning experiences.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.



Identification of problem pertained to varied activities, most of which were group based. Initially, questions generated were based on personal experiences as students and their perceived learning needs as student teachers. When sets of relevant questions were arrived at, the Group set about prioritizing them. During the initial days the questions

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

identified were conceptually quite vague and personalized. As the Group proceeded further, the questions were redefined and more pertinent ones were raised, with better clarity, conceptual rigour and focus.

Seeking Solutions pertained to all efforts by the Group to identify possible ways of finding answers to the problem on hand. In this process several sources were identified including those on how to tap them. A wide variety of sources were tapped including sharing personal experiences, observation of field situations in and out of classrooms, library work, practicing school teachers and principals, guidance of teacher educators, use of audio and audio visual learning triggers, self instructional material, group discussions, peer group and the like. As the student teachers had no previous knowledge of pedagogy, these activities were more flexible, spontaneously evolved according to the nature of ‘sources’ identified. Of course, during the course of study the technical nomenclature for the several activities were identified. They experienced intensive training in pedagogy through simulation and actual field practice. The Group had actual hands on experience in the use of ICT in teaching, operating several gadgets and using them for varied teacher roles and also various testing mechanisms including psychological tests. Most of the pedagogic modalities they studied were attempted to be practiced beside the usual lectures, discussions and practical activities. Some of them were, learn to develop self instructional material, construct and administer achievement tests, preparation of improvised learning resources, effective use of library, and so on. In short, the range of activities adopted by the student teachers included individualized, group interactive as well as teacher dependent ones. As they organized several activities for school children such as quiz, crafts training, exhibitions, open group counseling sessions, and feedback sessions, they had ample inputs for developing organisational competencies.

KA II - QA 6 - QI 15:

The instructional processes are geared to develop reflective thinking and practice both individually and in groups.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilized on a regular basis.

KA I - QA 3 - QI 9:

The operational curriculum content has ample scope for varied learning situations both at the institution as well as at the school/field levels.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also their other roles and functions.

Consolidation included efforts made by the Group to tie up the outcomes of their probing with the initial questions they had, and list out any possible new questions that arose. At this

stage, the mode was essentially discussions in which teacher educators also participated and student teachers listed out the main ideas learned in respect of technical knowledge as well as personal development,

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

followed by preparing write-ups about these, appraisal of the procedure adopted and altering the concept map. Each sequence of activities for seeking solution to a problem was called a 'learning episode'. Exemplar learning episodes are provided at the end. These were continually

carried out in varied ways in order to enable student teachers find out WHAT and HOW MUCH they learnt as well as to perceive changes in SELF. Regular feedback sessions were held at the end of each learning activity in which all members and the teacher educators gave their observations about both the conceptual and

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

the personal aspects. Personal files were maintained by student teachers in which they recorded their daily observations and self-appraisal. Besides, periodic assessment sessions on conceptual understanding and practical applications, assessments were also held in

KA II - QA 8 - QI 22:

Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.

the form of 'self checks' by student teachers and teacher provided tests. Thus perceptions about self-development and the overall process itself were recorded periodically and used for improvement.

Arriving at a Gestalt : The predominant feature of the entire process was the need based decision and adoption of different activities. As there was no prior structure and pre decision about the nature and number of inputs to be provided, the need to consolidate student learning became more significant for two reasons. One, students needed to gain a comprehensive view of what they have learnt; this would provide clarity and confidence to them. Two, it helps in ensuring the adequacy and relevance of such a flexible and evolving system of curricular transaction; it will also clarify the learning contours the student teachers have gained on which they could be assessed, which is essential for final certification purposes. This was done as follows.

Periodically, the Group took stock of the actual learning by preparing a 'concept map' of all the concepts they covered which was modified as and when subsequent learning made it necessary. Towards the end of the term,

KA III - QA 10- QI 29:

Teachers explore better ways of functioning and build upon their experiences systematically.

a comprehensive concept mapping was resorted to. This exercise enabled rendering the entire conceptual spread covered into meaningful ‘concept-clusters’. Several concept clusters with possible relatedness were put together as a ‘course’. During the first year of this programme, six courses were evolved by the Group. This entire process of discerning related concepts, collating them into particular focus as courses of study and conceptually linking school based practice and their hands on efforts enabled the Group to experience actual curriculum development.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

The final assessment, as per the stipulations had to be made according to the ‘external’ assessment procedure adopted for other academic programmes in the Vidyapith. The teacher educators rendered the concept clusters arrived at by the Group into officially acceptable form, which was sent to the external examiners as a basis for assessment.

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

The Resources

The “Anweshana” programme has the distinction of being the only such totally learner evolved teacher education programme. Effective implementation of this requires willing and well oriented teacher educators. The role of teacher educators has to be one which supports, guides, supplements, organizes, participates and facilitates learning instead of being ‘method masters’ or the ‘source of learning experiences’. They need to be resourceful in, mobilizing learning supports as required; if they are not available create them, liaison with others, be competent to adopt flexible modalities and sensitivity in perceiving learner needs, a commitment not to interfere or to prescribe in the learning process, beyond mere understanding and expertise in one’s own subject specialization. Teacher educators need to be active participants in the entire process without dominating, and being non-directive.

KA II - QA 9 - QI 27:

Teachers take initiatives to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualise and carry out curriculum transactions according to the nature of the enrolled student group.

Other resources are essentially in the form of organizational support to provide for flexibility in carrying out the daily activities and for enabling use of all available learning resources. On a

residential campus such as the Vidyapith, field based activities of school observation, interaction and practice require additional arrangements of transport, hostel contingencies and official permission to permit student teachers to go out of campus. Access to a variety of schools is required for field exposure to student teachers. The whole practice was based on the premise that it can work effectively within the given time-resource framework. Besides these, access to a well equipped library, mechanical gadgets including computer lab, and access to Internet facility are required.

KA VI - QA 21 - QI 58

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.

The Impact/Outcome

A learner centric approach has emerged as a feasible alternative in pre-service teacher education. The process leads to learning in a more personalized manner, in diverse ways, with great conceptual clarity and comprehensiveness. It helps in enhancing integration of theoretical understanding and practice as also self-development in student teachers. It makes teacher education programme dynamic, field sensitive, conceptually deep and the teacher educators more accountable and satisfied. A spill out of this programme has been that the other teacher education group in the department has accommodated several participative inputs. The adoption of this programme requires a willing effort from teacher educators to reorient themselves into learner centric ways of curricular transactions. Several teacher educators find it difficult to adopt these ways. Initial reluctance both individually and institutionally seems to be a major obstacle. The programme has continued till date in the name of B.Ed.(Enriched) with increased enrolments since its initiation more than a decade ago.

KA I - QA 2 - QI 4:

It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.

KA IV - QA13 - QI 37

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilized on a regular basis.

Requirements for Adoption and Adaptation

Any TEI can easily adopt this programme as it is evolving according to situations. Main requirement for adoption is the preparedness within the institution through concerted effort at reorienting one's stance on learning, learner autonomy, teacher facilitation and organizational flexibility. Basic learning resources that are stipulated by the NCTE are adequate for implementing such a programme.

Practice B

The Computer Assisted Learning and Teaching (CALT) Experience

Ajay Surana

Editors' Note

The case study reported reveals the way a resource scarce department can evolve a meaningful programme for a course which essentially is gadget based, mainly through administrative support, academic will of the faculty and inter-departmental coordination. The KAs and QIs covered are KA I Curriculum Design and Planning – QA 4 Curriculum Revision (QIs 10 & 11), KA II Curriculum Transaction and Evaluation - QA 6 Transaction of Theory(QI, 14), QA 9 Teacher and Teaching (QIs 26 & 27), KA III Research, Development and Extension - QA 10 Research and Development (QIs 29, 30 & 32), KA IV Infrastructure and Learning Resources - QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resource (QI 39), KA V Student Support and Progression - QA 17 Diagnosis and Remedial Programme (QI 48), and KA VI Organisation and Management - QA-21 Internal Coordination and Management (QI 61), QA 22 Academic Calendar(QI 63).

Objective of the Practice

The main purpose of the practice was to enhance ICT integration into the B.Ed. curriculum. More specifically, the attempt was

- ♦ to dovetail the ICT component relevantly into the practice of instructional designing and its transactions;
- ♦ to shift the focus of curriculum from computer literacy to applying ICT in teacher's tasks;
- ♦ to evolve internal processes in the wake of shortfall of infrastructure within the department using the on campus resources, particularly from the Department of Computer Science and Electronics.

Need addressed and the Context

The Banasthali Vidyapith was among the few institutions in the country identified as a centre for training teacher educators for Computer Assisted Learning and Teaching (CALT) by the Government of India under the Technology Development in Indian Languages (TDIL) programme of the Department of Science and Technology (DST). All the staff members of

the Department of Education, Banasthali Vidyapith were part of the fifty teacher educators trained in the first batch. As a sequel to this, the department was among the earliest institutions to introduce CALT as a component of its curriculum both at the B.Ed. and M.Ed. levels since 1990. At the B.Ed. level, CALT was included as an ‘additional specialisation’ (optional of 100 marks). In M.Ed. CALT was included as an area of specialization with two courses of 100 marks each. This course was introduced along with traditional educational technology courses at both levels. The CALT course has been an interdepartmental collaborative programme of Departments of Education and Computer Science of Banasthali Vidyapith.

KA II - QA 9 - QI 27:

Teachers take initiatives to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualise and carry out curriculum transactions according to the nature of the student group enrolled.

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

Mastering ICT skills and utilizing ICT towards creating an improved teaching and learning environment is of decided importance to teachers in creating a new learning culture. It is no longer possible to think of education without ICT. One can go even further by pointing out that education is increasingly being defined by ICT. The ICT has the potential to replace all the previous audio-visual aids like radio, T.V., OHP, slide projectors etc. The educational institution cannot afford to ignore the importance of ICT in the whole educational process. In order to respond to this emerging trend it was felt necessary to revamp the curricular inputs for B.Ed. so as to accommodate ICT appropriately.

The provision of CALT as an optional course did not equip all students with a competence so essential in schools. In addition, it was found that students were at different levels of familiarity with the use of computers. This added to the heterogeneity and it became necessary to bring everyone on par in respect of their preparedness to be responsive in the changing context of school education.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

The CALT course as an optional was dealt with by a teacher from the Computer Science Department initially. Despite elaborate discussions teacher educators found that students were unable to link the course with the rest of the B.Ed. programme. This was mainly due to the fact that a teacher of

KA III - QA 10 - QI 29:

Teachers explore better ways of functioning and build upon their experiences systematically.

computer science is unable to understand the pedagogical requirements of a school teacher; while the teacher educators who were adept at this could not relate to use of computers, though they felt its need. Coincidentally, the Intel Teach programme with which the Vidyapith signed an MOU, provided an updation to all teacher educators in the use of ICT in teaching learning especially using the learning modules they had developed.

KA IV- QA 14 - QI 39:

Teachers seek to gain professional development through participating in in-house discussions and professional fora.

No relevant revisions in curriculum are possible without support of colleagues and the administrator in the institution. Such a motivational leadership and support was available which created an eagerness to adopt new ideas and techniques, and muster courage to tryout innovations. All the above led to the practice in its current form.

KA VI - QA 21 - QI 60:

The institutional leadership adopts professional management approach.

Description of the Practice

In 2002-03 CALT was made a compulsory additional subject at B.Ed. level. Its curriculum was reframed accordingly. Instead of mere theoretical orientation more practice based exercises and activities were included. Revision of course content was in terms of shift from teaching computer literacy to its application in education. Teacher educators were also involved along with computer science teacher in the curriculum transaction of CALT. Knowledge and application of use of simple softwares like word processing, data processing, presentation, web browsing, using Hindi fonts were included. Each of these was related with various functions and tasks of a school teacher. Applications like formatting and printing notices, maintaining records of school, development of question papers, result sheets etc. were included. In this phase of reforms most forces of change was due to the internal dynamics within the institution and yet limited to a single computer related course.

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.

KA I - QA 4 - QI 11:

The institution undertakes curriculum revision on a regular basis in the form of continual deliberations on its substance, adequacy and updatedness.

KA II - QA 6 - QI 14:

The various courses of theoretical study are provided in order to develop an understanding and appreciation of teacher in a holistic educational perspective through dynamic learning experiences.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

Ten modules of INTEL Binder are accommodated in the revised CALT course, which are pertinent and relevant to the course. These additions have enhanced the instructional quality. Application of computer and information technology is being aided in several core courses like Educational Evaluation, Educational Administration etc. and all the teaching subjects as practicum and projects.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

Computer lab facilities have increased. All the Hindi medium students are facilitated with convenient Hindi fonts and soft and hard materials. Many of the teachers prepare support material with help of computers and use them during classroom practice teaching. Regular records of student participation and learning are maintained. Assessment is continuous and tests are conducted by the concerned teachers. Some relevant interesting projects have been carried out by students.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilised on a regular basis.

The Impact/Outcome

Transacting the CALT programme has been a satisfying experience. Teacher educators have become more perceptive to the use of technology and more confidently use it in their work. They have become more aware of the needed alterations in their teaching, learning designs efficiently with the adoption of technology. There is a greater readiness to use digital mode in the various teacher roles and also to render the technology to suit resource scarce situations. The practice has made it necessary to continuously introduce revisions according to the changing student intake and enhance the level of technology adoption in teacher education.

Requirements for Adoption and Adaptation

The success of implementing ICT in an institute context depends on a number of factors. Many issues have to be taken into account during this process. Not only factors that are related to internal processes at the institute itself, but also factors from outside the institution and factors related to educational and technological developments can play an important role in both the decision to start implementing ICT in education and in the actual implementation. In addition, infrastructure issues and questions related to the support during and after the process of implementing ICT are important to consider.

The course on CALT can be made meaningful and educationally relevant through technology integration with a careful organisation, coordinated functioning and professional support across departments. However, it is essential that teacher educators identify the components of their programme that lend themselves for technology integration. Teacher educators need to be capable of facilitating students in not only discerning where and how computer and ICT use can help them but also encourage them to actually utilize the same.

A well designed operational curriculum needs to be evolved by the institute. An independent computer lab will be of great help. In the absence of it, the institution must provide students with adequate access and time for computer based interaction. The most important point, 'Do not regard implementation as something monolithic but rather give users room for so-called segmentation, and approach them as implementers'. This makes users aware of their own responsibilities and freedom to deal with the new situation. In doing so, they make a distinction between the central availability of an ICT-solution (from the point of view of economies of scale) and its implementation in a specific context (with due regard to professional autonomy). The more an ICT-solution influences work processes, the more important it is that end-users feel involved.

Technology can be used extensively to help the learner make sense of the tasks assigned and learn what is required. However there is usually a need for multiple units of the technology which all the learners need to use at their own pace. Work sheets, models, interactive technology etc., all need to be made available to learners on an individual basis or in small groups. This method attempts to strike a balance between the teacher, as the main source of knowledge and the learner, as an active seeker of knowledge.

From the experiences it can be concluded that the successful implementation of ICT depends on a number of factors, most of them often intangible, and that the role of an expert group in supporting the whole process (from initiation to implementation and institutionalisation) of using ICT in education can be different in each situation, even in the same institutional context.

Teacher Capacity Building through Distance Education in a Developing Nation

Johan Hendrikz

Editors' Note

This case study illustrates the application of some Quality Indicators (QIs) in the establishment and management of a distance education initiative to upgrade qualifications of teachers at a contact institution. Under the Key Area (KAs) Student support and Progression, two Quality Aspects (QAs) - QA 15 System Efficiency (QI 41) and QA 16 Feedback Mechanism (QI 45) are reflected and under KA VI Organisation and Management, the case study covers four Quality Aspects(QAs) QA 21, Internal Coordination and Management (QIs 57 ,58,59 & 60), QA 22 Academic Calendar (QI 62), QA 24 Financial Governance (QIs 69,70 & 71) and QA 25 Academic Quality and Management (QIs 72 & 74).

The Institution

The University of Pretoria (UP) was established in 1908 and is the largest and most comprehensive residential and research University in South Africa with more than 51,000 students. Its Faculty of Education is the largest face-to-face faculty of its kind in South Africa.

The Unit for Distance Education was established in the Faculty of Education in 2002. This Unit offers two undergraduate and one postgraduate programme for teachers who want to upgrade their qualifications. In 2006 more than 13,000 teachers were enrolled in these programmes.

Given the realities of Africa and the lack of accessibility to the Internet, these programmes are predominantly delivered through print based learning materials with face-to-face contact sessions. The programmes are specifically developed to suit the realities of teachers in rural communities in Africa. Seventeen academic staff of the Faculty of Education and approximately one hundred and seventy tutors are involved in the academic component of the programme.

Objective of the Practice

The Apartheid system in South Africa provided poor training for prospective black teachers

in South Africa, which resulted in thousands of poorly or under qualified teachers. It is not possible to address this challenge through the conventional contact teaching mode. Although the UP is a face-to-face institution and the Faculty of Education presents its programmes through face-to-face mode, the Faculty decided to play a constructive role in redressing the inequities of the past by establishing a distance education initiative in 2002, with the aim of upgrading teacher education in Africa in general and specifically in South Africa. The objective was to establish a world class distance education initiative at a face-to-face university that caters to the challenges of a developing nation.

Need Addressed and the Context

In 2001, the Executive of the University of Pretoria nominated a committee to investigate the potential for a distance education initiative in the Faculty of Education. The Committee undertook wide-ranging research and developed a business plan with ten-year prediction capability.

KA VI - QA 21 - QI 57:

The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

It was decided that only three programmes for the upgrading of teacher qualifications would be offered. There were two reasons for selecting these programmes. The University had the capacity to develop the programmes and the investigation revealed a need in the market that made the numbers economically viable. The Executive approved the plan in March 2002 and the Unit for Distance Education was established in the Faculty of Education on 1st April 2002. As the Unit's work began, the business plan was used to determine whether all the necessary activities were being undertaken and what the possible costs would be.

KA VI - QA 25 - QI 74:

The institution uses a management information system for running the programme.

KA VI - QA 24 - QI 71:

The income and expenditure of the institution are subjected to regular internal and external audit.

Description of the Practice

The very first step in establishing the Unit for Distance Education was to determine the academic model so as to identify the business processes and to indicate where these processes were to take place. In the context of the case study, the academic model refers to the conceptual framework within which the programmes will be presented. The model specifies such things as how the academic cycle will work, the place and role of assignments,

KA VI - QA 22 - QI 62:

The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.

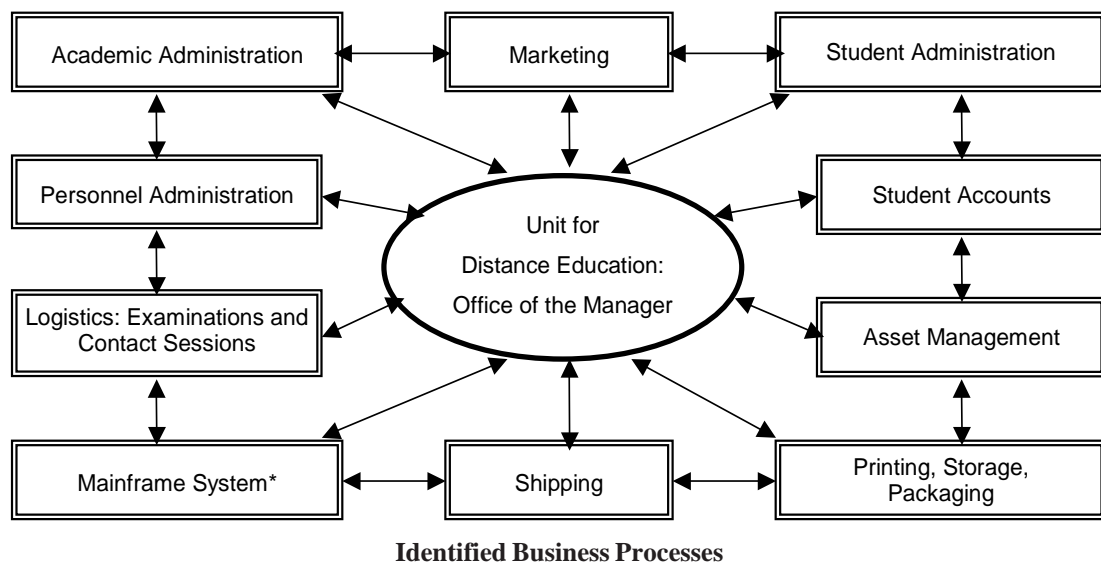
the role of contact sessions and when examinations will take place. After establishing the academic model, an administrative model was built to support the academic model and not vice versa.

There was a specific decision that the Unit for Distance Education would not have an autonomous infrastructure, resources and processes, but would be integrated as far as possible with the existing infrastructure, systems and processes of the UP. There were two reasons for this decision. First, it was a decision that made financial sense. Why should costs be incurred to develop additional systems if the existing ones could easily be adapted? Second, a signal would be sent out that distance education is not just a ‘second-rate, secondary’ initiative, but forms an integral part of the core business of the University. The case study revealed that specific structures and systems had to be developed in view of the particular nature of distance education. However, this happened only after it was determined that the

KA VI - QA 21 - QI 58:
Functional mechanisms are evolved for ensuring optimisation of efficient use of available resources and regular monitoring of the activities at different levels.

existing systems and structures did not serve the best interests of distance education. In adopting this approach, the University therefore confirmed its commitment to distance education. A matrix management system was put in place. This means that particular business processes for distance education were placed within another established structure and that the staff involved fall under the line of authority of that structure, while the Unit for Distance Education exercises functional authority over the staff involved in each particular business process. The identified business processes is diagrammatically represented below.

KA VI - QA 21 - QI 60:
The institutional leadership adopts professional management approach.



After all the business processes had been identified, it was determined that it would be better to outsource some functions right from the start. It was decided, for economic and infrastructural reasons, that marketing and the logistical management of examinations and contact sessions would be outsourced. It was more economical for the University to employ existing specialist service providers with appropriate infrastructure than to create the necessary infrastructure and employ the experts needed. However, the University specifically required the providers to be able to conform to the quality criteria of the University. If this had not been possible, the University would not have followed that path and would have put the infrastructure in place itself.

The Resources

It would not have been possible to establish the Unit for Distance Education on a firm base if a comprehensive business plan containing expected income and expenditure for a projected period of ten years had not been developed beforehand. The projected income linked the expected number of students to class fees and took into account the future state subsidy. The expected expenditure projected staff, capital and operating costs. Operating costs were calculated in detail and included such costs as expected programme development costs, printing costs, shipment, student support, the cost of marking assignments and examination papers, and marketing. One of the greatest challenges was to reconcile the business plan with the real operating costs of the business. For example, the staff structure for administration had to be adjusted and the academic model ultimately decided upon had financial implications which could not be foreseen. After approximately two years the budget was in line with reality and financial projections could be made more accurately.

KA VI - QA 24 - QI 69:

The sources of income for the programme in particular and the institution in general are legitimate and known.

KA VI - QA 24 - QI 70:

There exists a transparency in financial management of the institution in terms of income and expenditure.

It was very difficult to reconcile with the development of the academic model with the projected expenditure. Small decisions such as expecting one additional assignment per module can have a significant impact on staff expenditure and infrastructure. This means that any adjustment has to be considered carefully because the financial implications of such decisions could have drastic long-term consequences.

The Impact/Outcome

The rationale and objectives for this programme were clearly set, right from the outset. It is therefore possible to measure the impact and outcomes of this programme against the set objectives as embodied in the business

KA VI - QA 25 - QI 72:

The institution has mechanisms to undertake internal academic audit of the programme.

plan. The University has within 4 years enrolled more than 13000 students. More than 3800 students have successfully completed their studies within the first four years. The University of Pretoria has made a visible impact on the need to upgrade teacher qualifications in South Africa. This would not have been possible without a holistic approach towards the establishment of this distance education initiative. Great care went in to applying quality criteria, not just in the development of the academic programme but also in the management and administration of the programme.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

Requirements for Adoption and Adaptation

In this case study, an overview of the challenges presented to a face-to-face university trying to establish a distance education initiative has been given. It is significant to recognise that if the institution as a whole, and the senior management in particular, are not committed to such an initiative, it probably would not be possible to establish or maintain the initiative. Secondly, the development of a business plan, and continual monitoring of activities against the business plan, was essential for the implementation of such an initiative. Thirdly, among the biggest challenges in establishing the initiative was to establish distance education as an integral mainstream activity of the University. Because the academics and administrative staff involved in the initiative initially saw distance education as a peripheral activity, the complexity and comprehensive nature of the attempt to establish the initiative was seriously underestimated. This led to the learning of expensive lessons. Fourthly, clear decisions had to be made about which of the existing university systems could be used or adapted for distance education, and which were so particular to distance education that they needed to be developed from scratch. The academic model has to drive the development of systems, rather than the other way round. Finally, streamlining all the business processes is dependent on a very good student data system. For effective continuous quality monitoring, it is important to be able to extract detailed academic and administrative information from the system. It took three years to put the systems and structures in place, but they need to be continually adjusted in the light of feedback and analysis of monitoring data.

Multi Aspect Effort at Quality Assurance

Vasudha Kamat

Editors' Note

The SNTD Women's University, India, has attempted a Master's degree programme for preparing teachers for the emerging demands of computer based instruction. The programme known as METCA has led to several new processes in the various functional aspects. Two such practices are reported here - one on ICT integration in teaching and the other on Internship in preparing Instructional Designers. While the Quality Indicators covered by each case is indicated under the respective practice, on the whole the case studies cover all the six Key Areas (KAs) i.e., KA I Curriculum Design and Planning, KA II Curriculum Transaction and Evaluation, KA III Research, Development and Extension, KA IV Infrastructure and Learning Resources, KA V Student Support and Progression and KA VI Organisation and Management.

The Institution

The SNTD Women's University, Mumbai, India, is a pioneering institute in the field of women's education established in 1916. It got statutory recognition in 1951. It offers various programs from Certificate to Doctoral degree, through its 11 faculties, 32 Post Graduate Departments, 15 Constituent Institutions and 160 Affiliated Colleges spread all over India. It has been accredited with 5 Star status by the National Assessment and Accreditation Council (NAAC), India.

The Department of Educational Technology (DET), a Post Graduate Department within the University was established in 1973 as Department of Audio-Visual Aids, mainly as a support service department. It provided services to all the departments as well as constituent institutions of the University, and also reached out to secondary schools in Mumbai in providing Audio-Visual education. It started offering Post Graduate Diploma in Educational Technology since 1993 and moved in the direction of transforming from a service department to become a Teaching and Research Department. Since 2001 the DET offers a full-fledged Master Degree program namely, Master in Educational Technology-Computer Applications (METCA), aiming at training teachers to teach through and design instruction for Online and Computer based learning.

Presently the Department has three full time Faculty (with Ph.D. qualification) and a Ph.D. scholar, and 4-5 visiting faculty for each semester (e.g. Semester I and III) to conduct sessions. Total number of students in first and second year is generally 40. The teacher student ratio is 1:10. Every year about 20-25 students are admitted in Semester-I, who are graduates in any discipline with at least 50 per cent marks. Students generally come from mixed socio-economic background. More than 75 per cent students have computer access at home and are well versed with the use of computers prior to admission into the course. By the end of first semester majority of them have computers with internet connection at home. All students get jobs before the end of semester-IV.

The DET as a part of the University is governed by the University Act. Head of the Department has full autonomy in planning and implementing the courses which are approved by the Board of Studies and the Academic Council of the University. The DET modifies its curriculum every year. The HOD prepares the annual budget and gets the sanction of the University.

About the Practices

As an institution with commitment for quality the DET discerned several practices which could contribute to the overall quality enhancement in its academic programmes. With the introduction of the METCA programme which is a novel one involving a total dependence on ICT, multiple processes became necessary in the form of curricular inputs. Main ones are:

- ◆ Preparing instructional designers for e-learning,
- ◆ ICT integration in training,
- ◆ Enhancing faculty-trainee participation through morning assembly and
- ◆ Situated Learning Design.

Each of these require a detailed organizational plan and coordinated implementation. The first two practices mentioned above are reported as case studies hereunder. The nature and mode of any practice is determined by the purpose and weightage it is given in the programme. The quality indicators need to be defined in the institutional as well as the practice context. This is attempted by the DET with appropriate redefinitions and application of relevant quality indicators.

Practice A

ICT Integration in Teaching

Editors' Note

This practice contends that competence to use ICT effectively in learning, instructional designing as well as in interacting with others can be developed through systematic learning inputs during teacher education programme. The practice covers KA I Curriculum Design and Planning –QA 3 Curriculum Content (QIs 5,6 & 8) , KA II Curriculum Transaction and Evaluation- QA 6 Transaction of Theory (QIs 15,16&17) ,QA 7 Transaction of Practical Experiences (QIs 18,19,20&21), QA 8 Assessment and Evaluation (QIs 23 & 25) , QA 9 Teacher and Teaching(QIs 27 & 28), KA III Research, Development and Extension- QA 10 Research and Development (QI 29 & 31), KA IV Infrastructure and Learning Resources-QA 12 Physical Infrastructure (QIs 35&36), QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resource (QI 38), KA V Student Support and Progression-QA 16 Feedback Mechanism (QIs 44 & 46), QA 17 Diagnosis and Remedial Programme (QI 47), QA 18 Guidance and Counseling (QIs 50,51&52), QA 19 Admission Procedure (QIs 53&54) and KA VI Organisation and Management- QA 25 Academic Quality and Management (QIs 73 &75).

Objective of the Practice

Main objective of the practice is to initiate the students of METCA programme into the use of ICT. The students will be required to use ICT to a great extent once they enter into the world of work as Instructional Designers. The ICT integration provides real life

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

experiences to the students who are future Instructional Designers, in developing confidence in the use of ICT for learning, designing instruction as well as interacting with 'significant others'.

Need Addressed and the Context

METCA is a professional program aiming at training students as Instructional Designers for developing CBT (Computer Based Training) or WBT (Web Based Training). During the first three semesters students learn theoretical aspects of Instructional Design. They also learn various application softwares (as many as 12-14). The Department of Educational Technology strongly believes in cognitive-constructivist approach to learning. Hence students are

encouraged to learn collaboratively. They learn the module in group, but make individual submissions for all the modules. This makes the need to share views, ideas and information very critical. The use of ICT provides an opportunity to achieve this.

Description of the Practice

Activities using ICT are generally planned in the beginning of the semester. As the SNDT Women's University does not have an LMS (Learning Management System of its own) free software and shareware available on Internet is used for interactions.

KA III - QA 10 - QI 31:

The institution has the practice of appraising its work through in-house research, institutionalizing innovative practices and undertaking formal sponsored research projects relevant in institutional and national contexts.

A. Community of practices

- ◆ Creating a Yahoo Group of new entrants (at the start of Semester I).
- ◆ Introducing oneself to the whole group on this Yahoo group.
- ◆ The learning material prepared by the teachers such as PowerPoint presentations, self learning material, related internet resources etc. are all uploaded on the yahoo group.
- ◆ Calendar of events in the particular semester is prepared on yahoo group and circulated.
- ◆ Photographs of events (including welcome party) are uploaded on yahoo group.
- ◆ Presentations using Chat rooms on Yahoo groups.
- ◆ Creating Blogs to interact with peers as well as with the rest of the world.
- ◆ Students use voice as well as camera for interaction.

KA II - QA 6 - QI 15:

The instructional processes are geared to develop reflective thinking and practice both individually and in groups.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

B. Use of Open Source Software like Moodle for creating online courses

The METCA students (semester III) are expected to create one short online course (they generally convert their 2 hour workshop into an online course). The Moodle – an Open Source LMS is used to get hands-on experience.

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

C. Videoconference

- ♦ Videoconference on various topics are planned for the students. Resource persons are generally from outside India.
- ♦ Videoconference is arranged in collaboration with the Reliance World. For this purpose the department develops linkages with the e-learning industries for using their resources at minimum or sometimes no cost.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands-on experiences including simulated practice.

D. Presentations using Interwise Presentation Software

Sessions are planned for the students using Interwise software which helps in data transfer and audio conference. Students also are asked multiple choice questions on the topic taught and answers are collated and presented to the students.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

E. Use of Phone and SMS

The first semester students are asked to submit their land line and mobile (if they have) numbers. A phone chain of all the students is created. All messages are passed to all the students through this chain in the shortest possible time. The teacher or the class representative only calls the first number in the chain and the message is passed. Students are also given messages through SMS.

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

F. Use of Computer and LCD Projector in the classroom by the teachers

The teachers use computer and LCD projector to present their PowerPoint or any other work. Generally the teachers use lecturates of 8-10 minutes (maximum). No one-way communication through a lecture of two hours is conducted.

KA II - QA 6 - QI 17:

The staff and students have access to technology and information retrieval on current and relevant issues.

G. Use of Computer and LCD Projector by the students for their group or individual presentations

Using computer and LCD projector for teaching in the classroom is a usual feature, though small group methods are preferred to lecture as a teaching method. Students are encouraged to make their group presentations using LCD projector.

KA II - QA 8 - QI 22:

Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.

H. Assignments requiring Use of Internet

Teachers are encouraged to plan assignments requiring use of Internet resources. Students generally have to submit about 15-17 assignments per paper.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure not only to instructional role of teachers but also their other roles and functions.

I. Use of Faculty-student Switch for Teaching

Teachers teaching software generally use this facility as they can show every step, every move or change they make in the step. Students who have already mastered the topic could be exempted from participating by switching their monitor to other mode.

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

Implementation : The DET has two classroom-cum-computer labs for two batches. Both the labs have about 17-18 computers each. They are in LAN and have broadband Internet connectivity. The lab also has a teacher-student switch which helps the teacher to teach from one computer and all the monitors show the teacher's monitor. Students learn software very effectively using this facility as they can watch very closely what the teacher is doing. The teacher also can exclude some student monitors where students have already mastered the procedures, which are taught. This technology has proved very useful in teaching softwares.

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

The academic schedule of the semester, as well as dates for assignment submissions are given to the students in the first week of the semester. Generally students of the first semester are invited to become members of

KA VI - QA 25 - QI 74:

The institution uses a management information system for running the programme.

the yahoo group specially created for them (e.g. metca2006). For this purpose they are required to create their yahoo mail address. Those who have not used Internet before are taught how to use Internet and are assisted by their peers in creating the yahoo mail account.

Once the students become members of the yahoo group the teacher starts uploading material for them. The teachers also motivate the students to upload their group work. This gives boost to the students as their work is shared with all. Many assignments are submitted through emails. This helps in giving feedback on the file itself.

KA V - QA 17 - QI 47:

The concern for the development of students is reflected in the student monitoring system in place.

As every batch of students is a member of one yahoo group they also become member of 'detsndt' yahoo group which is common for all the students of the department. This yahoo group creates a thread of love and belongingness among all the past and present students of the department. Past students share their views, information, photos, with all and they also give tips to the present batch of students.

KA VI - QA 25 - QI 73:

In the management of the programme the institution adopts a participatory approach involving all the employees.

KA V - QA 16 - QI 46:

There are evidences to show that feedback is used for development.

The Chat facility is generally used to teach the students when the faculty is outside Mumbai/India. Students also make their presentation using Chat facility. There had been situations when the HOD was teaching the students from the US, Malaysia, Canada etc. whenever she was out of Mumbai for longer durations. It is observed that students have appreciated this mode of learning.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

For each course of 4-credits every student is expected to submit about 15-17 assignments many of which require the use of Internet. For example, an assignment could be *"Find out one professional organization working in the area of Educational Technology/ Instructional Technology/ Instructional Design. Write mail to the office bearer and interact with them on any relevant issue."* This assignment will require the students to use Internet in the most productive way. All the students, after making individual presentation of their work,

KA I - QA 2 - QI 4:

It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.

upload the URL of the professional organization on the yahoo group for others to see leisurely. Evaluation of LMS, creating WebPages, contribution and life sketch of psychologists and such other assignments demand heavy and productive use of internet. Use of teaching methods such as *Web Quest* also requires students to use Internet resources very meaningfully.

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

Hence the students are encouraged to use

- ◆ Internet resources for collecting information
- ◆ Creating a learning community through Yahoo group
- ◆ Use open source software and LMS
- ◆ Use computer-LCD project or for presentations
- ◆ Use teacher-student switch for learning software
- ◆ Participate in synchronous meetings through Chat, Interwise software, Videoconference etc.

The Resources

Resources required for implementing this best practice could be described as below:

Physical Resources: In order to use the ICT in the face-to-face classroom situation, a computer lab with at least one computer for two students will be required.

Internet facility (preferably broadband connectivity) will

be additional requirement as the students are expected to use Internet resources. Since the students have computer and Internet connectivity at home, it becomes easier for them to participate in any activity conducted over the Internet and *World Wide Web*. But this is not an essential criterion. Students could use the college/university resources as well as cyber cafés. As stated above the department of educational technology has two computer laboratories with about 17-18 computers in each lab. All the computers in each lab are in LAN and have broadband connectivity.

KA IV - QA 12 - QI 35:

The physical infrastructure of the institute is suitable and adequate for effectively implementing the programme.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilised on a regular basis.

Financial Resources: Since the laboratory will have to be set up, it has financial implications. The college/department must invest in creating physical infrastructure like computers, furniture, Air-conditioning, Internet, LAN etc. All these require financial support.

KA IV - QA 12 - QI 36:

The institution has sufficient resources for regular upkeep of the physical infrastructure.

Human Resources: Basically the teachers/trainers are expected to initiate the use of ICT in their teaching/training. Hence the teachers must be confident in using ICT in teaching as well as enthusiastic about its use. For this teachers should have the required professional competencies and training.

KA II - QA 9 - QI 27:

Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualize and carry out curriculum transactions according to the nature of the enrolled student groups.

The Impact/Outcome

Since the introduction of the METCA programme in 2001-02 ICT integration for learning has been a regular feature. From the first batch of METCA course, it has been found that the students become more confident users of ICT. During the first batch, only 50 per cent students had computers at home. The subsequent years saw more number of students having their own computers. (Having computers at home or awareness about using computers was not the criteria for admission to METCA). Over a period, use of ICT has increased and it is used in variety of areas. Both teachers and students form a community of practices and the ICT integration has brought them closer. This closeness has become a characteristic feature of the METCA programme and no serious hurdles in integrating ICT into teaching have been faced.

Evaluation: Evaluation of this practice of integrating ICT in teaching/training is not done through any formal evaluation technique. Generally during the end-of-semester faculty meeting, the faculty shares her experiences with the use of various techniques and internet resources. They also share the problems encountered in using ICT. This type of sharing at regular intervals during the semester helps in strengthening the effective use of ICT.

Requirements for Adoption and Adaptation

Colleges or Departments of Education planning to integrate ICT in their teaching/training, would require to create basic physical infrastructure such as computer systems (preferably a Lab with all systems in LAN), LCD projector and Internet (preferably broadband). But having a state-of-the-art computer lab does not guarantee the use of it in teaching-learning

process. One has to properly plan its use. The teachers will have to be trained and motivated to use and experiment the use of ICT in their daily teaching sessions. The other key issues to be addressed are given below Key Area wise as visualized and/or adopted by the institute.

Key Area I: Curricular Design and Planning

- ◆ The goal of ICT integration is to develop confidence in students on using ICT for their day to day academic activities.
- ◆ Curriculum assignments should be planned so as to increase the use of ICT and a community of practices is created through the use of ICT in teaching.
- ◆ Variety of instructional and learning strategies as well as evaluation strategies are used in the process of integration of ICT ensuring considerable academic flexibility in the whole process of teaching-learning.

Key Area II: Curriculum Transaction and Evaluation

- ◆ ICT integration in teaching –learning process has provided many opportunities to the teachers in using innovative strategies for teaching and learning.
- ◆ Evaluation of student learning is made more effective through ICT use as e-portfolios are used as a major tool of evaluation. The employers are also happy to use e-portfolios for selecting the students both for internship and employment.

Key Area IV: Infrastructure and Learning Resources

- ◆ It is required that physical facilities are created for the ICT integration in day to day teaching.
- ◆ The various facilities such as Computers, Internet, LCD facilities will have to be provided.

Key Area V: Student Support and Progression

- ◆ The student gets feedback from the teachers as well as from their peers. The ICT use helps them to share their views
- ◆ The ICT Integration involves the students into the process of learning, encourages them to use various learning resources, communicate with people, provide feedback to peers etc., and thereby get ready for entry into their profession and work environment.

Practice B

Internship in Preparing Instructional Designers

Editors' Note

Preparing technically and educationally sound instructional designers for the emerging e-learning industry requires both conceptual understanding and field experience. Implementing such a preparatory programme is a matter of effective planning, coordination with the field and evolving relevant mechanisms for curricular transactions as well as learning assessment. The case study show cases the implementation of 'internship' through actual link up with e-learning industries in India and abroad. The quality criteria and related issues covered here are - KA I Curriculum Design and Planning, QA 3 Curriculum Content (QIs 7 & 9), KA II Curriculum Transaction and Evaluation- QA 7 Transaction of Practical Experiences (QIs 19,20&21) QA 8 Assessment and Evaluation (QIs 22,23,24 & 25), KA III Research, Development and Extension- QA 11 Community Engagement (QI 34) KA IV Infrastructure and Learning Resources- QA 14 Human Resource (QI 38), KA V Student Support and Progression- QA 16 Feedback Mechanism (QIs 45 & 46), and KA VI Organisation and Management- QA 21 Internal Coordination and Management (QI 62), QA 22 Academic Calendar(QI 63).

Objective of the Practice

The students of METCA course work as Project Trainees in the e-learning industries or educational organizations where online courses or CBT are developed. Main objective of the internship is to provide real life experiences to future instructional designers. The objective is to help students apply the theoretical experiences provided (knowledge base and skill set developed) during the first three semesters in the work setting. The details of these are given below.

Cooperating Organizations: At the end of semester III, e-learning industries interview the students and select them for internship. Students work in industry for 4 months (Feb to May). They work for 8 hours a day for 5 days a week. SNDT University has an MoU with the University of Regina (UOR), Regina, Canada. The Centre for Advance Technologies (CAT) of UOR invites 2 METCA students every year as Project trainees. These students work in UOR, Canada for 3 months. They are paid about 1500 CAN\$ per month as stipend (that takes care of their travel and lodging-boarding expenses). They work with professors (subject matter experts) as instructional designers for developing online courses.

KA I - QA 3 - QI 9:

The operational curriculum content has ample scope for varied learning situations both at the institution as well as at the school/field levels.

International Exposure through Internship:
Presently DET is negotiating with University of Technology, MARA, Malaysia and Wawasan University, Penang, Malaysia for Student internship. Florida State University is also interested in inviting one student for internship. Within next three years, it is planning to arrange for internship in foreign countries so as to provide international exposure to the students. On joining e-learning industries, the instructional designers have to interact with foreign clients as most of the clients are from the USA, Canada or European countries for which such an exposure is being planned.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

The objective of internship in India or abroad is to provide students with a rich experience of Instructional Designers as well as to the corporate work culture.

Need Addressed and the Context

The METCA is a professional program aiming at training students as Instructional Designers for developing CBT (Computer Based Training) or WBT (Web Based Training). During the first three semesters students learn about ID theories, Models, Learning theories, Research methodology etc. as educational technology aspects. They also learn to use as many as 12-14 softwares. There is a need to consolidate both these aspects (Educational Technology and Computer Applications) and put them to use for designing quality educational environment. The internship is planned to provide this experience. Similar to other professional programs, METCA as a professional program, introduced mandatory internship in industries.

KA 1 - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

KA VI - QA 22 - QI 62:

The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.

KA VI - QA 22 - QI 63:

The activities contained in the academic calendar are for optimizing effective and coordinated use of available resources.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure not only to instructional role of teachers but also other roles and functions of the teacher.

The METCA degree holders work as Instructional Designers in e-learning industries. Therefore an internship in e-learning industries puts them into the work-life related situation for one semester. An

Instructional Designer is required to work in a team, and the internship provides them with such an experience.

Description of the Practice

The METCA Program is for 64 credits with each semester giving 16 credits. Internship is arranged in Semester IV and has 10 credits with 6 credits assigned to research based Seminar. Also, during internship students are expected to work for their seminar. However the planning part of the seminar is completed prior to internship, sometime in January.

Planning of Internship: A committee plans the internship generally with the Head of DET and Head of Placement Cell as members. Various aspects of planning are discussed such as number and names of industries where students would be sent for internship, procuring their consent, planning for internship interview schedule, actual dates of internship, stipend to be negotiated (there is an increase in stipend every year) and any other relevant issues. Industries are intimated about the Internship and number of students available sometime in November. The interviews for Internship are conducted in December before the semester end examination.

Major planning is done in the area of student e-Portfolios. The students are required to prepare their e-Portfolios in semester III. At the end of semester III the e-Portfolios get ready. Students are evaluated on the basis of their e-Portfolio both by the DET as well as e-learning industries. These e-Portfolios contain the best of the students, work as well as their resume, philosophy and personal background. As a preparatory step, students are guided to face interviews.

KA II - QA 8 - QI 22:

Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.

Implementation: The students are selected by the industries for internship through written test and interview. They join the industry in the first week of February. They work under a mentor in the industry for 8 hrs a day for 5 days a week, till the last week of May. Internal mentors from the DET are constantly in touch with the students and mentors from Industry. If any student is facing any problem it is immediately sorted out with mutual discussion. Feedback shows that industries are happy with the efforts put in

KA V - QA 17 - QI 47:

The concern for the development of students, is reflected in the student monitoring system in place.

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

by the interns. Since students also have to work on their Seminar, they meet the internal guide almost every fortnight. They also have to make presentations at various levels in the Seminars. This provides them with an opportunity to meet their peers and teachers and share their experiences. The DET also uses Yahoo group to share experiences as well as other learning resources. All most every week through live chat, the students meet their teachers.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

Evaluation: The students are evaluated for their work during internship, which carries 250 marks out of 400. Students are required to write a diary and present it once a month in the class. The mentor in the industry also fills up a monthly evaluation proforma. At the end of the Internship, the student is expected to prepare a written report and submit it to the department. A *viva voce* test is conducted by the internal and external mentors together either in the industry or in the DET. An evaluation rubric is used for evaluation. The feedback proforma submitted by the student after the *viva voce* gives an idea about their satisfaction (which is generally very high) and if required suitable modifications are made or additional inputs provided.

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

KA II - QA 8 - QI 24:

The mechanism employed for gathering, consolidating and disseminating evaluation data reflects fairness and transparency.

The Impact / Outcome

The internship of METCA Program is the culmination point. Thereafter students look forward to work in e-learning industries as project trainees. They also work hard to get in the first five ranks as two students out of these five are selected by the UOR, Canada. Students are motivated to put in their best efforts as they can choose from the best e-learning industries if they are good in performance. Most of the e-learning industries offer these students the job of Instructional Designers on completion of internship. Quality work during Internship is an important criterion for selection by the employer. This results in better output during internship. Students learn to become proactive.

KA V - QA 15 - QI 43:

Institution shows concern for students' progression to higher studies and to a teaching career as well as their retention in it.

Internship experience helps students to get adjusted easily to the work situation. Internship experience is also counted while the salary package is decided by the employer. In comparison to others, METCA students get a higher start and the annual pay package range anywhere from Rs. 2.4 lakh to Rs.5 lakhs.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

The Resources

Since the internship is done in e-learning industries or educational organizations outside SNTTU campus, no physical resources are needed. The organization or industries where students work provide the physical infrastructure for the students to work. It is generally a

KA IV - QA 12 - QI 35:

The physical infrastructure of the institute is suitable and adequate for effectively implementing the programme.

cubicle with a desktop computer and internet connection. In the UOR students have desktop in the office and are provided with laptop at home. The industries and organizations pay the students a monthly stipend for working as project trainees. The DET is not required to put in any additional physical resources for the internship.

However, human resources are needed as the students are prepared for the interviews for internship and every student has an internal mentor from the DET. The industry/organization where the students work also appoints one mentor for interns. Both these mentors guide the student, help in addressing the tasks during internship.

KA V - QA 18 - QI 50:

Institution has a well structured, organized, proactive guidance and counseling unit which is accessible to all students.

The Department invites feedback from the students after the internship. This is used for the improvement of the program curriculum. METCA Program curriculum is modified every year as many new trends come up in the field of Instructional Design. Some of the new trends are incorporated in the curriculum after student feedback.

KA III - QA 11 - QI 34:

There exists a preparedness for and incidence of extending service to other academic institutions.

KA IV - QA 14 - QI 38:

Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.

The DET also invites experts from the Industry to conduct sessions for the students. The DET faculty is also requested to conduct workshops for the Industry employees. The internship

has been an effective bridge between the industry-university. It has become a symbol of Industry-University Partnership.

Requirements for Adoption and Adaptation

Presently, in the Colleges of Education, the students conduct lessons in schools in much detached and discrete manner. In some institutions, the internship is planned just for two weeks. The schools where internship is conducted do not envisage it in any way profitable to them. The internship should be beneficial to both the parties. It should be planned to provide real life experience to the students and to benefit the schools associated with it.

The Internship as a 'Best Practice' has to be evaluated on three Key Areas viz. Curricular Aspects, Teaching-Learning and Evaluation and Student Support and Progression as given below before institutions adopt it.

The Internship program has clear goals. Expectations in terms of skills and knowledge base to be developed during internship are clearly chalked out. The internship experience offers flexibility in implantation process. Students have a choice of Industry where they work as interns.

During the internship, the student gets continuous feedback from both the mentors and peers, which helps them to improve their work performance. Internship is a very unique strategy of teaching and learning. The student learns through experience. It is a constructivist approach. Here the teacher works as a mentor and provides help only when required. The responsibility of learning lies with the learner. One experienced school teacher could work as mentor for 2-3 students. Atleast one teacher educator from the TEI should work as internal mentor.

Continuous evaluation of learning is done by the mentor when the students are working on live projects (Most of the e-learning industries work on international projects so the students participate in the discussion with the international client through audio or video conferencing.) Instead of traditional methods of evaluation, three innovative strategies viz. e-Portfolio, Evaluation Rubric (for qualitative assessment) and Project report and Viva Voce are used for evaluation.

The internship provides students with real life experiences, which enhances the growth and development as an ID. The student's vertical growth is monitored through continuous assessment and feedback.

Assurance of Quality Curriculum for Quality Teacher Education

Rehana Masrur Khan

Editors' Note

The high magnitude of the need for well qualified professionals in TE, particularly in the developing nations is well recognized by the system. The AIOU, Pakistan has tried to provide professional training to teacher educators and educational researchers by introducing M.Phil. and Ph.D. programmes through ODL to meet this demand. The attempt covers in all the six Key Areas (KAs) of functioning of a TEI, namely, KA I Curriculum Design and Planning – QA 1 Institutional Vision (QI 1) , QA 2 Process of curriculum Design (QI 3), KA II Curriculum Transaction and Evaluation- QA 5 Induction/Orientation (QI 12), QA 6 Transaction of Theory (QIs 16&17) , QA 9 Teacher and Teaching(QIs 26 & 27) KA III Research, Development and Extension- QA 10 Research and Development (QI 30), KA IV Infrastructure and Learning Resources- QA 15 System Efficiency (QIs 41 & 42) KA V Student Support and Progression-QA 16 Feedback Mechanism (QI 45), QA 19 Admission Procedure (QIs 53&54) and KA VI Organisation and Management- QA 25 Academic Quality and Management (QI 73).

The Institution

The Allama Iqbal Open University (AIOU) Islamabad, Pakistan, a Mega University, was established in 1974. It is the second Open University in the world and first in Asia and Africa in order of establishment. The last 33 years of AIOU has proven the success of open learning system due to its inbuilt flexibility. It has provided opportunities to the masses particularly women and has also supplemented the efforts of the federal and provincial governments without becoming a financial burden on their resources. It caters to every class of students through its network of Regional Campuses, Regional Centers and part time Study Centers and Regional Coordinating Offices established in different parts of the country. University at present has four faculties i.e. Faculty of Sciences, Faculty of Social Sciences, Faculty of Islamic Studies, and Faculty of Education and the Institute of Mass Education.

The Institute of Education initially placed in the Faculty of Social Sciences was raised to the status of an independent Faculty in 1984. The Department of Secondary Teacher Education (DSTE), an integral part of the Faculty of Education, offers M.A, M.Ed., M.Phil. and Ph.D. level programs to in-service and pre-service teachers through well qualified faculty. At present

there are about 12,000 students enrolled in M.A./M.Ed. level programs, about 85 students in M.Phil. and 12 Ph.D. students working on their dissertation. The minimum requirements for admission to Ph.D. and M.Phil. programmes are first class master's degree or equivalent in the relevant subject from a recognized institution besides qualifying in the interview and passing the GRE exam with at least 50 per cent marks. Minimum duration for completion of M.Phil. program is two years, with two semesters for course work and two semesters for research work and for Ph.D. program it is three to five years. Since the department is a constituent part of the Faculty of Education of the University, the finances are controlled by the treasurer's office.

KA V - QA 19 - QI 53:

The institution has an admission policy, which is appropriate, clear, inclusive and widely publicized.

Objective of the Practice

The programmes aim at preparing quality teachers and researchers. The main objectives of these programmes are to:

- ◆ Prepare scholars who have a grasp of the discipline in general and a command over the area of specialization.
- ◆ Establish a cadre of specialists and professionals in different fields of education who can provide effective leadership in guiding and conducting high level research.
- ◆ Provide opportunities for professional growth and development to scholars in general and in-service personnel in particular.
- ◆ Develop research potential and to promote research activities among the professionals.

KA 1 - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and are compatible with the regional, national and global expectations.

Need Addressed and the Context

Higher education has become very costly in Pakistan, especially in recent years. The lower strata of the society are marginalized and their children hardly have a chance to acquire higher education. Also, people live in tribal and far flung areas where facilities for formal higher education are not available. The AIOU is attempting to meet this challenge and trying to keep a window open for them. Distance education in Pakistan particularly is suitable to all these sections including women and outreach population as it provides opportunity to study at home, and is flexible in terms of age and time.

At the AIOU continuous efforts are put forth to cater to the varied needs of the students by revising the various courses of study. Recently, one such attempt has been to render the

M.Phil. programme in keeping with the recent innovations in distance learning as well as the student's present and future needs .

Description of the Practice

The practice pertains to the development and execution of relevant course material for M.Phil. and Ph.D. programmes in teacher education through ODL. Both the programmes of M.Phil. and Ph.D. in Teacher Education require completion of course work and thesis. The course work is further divided into two components: core courses and specialization courses. It is pertinent to mention that the two departments of Secondary Education have a practice of providing appropriate and adequate orientation to students on ODL systems. Even those who do not have access to internet are provided with study guide and web based study material on CDs prepared by the Department. The Faculty of Education also offers a compulsory course on 'Computer applications in Education' providing an opportunity to the students to learn and use computer applications in his/her presentation during the Group Orientation Workshop which is the main component of each course. Moreover, it further facilitates the best use of computer technology in research.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

KA II - QA 5 - QI 12:

Comprehensive orientation is given to the freshers about the institution and the programme.

KA II - QA 6 - QI 17:

The staff and students have access to technology and information retrieval on current and relevant issues.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

Computers and other audio and visual facilities are made available at Regional Centers enabling the students to study the course content using modern gadgets. In the beginning of the semester, the students have to attend a three days introductory workshop for each course. Afterwards a one week workshop for each course is held at the main campus, which is mandatory for every student. The students are required to make a 20-30 minutes presentation on the topic assigned to them by the coordinator of the course, which is assessed and later added to the final evaluation. The

KA I - QA 2 - QI 4:

It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

curriculum includes full credit course with one week's 'group orientation' and half credit course, which has the same duration of study (one semester) but for a three day duration for 'group orientation workshop'. The content of the full credit and half credit courses comprises 18 units and 9 units respectively with four assignments for full credit course and two assignments for half credit course.

The assignments covering each unit are prepared by keeping in view the logical sequence of the course, critical analysis of the situation and application of knowledge. Students are intimated about their part-time tutor/s and the schedule for the submission of each assignment by the Directorate of Regional Services. This continuous assessment prepares the student for the final examination. At the end of the semester final examination is held. One has to qualify the assignment component and workshop component

KA I - QA 3 - Q18:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

separately before final examination. The process of development of curriculum is presented as Figure 1. In any AIOU program the courses are conceived, proposed and then the scheme of studies is developed at departmental level by keeping in view the need, modern trends and the existing models at global level and the available resources of the faculty and the university.

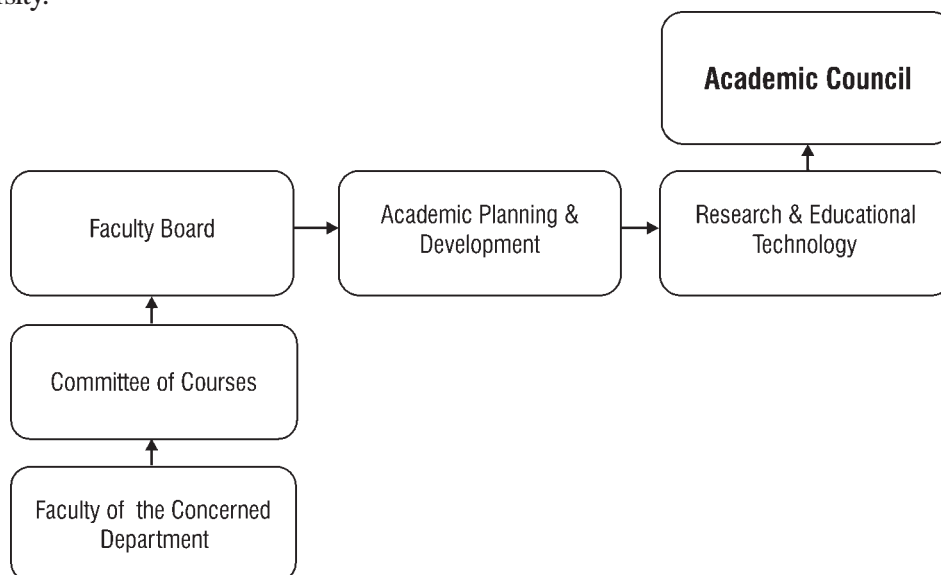


Figure 1: Curriculum Development Process

The Department does a lot of thinking and basic work for a well conceived course. The concerned faculty member then develops the course outline of the proposed programme detailing the course description, objectives and references. Information and Communication

Technology is being fully utilized during the course development process. For every department there is a Committee of Courses, which is headed by a chairperson and comprises the academic staff of the department and four eminent teachers in the relevant field external to the University. The members of the Committee are suggested by the Department and approved by the university. The proposed 'Scheme of Studies' is discussed in the Committee and changes, wherever necessary, are suggested.

KA I - QA 2- QI 3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

After revising the proposal on the basis of the suggestions of the committee, it is entered on the prescribed 'course development proposal form' to be placed before the Faculty Board. The 'course development proposal form' has five main sections covering the rationale, objectives and main topics of the course, identifies the name of unit writers, unit reviewers, expected enrolment, expenditure to be met on the development of course, time of launching the course, assessment of the need, number of units, number of pages, media input, and internal and external resources required during the development process. During the process of course development the Department seeks the inclusion of Broadcast and non-Broadcast material from the Institute of Educational Technology of AIOU. Here the role of the Bureau of Academic Planning and Course Production (AP & CP) is especially relevant.

KA VI - QA 21 - QI 57:

The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

The Faculty Board consists of all the academic staff of the departments and Institutes under the purview of the Faculty as well as the eminent specialists drawn from other institutions. Members of the Faculty Board discuss the proposed scheme of studies, courses, course outlines, the assessment and evaluation procedures and the changes proposed by the Committee of Courses. Only with its approval a similar exercise is carried out in RET & RD committees and finally, the Academic Council, the approval of which is essential for the concerned department to start work on the actual production of the course material.

In case of development of a text book (for M.A.) the approved unit writers are requested to write the course unit/s according to the format given by the department, which is reviewed either by the coordinator or by external experts. After seeking the content approval of the course from the Dean, the course is submitted to editing cell. The coordinator

KA VI - QA 25 - QI 73:

In the management of the programme the institution adopts a participatory approach involving all the employees.

collaborates with the editing cell in providing clarification to the queries and deficiencies pointed out by the editor. Thereafter, it is sent to Printing and Production Unit for composing and printing. The coordinator of the course is responsible to collaborate with the editing cell, the Design Section and Printing and Production Unit in proof reading of the drafts of the manuscripts including checking and proper placement of illustrations, figures, headings and other components.

For M.Phil. and Ph.D. level courses, the unit writers are requested to identify and provide latest allied/study material and web material according to the approved outline. The unit writers and the coordinator write the study guide on the approved pattern which includes unit introduction, objectives, introduction and description of topics/subtopics referencing the allied material and web material.

KA II - QA 9 - QI 27:

Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualize and carry out curriculum transactions according to the nature of the enrolled student groups.

Research Component: For the M.Phil. a one week (five sessions per day) Group Training workshop is held in the main campus in research synopsis writing . Students prepare synopsis on three different topics of their choice, which, they present and defend in the workshop. After the selection of an appropriate research topic they are directed to get the consent of Ph.D. faculty member for guiding and supervising them in the preparation of research proposal and thesis. The students are directed to choose research supervisor from within the faculty or outside the faculty from the panel of supervisors approved by the statutory bodies. The Board of Advanced Studies and Research (BASR), comprising all heads of departments of AIOU, all Deans, and eminent scholars from other Institutions discuss and approve or reject the proposal or modify the topics and suggest the changes in the proposal. The Board also approves the proposed supervisor. The Postgraduate admission office notifies on the request of the Department - the approved topic, appointment of the supervisor, fee to be paid and initial period to be taken to complete the research thesis. The Department continuously monitors the progress of the research work of the students through the semester wise progress report sent by the supervisor.

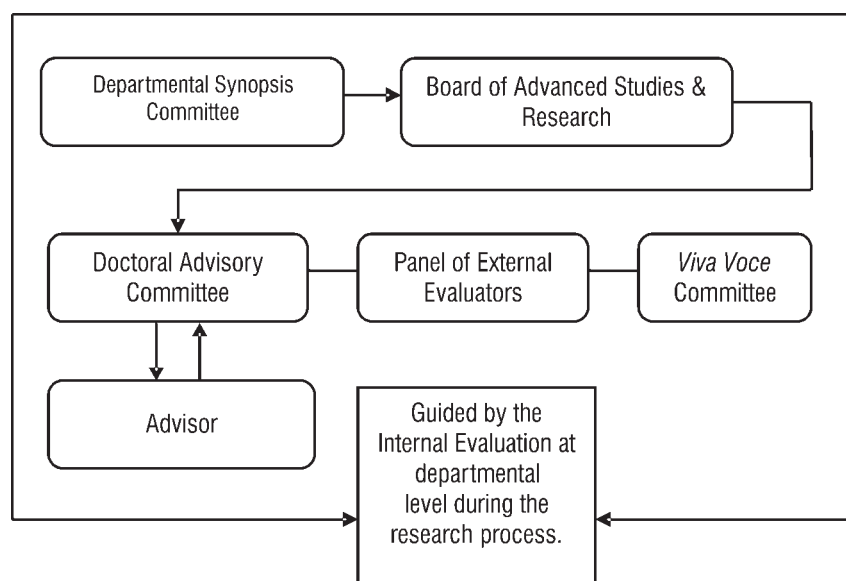


Figure 2: Doctoral level Research Process.

The Department of Secondary Teacher Education has a well defined and approved procedure for Ph.D. level research design and candidacy. There is a three-member departmental synopsis committee which

KA VI - QA 25 - QI 73:

In the management of the programme the institution adopts a participatory approach involving all the employees.

conducts the synopsis-orientation workshop. The committee helps the student to identify the topic, develop preliminary synopsis and also choose the supervisor. The synopsis is developed in accordance with the guidelines/format approved by the BASR, is then recommended by the departmental synopsis committee for approval from BASR. After the approval of the topic and supervisor the researcher starts his/her dissertation. There is also a three-member Doctoral Advisory Committee, which meets as often as possible to study and review the student's research work and suggest improvements and changes. The committee may also use electronic media in addition to face to face meetings. Doctoral level research process is illustrated in figure 2. The Ph.D. scholar is required to publish a research paper from his/her work in a Higher Education Commission approved research journal before the thesis defense. The researcher is required to submit a declaration letter stating that the research work submitted by him/her is original and the supervisor in his/her forwarding letter should also confirm that he/she is satisfied with the work of his/her advisee. Besides these stated rules and regulations the coordinator of the programme evaluates the thesis and ensures its quality (format, clarity, language structure) before submitting it for external evaluation. External evaluation is done by two or three foreign experts in the related field from technologically advanced countries and one in country external evaluator selected from the panel of external evaluators approved by the Vice Chancellor.

The Resources

The available resources with the DSTE are adequate to carry out the programme as there is a well coordinated inter departmental support also available within the University. The Department has well qualified staff to carry out the essential organizational requirements within the university. The department staff participates in the process at all levels of programme designing through to its execution. There is a vast data base of 40,000 experts to draw from as and when required. The

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.

University has well streamlined procedures for all aspects of its functioning from enrolment through the conduct of academic programmes to assessment and certification. There are several bodies within the AIOU for ensuring quality and relevance of every programme at different levels. The finances are controlled by the University and the ‘treasurer department’. The University audit section have the responsibility of timely release of the funds as per approval for printing and production of course material and other activities. The University has its well established Institution of Instructional and Educational Technology which helps the departments in developing electronic material, which includes audio and video cassettes, material on CDs, and to prepare programs to be telecast and broadcast. The University has structural arrangements to ensure co-operation and support across all servicing departments (Editing cell, Print and Production Unit, Central Library, Research and Evaluation Center, Computer Center, Directorate of examination, Directorate of admission, Institute of Educational Technology, and Bureau of Academic Planning and Course Production) and the academic departments.

KA II - QA 6 - QI 17:

The staff and students have access to technology and information retrieval on current and relevant issues.

Support of ICT is available with the Department for conducting the workshops. Faculty is encouraged to attend conferences, publish papers, carry out research projects, and attend workshops. All these help in building resources and provide the opportunities for professional growth. They are further encouraged to do Ph.D. and earn postgraduate diploma, since these are the requirements for University teachers.

KA IV - QA 14 - QI 40:

Efforts are made to up grade professional competence of not only academic but also administrative staff.

The Impact/Outcome

The increasing popularity of M.Phil. and Ph.D. programmes is an indication of the perceived relevance of the programmes in the field level. The number of applicants who seek admission has crossed thousands as against the limited seats available. The applicants are mainly university teachers, school teachers, heads of institutions, army officers etc. The Department of Secondary Teacher Education (STED) has produced M.Phil. and Ph.D.s who are working at school and university levels. In terms of cost effectiveness, the average cost per course at AIOU is significantly less than the courses offered in the conventional universities. In order to ascertain the quality of material produced feedback from students, tutors, employers and other related personnel was collected through a survey conducted by the author in 2006 which shows that they were satisfied with their courses. Women students exhibited higher level of academic satisfaction than men. The high 'mean satisfaction score' of female students indicates the greater suitability of the distance education system of AIOU for women. Statistics show that 60 per cent students have completed their program at all levels from STED. It is a great contribution of STED in overcoming the scarcity of trained teachers in the country especially in remote and less privileged areas due to its large input. More and more students are applying and the enrolment is increasing year after year. The effectiveness of the programs can further be envisaged in the course development and transaction, and research.

The course development and transaction: Since the programs of STED are subject to the rules and regulations governing all academic programs of the University, this has ensured standards for quality teacher

KA1 - QA 2 - Q13:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

education. The courses offered by the secondary education department through distance learning system are as good as in the conventional system. These courses of STED are being taught in other Teacher Training Institutions as well. Researchers have assessed the quality of the courses offered by Faculty of Education. They found that courses and continuous assessment system of AIOU assures quality like any other conventional system of teacher training programs. The majority of respondents in a study conducted by Choudry (2003) found that courses developed by AIOU are easy to understand and the content related activities are placed properly in the text. He further concluded that "courses are at par with the courses of formal system".

One of the factors for the popularity of AIOU programmes is the evaluation of course material. The material is evaluated through expert appraisal by content specialists and educational

technologists. It can be concluded from the various studies conducted that the academic quality of Programmes of Secondary Teacher Education Department (STED) have reached the level of students' expectations. Moreover, degrees of STED have been given equivalence to the degrees of other formal institutions of teacher education by HEC. Due to the fact that it is a flexible program in which students study at their pace, the rate of completion of the program remains low, with only 60 per cent students completing their degree programs.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

KA V - QA 15 - QI 42:

The reasons for dropout are acceptable and the dropout rate of the programme is well within the expected limits.

Research: One of the aims of STED is to produce quality research, which has been recognized by the external evaluators and examiners. It is worth mentioning that though a researcher works under the guidance of a supervisor, the department continuously evaluates the students' theses for ensuring the quality. The outcome of the research activities carried out by the University's Research and Evaluation Center either on the request of academic departments or at their own initiative provide feedback on the effectiveness of the course or program with reference to the students, tutors and other stakeholders. In the light of this feedback the courses or programs are reviewed.

KA V - QA 16 - QI 45:

The institution has a comprehensive feedback system in place through which relevant data/information is collected and collated.

Requirements for Adoption and Adaptation

The existing practices of course development put too much demand on the system. System is very rigid in its present form. Modification in course development procedures and research practices of STED will make the system flexible. Though different stages of course and curriculum development provide built-in checks and formative evaluation, it causes considerable delay in materializing the things. It has been noted that by the time the course is ready for offering, the latest references and content become three to four years old. Similarly, the revision procedure also faces the same challenges. Institutions, which want to follow these practices, may modify them according to the requirements of their program. In fact, adopting these practices require:

- ◆ Knowledge about innovations at global and local level.
- ◆ Training in developing self-learning material for a distance learner.
- ◆ Expertise, hard work, knowledge and command in subject matter.

- ◆ A clear understanding of the objectives of the course.
 - ◆ Knowledge about editing, composing, and printing process.
 - ◆ Motivation and supportive atmosphere.
 - ◆ Balanced work load for course developers during the process of course development.
 - ◆ Not only provision of ICT, but also expertise in its effective use.
 - ◆ Resourceful library at regional level.
 - ◆ Frequent meetings of statutory bodies for early approval of the changes in the Curriculum.
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Green Teacher: Evolving an Innovative Curriculum in Environmental Education

Shivani Jain
Mohan Menon

Editors' Note

This case study discusses the initiatives of the CEE in implementing the diploma in environmental education course for teachers. The course is basically designed to enable teachers to effectively transact in the classroom issues and concerns on environment and initiate students to action oriented projects and activities related to EE. The major Key Areas (KA), Quality Aspects (QA) and Quality Indicators (QIs) covered are : KA I Curriculum Design and Planning – QA 1 Institutional Vision (QI 1), QA 2 Process of Curriculum Design (QIs 2 & 3), QA 3 Curriculum Content (QI 5), QA 4 Curriculum Revision (QI 11), KA II Curriculum Transaction and Evaluation- QA 6 Transaction of Theory (QIs 14,15 & 16), QA 9 Teacher and Teaching(QI 28) and KA VI Organisation and Management- QA 25 Academic Quality and Management (QI 74).

The Institution

The Centre for Environment Education (CEE) was established in August 1984 as a Centre of Excellence supported by the Ministry of Environment and Forests, Government of India. The CEE, a national institution with its headquarters in Ahmedabad, has a mandate to promote environmental awareness nationwide. Affiliated to the Nehru Foundation for Development, the CEE is an autonomous, registered society. The CEE operates through a team of about 300 staff members spread across 30 offices in different locations within India; and one office each in Australia and Sri Lanka.

The CEE has been conducting in-service training programmes in environment and development education and communication for a variety of groups, educators and communicators, teachers, teacher-trainers, forest officers, industries, communities, etc. in partnership with a number of agencies like Ministry of Human Resource Development, Government of India, Commonwealth of Learning, Vancouver, Canada, Ramboll Natura, Sweden, IUCN, UNEP, UNESCO and WWF, both at national as well as international levels. South Asia Cooperative Environment Programme has designated CEE its subject matter focal point for EE and Training.

Objective of the Practice

Green Teacher is a one-year ‘Diploma in Environmental Education’ for teachers and educators developed and designed by CEE India in partnership with the COL, Canada. Offered through the distance mode, this course is the first of its kind in India. The course is designed with the objective to enable teacher-learners to effectively take up environmental concerns and issues in the classroom, and engage their students in practical, action-oriented Environmental Education (EE) activities and projects. Thus Green teacher is a *continuing learning opportunity* in EE for *practicing teachers*.

KAI - QA 1 - QI1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and are compatible with the regional, national and global expectations.

The goal of the Green Teacher curriculum is to empower educators with knowledge, ideas and skills which can help in greening their teachings. Specifically, the four Course Modules aim to enable learners (practicing teachers):

- ◆ To strengthen their understanding of Ecology and provide them with ideas for transacting ecology concepts in interactive ways.
- ◆ To appreciate the complexities of environment-development issues by equipping them with the ability to view a problem from a variety of perspectives and selecting a plausible solution in a given context.
- ◆ To explore the ‘practice’ of communicating the contents in a variety of ways that could enrich and enhance the traditional/tried and tested textbook and chalk and talk methods.
- ◆ To explore a range of resources and opportunities available for conducting EE in schools and to enable them acquire an ability to see and make use of opportunities available within the school system—text books, local visits, nature camps, using available media, etc.

KAI - QA 2 - QI3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

Need Addressed and the Context

In the formal education system of India, the importance of integrating environmental concepts was recognised with the movement of Basic Education, launched by Mahatma Gandhi in 1937. This was the first serious attempt at relating education in the schools to local environmental needs. The National Policy on Education (1986) also stressed on the need for EE in formal education. Further, the most recent concern for mainstreaming EE in India was

spelled out by the Honourable Supreme Court in its judgments (2003) pertaining to introducing environment as a compulsory subject at all levels of education from the academic year 2004-2005. This has led to a great demand for teacher training in EE. While this is a reality, there is also a reality of concerns such as - few resources or facilities for EE, limited access to teaching aids, tremendous work load on teachers, large number of students in a single class, limiting possible teaching - learning methods to lecture methods.

In the Indian context, key challenges/barriers to effective in-service teacher training in EE include:

- ◆ *Time availability with learners:* Being in-service, the ability of teachers to take on intensive, long duration training programmes is limited.
- ◆ *Heterogeneity in the 'learner group':* Since EE is multidisciplinary, the challenge is in designing a training programme to ensure that all subject teachers find the training meaningful.
- ◆ *Diversity-Flexibility:* For a training programme to be effective and relevant across a vast country with tremendous diversity, a high degree of flexibility is a must. In terms of EE, dealing with high diversity - ecological as well as cultural - is challenging.
- ◆ *Limited resources:* In a country like India, the sheer numbers that need to be dealt with, tend to always pose the challenge of resource limitation. This challenge requires that, by design, a training programme becomes cost-effective.

Further, EE is all-encompassing, multidisciplinary and dynamic and it is geared towards understanding and solving real-life problems. A teacher already trained in teaching Arts and Science subjects is concerned of special set of skills required for imparting environmental education. The Green Teacher Course curriculum and the course material have been designed within these realities of EE, the Indian education system and teacher's roles, responsibilities and the dilemma within it.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

Description of the Practice

Some critical features of EE are:

- ◆ EE is multidisciplinary (links with science, social science, political studies, economics, technology, etc.).

- ◆ EE is dynamic and contextual.
- ◆ EE is as much about developing skills of higher order (critical thinking, analytical skills, problem-solving skills, etc.) as it is about strengthening knowledge.

Environmental educators thus need to:

- ◆ Have a multidisciplinary perspective.
- ◆ Have an understanding and appreciation for diversity in life – biological, cultural and social.
- ◆ Have the ability of designing learning experiences that would facilitate development of skills among learners.

Teacher, as an environmental educator should be able to:

- ◆ Develop a multidisciplinary perspective in a short time and apply it to the teaching-learning process
- ◆ Innovate/adapt teaching-learning of her subject so as to be able to integrate environmental concerns into it
- ◆ Make linkages between her subject (curriculum, syllabus and text books) and the larger goal and objectives of EE
- ◆ Design and use interactive and learning experiences within the framework of school education and transact EE effectively

Given that training in EE has a greater focus on ‘skills’ the process of curriculum development and design of the distance education programme for the Teacher was a challenging task for the course team. The Green Course attempts at two sets of overall objectives – one dealing with knowledge component, and the other dealing primarily with skill building for effective transaction of EE.

What would make the Green Teacher Curriculum ‘good’?

‘Transferring of skills’ on distance mode, without making the programme too technology dependent (schools, teachers and students in India even today have limited access to ICT) was a task that required a great deal of thinking, planning and innovation on part of the team of authors. The curriculum of Green Teacher was required to be:

Skills-based: Given that Green Teacher is an in-service programme, it was required that the curriculum be developed based on the basic knowledge and skills that all environmental educators must possess. This required a skill-based curriculum. Designing a curriculum which is skill-based and which can be effectively transacted and supported over distance mode of learning is challenging.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

Multidisciplinary/pluralistic perspective: Since EE is multidisciplinary and Green Teacher programme is open to all teachers/educators irrespective of their subjects of teaching, the course curriculum needed to be multidisciplinary in content and writing style.

Flexible and adaptable: Since EE is dynamic and contextual; teaching-learning in EE needs to be real-life based. Therefore curriculum of the Green Teacher course (a national level programme being offered through open and distance learning mode in multiple locations in a country with vast diversity) needed to be flexible to suit a variety of contexts and situations across the nation. Flexibility in the design of the course curriculum was also critical towards providing real-life and context-based learning experiences to the learners.

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

Responsive: Green Teacher was being designed as an in-service, continued education programme for middle school teachers of all subjects and hence the background subject knowledge of teachers taking the course could be very varied. Therefore the course curriculum was required to be responsive to specific needs of teachers. Further responsiveness of the curriculum would allow the learning experience not only to be learner-centred, but also learner-controlled. Thus, learners could bring in specific inputs in the course content, enriching the learning process.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also their other roles.

Curriculum development and design process: Given that the Green Teacher curriculum required to be developed as a set of 'self-learning material' containing the above mentioned features, it was decided to

KA I - QA 2 - QI 2:

Curriculum is visualized with adequate and appropriate interfacing of various curricular components including the goals and objectives through active deliberations.

develop the curriculum through an extensive consultation process. A multidisciplinary team of subject experts, instructional design experts and curriculum writers and authors acted as the core reference team. Several discussions, interactions and workshops within

KA VI - QA 21 - QI 57:

The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

the core team and discussions with subject experts and practicing teachers, led to appropriate innovation in curriculum planning, design and actual writing of the course material. Further, an Advisory Committee of eminent experts in the field of teacher education, environmental education and open and distance learning guided the process of not just the course product development, but the overall process of the course development as well.

The output, the Green Teacher Course material, is a set of 4 modules:

Module 1 : Basics of Ecology and Life Support Systems

Module 2 : Understanding Sustainable Development

Module 3 : Environmental education in schools

Module 4 : Resources and opportunities for EE

Consultations with different experts in the field of self-learning instructional design led to innovative writing style. While the four course modules

are structured following a common framework, the writing style of these are rendered suitable to their content/information. The first two modules are more knowledge-based and are written in a ‘prescriptive’ self-learning format; the third module focusing on ‘skills

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

in EE’ follows a ‘situated learning’ style of writing, while the fourth module (giving ‘ideas’) is written as self-learning material in a ‘suggestive’ style. The 4 course modules are further supported by relevant reference and essential readings as well as a Learners’ Handbook.

The Resources

Like in most other projects, a variety of resources-expertise, educational material, training and workshop material to financial resources-would be required to undertake an exercise like this. However, the most important resource in a process of developing a pluralistic and multidisciplinary curriculum is the team of experts from relevant background-a multidisciplinary

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

KA III - QA 10 - QI 29

Teachers explore better ways of functioning and build upon their experiences systematically.

team of experts from environmental education, teacher education, trainers, writers as well as instructional designers.

The Impact/ Outcome

The modules developed for Green Teacher have the following features:

- ◆ *‘Openness’ allows learner-controlled learning:* In the Green Teacher Material there is immense scope for feedback/input from the individual learners into the larger learning process as s/he uses the course material, allowing the learner to contextualize the learning.
- ◆ *Adaptability and Flexibility:* To suit needs of a heterogeneous learner group, flexibility is built in the content and material through examples, case studies. Further, all learners need to take a 4-5 month Course Project which they need to do in their respective schools with their pupils. This provides for flexibility, wherein each learner, based on his/her realities and requirements, can apply the same sets of learning to his/her unique teaching-learning situation.
- ◆ *Cost and resource-effectiveness:* The mode of open and distance learning has enabled optimization of the programme’s reach without putting too much demand on the systems.

KA II - QA 6 - QI 15:
<i>The instructional processes are geared to develop of reflective thinking and practice both individually and in groups.</i>
KA II - QA 6 - QI 16:
<i>Curricular activities reflect interconnectedness among the various components of the programme.</i>

Requirements for Adoption and Adaptation

The experience and process of the Green Teacher content development and design can act as a good reference example for writing of curriculum of courses which:

- ◆ Are meant for in-service professionals
- ◆ Focus on ‘continuous and reflective learning’
- ◆ Are multidisciplinary and pluralistic in their philosophy and design
- ◆ Deal with a heterogeneous composition of learner groups
- ◆ Focus more on ‘skill building’ rather than ‘transfer of knowledge’ only
- ◆ Focus on assessment of ‘learning’ rather than assessing ‘what was taught’

Further, as mentioned earlier, inputs and guidance from a multidisciplinary team of experts from fields such as environmental education, teacher education, trainers, writers as well as

instructional designers is critical to bring in the much required orientation and features of good self-learning material.

The Institution which is designing a programme such as the Green Teacher needs to be a learning institution. Also the course design should provide feedback mechanism as well as a feedback loop feeding into the Course in an ongoing (formative) manner.

ICT Integration for Qualitative Improvement of Teacher Training Programmes

Surender S. Dahiya

Editors' Note

This case study illustrates the attempt of the institution to strengthen the identified area of improvement i.e., ICT integration and technology deployment for qualitative improvement of the programme. In doing so, the institution applied Quality Indicators (QIs) falling under Key Area (KA)II: Curriculum Transaction and Evaluation - QA 5 Induction/Orientation (QIs 12 & 13), QA 6 Transaction of Theory (QIs 15 & 17), QA 8 Assessment and Evaluation (QI 23), KA IV Infrastructure and Learning Resources- QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resources (QI 40), KA V Student Support and Progression- QA 17 Diagnosis and Remedial Programme (QI 49).

The Institution

The C. R. College of Education, Rohtak is one of the premier institutions in the region being run under the aegis of Jat Education Society. The college has been named after Din Bandhu Sir Chhotu Ram, an illustrious son of Haryana, India to commemorate and to carry on his task of bringing light and learning to the unsophisticated peasantry in this part of the country. This institution was established in 1951. Excellence is the watchword of the institution.

The institution is affiliated to M. D. University, Rohtak. It is recognised by NCTE and the Directorate of Higher Education, Haryana. It is a grant-in-aid institution where 70% of the salary grant is provided by the government. The College offers a Bachelor's (B.Ed.) and a Master's programme (M.Ed.) in Education. In the session 2005-06, 120 B.Ed. students and 25 M.Ed. students were enrolled. The Institution follows the syllabus prescribed by the M. D. University, Rohtak for both the programmes. Admission to B. Ed. programmes is done on the basis of centralized admission test conducted at the state level. Admission to M. Ed. is made on the basis of students' academic merit at B. Ed. level. The institution has a well-organized management system. There is an elected Managing Committee to look after the affairs of the college. There are teaching staff and non-teaching staff representatives in the college committee. Autonomy is given to the Principal to organise and manage the institution. Students come from varied socio-economic backgrounds. Almost all students appear for the

qualifying examination of both programmes and there is no drop out. The result is 100 per cent in both programmes. The institution has a formal placement and guidance cell that takes care of students' placement.

Objective of the Practice

- ◆ To create general awareness among prospective teachers about ICT and develop competence in them in its use in teaching-learning
- ◆ To encourage prospective teachers in using ICT for improving classroom teaching and professional development.

Need Addressed and the Context

Teachers spend most of their classroom time on input and output phase and thus get less time for process phase. Use of ICT integration increases the available time for the process phase. Digital content, animations and videos make lessons rich and interesting. Students understand things easily. Today's need is pooling of learning objects, e-content, open source material on net for free use to teachers and students. It is in this context that the institution decided to extensively use ICT in all its processes and deploy the required technology.

Description of the Practice

The ICT integration begins with the ICT Literacy Hunt programme for the newly admitted students. Initially the students are identified and grouped into two major categories i.e. ICT literate and ICT non-literate. Students are also listed on the basis of computer access at home, near by Cyber café, or access to computers in the neighbourhood community resource centers. The students are finally divided into groups on the basis of their teaching subjects. Each teaching subject group is further divided into smaller working groups of 4 or 5 students and care is taken that at least one ICT literate student is included in each group. One week generic ICT training programme is provided to all students. After that, two days' condensed ICT training is provided for the ICT illiterate group. Subject teachers orient the students about writing

KA II - QA 5 - QI 12:

Comprehensive orientation is given to the freshers about the institution and the programme .

KA II - QA 6 - QI 15:

The instructional processes are geared to develop of reflective thinking and practice both individually and in groups.

KA II - QA 5 - QI 13:

The institution has evolved its own process of induction thought out every year, and is before the commencement of the programme.

behavioural objectives, teaching methods, evaluation and integration of ICT in all phases of teaching and learning i.e. input, output and process. When microteaching starts, the microlessons are recorded and used for feedback purposes. As recording of all microlessons is not possible, it is done randomly or as needed using video camera, webcam, etc. A demonstration of the digital material available in library and also select Internet access is organised. It is after this exposure and orientation; the students start to plan their demonstration lessons with ICT integration. Some of these demonstration lessons are also recorded for feedback purposes. Teaching subject clubs organise competitions in preparation of transparencies, powerpoint presentations, preparation of models, gathering relevant data from internet resources, learning objects, e-content development competition etc. Mobile ICTs are used in practice teaching at schools.

KA V - QA 17 - QI 49:

Institution plans and provides additional value added courses in relevant areas of specialization and remedial programmes as per the requirements of the students.

In addition, EDUSAT exposure is also provided to students. Students are motivated to attempt ICT integration during teaching practice in the schools for which OHP, Laptops and multimedia projector are made available to the students. Conducting quizzes using ICT is compulsory for every student. Emphasis is laid on the development of *learning objects* and *e-contents* for ICT integration in teaching learning. Students are encouraged to use digital material and encyclopedias available in the library in their teaching practice lessons. However, the use of ICT integration during teaching practice in schools has been a challenge due to low deployment of technology in schools and many other reasons.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource center necessary for implementing the programme are available and utilized on a regular basis.

KA II - QA 6 - QI 17:

The staff and students have access to technology and information retrieval on current and relevant issues.

The Resources

Financial resources for providing training to staff and technology deployment are generated by the institution. Some financial grants are received by UGC under the plan grants for equipment purchase and library resources. Most of the library grants are used for purchase of digital resources. However, much has to be invested on improving the bandwidth, as the present bandwidth is not sufficient for the institution. Faculty development programmes are organised from time to time. Training and workshops by experts from specialized institutions

are organised in the institution from time to time. Institution motivates teachers to attend conferences, seminars and workshops external to the institution for enrichment and exposure to new developments.

KA IV - QA 14 - QI 40:

Efforts are made to up grade professional competence of not only academic but also administrative staff.

The Impact and Outcome

One main hurdle is that majority of the students admitted in B.Ed. have poor knowledge of ICT. In a one year course of B.Ed. where normally only 15% of the enrolled students are ICT literate, most of the time is spent on ICT literacy training. Added to this the content knowledge of teaching subjects is also poor and this takes away some more time to improve. The course being of one year duration it needs lot of additional efforts and time beyond the regular schedule to achieve the objectives. The B.Ed. syllabus provided by the affiliating university has included only IT literacy and has not included ICT inputs in various teaching subjects. Availability of electricity and the required technology is also a problem particularly in practice schools. Some teacher educators also lack interest in ICT integration and need motivation. However, the outcome of the efforts is that, many students get good placement due to their exposure to ICTs. The faculty of the college also has developed some software/resources such as an e-resource book for “Educational Technology – *towards better teacher performance*” and “Testing in Research Methodology and Statistics” which has earned considerable reputation and recognition to the Institution.

Requirements for Adoption and Adaptation

All TEIs should prepare digital resources according to regional educational needs and put them online for use by others. One should start at individual level and not wait for others. Integration of ICT is more effective through group tasks, preferably with one or two ICT literates. Due to bandwidth problem collecting offline digital resources for the library is worthwhile. Appropriate and timely technology deployment, financial resources for procurement and maintenance, training for faculty and exposure to new developments in ICTs by sponsoring the faculty to various workshops, seminars, conferences and training programmes will enable effective ICT integration.

Towards a Wholesome Teacher Education – The AMRITA Experience

Susheela Seshadri

Priya Kumari

Editors' Note

Teacher education being a professional preparation programme has to ascertain that it impacts not only the conceptual and technical know how of the students but also help them develop holistically fit to face the ever increasing challenges of a school teacher. In recognition of this fact the Amrita School of Education has attempted to evolve and execute a teacher education programme for entrant teachers in which varied experiences are provided in such a way that both curricular and other activities get dovetailed into a meaningful gestalt for the students. Two practices in this context are reported here. The Key Areas (KAs) covered in these practices are KA I Curriculum Design and Planning, KA II Curriculum Transaction and Evaluation, KA III Research, Development and Extension, KA V Student Support and Progression and KA VI Organisation and Management.

The Institution

The AMRITA School of Education established in 2004 is a constituent unit of the AMRITA Vishwa Vidyapeetham (recently conferred a deemed to be University status by the University Grants Commission, Govt. of India). Being an institution established by a spiritual figure, Mata Amritanandamayi, its mission is to '*provide quality education and prepare far sighted, innovative and excellent teachers with good personality and communication skills, capable of molding the future generation of India*'.

Though the institution has a brief existence, the AMRITA School of Education (ASE) has already made its presence felt in the field of TE in India. In keeping with its spiritual backdrop, the School visualizes its TEP in such a way that it provides the enrolled students personally and professionally relevant experiences that enable them to become wholesome, sensitive teachers. At present, the School provides Bachelor of Education (B.Ed.) degree programme and plans to expand in the near future. Though the curriculum structure adopted

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

currently is similar to that followed by other neighboring TEIs, there is a visible inclusion of certain components to meet the institutions vision and mission. Efforts are on to restructure it to suit the institutions vision, goals and objectives. In view of its commitments stated above, the School attempts to make its institutional curriculum comprehensive and contextually relevant essentially through dynamic and flexible modalities evolved for curriculum transaction.

KA III - QA 10 - QI 31:

The institution has the practice of appraising its work through in-house research, institutionalize innovative practices and undertake formal sponsored research projects relevant in institutional and national contexts.

The School has an enrolment capacity of 100 students drawn from diverse socio economic and educational backgrounds with specified numbers from backward communities as per the government stipulations. The TE programme of the School is approved by the state government and recognized by the NCTE. The criteria for admission are as per the NCTE norms. Most of the trainees are postgraduates in various subjects of Arts/Science. The trainees of the previous batches have performed extremely well. The School has a record of securing the highest number of distinctions and ranks under the University of Mysore. Most of the trainees who have passed out are working in various schools and D.Ed. colleges. Many of the trainees have joined Amrita Vidyalayams (schools run by Mata Amritanandamayi Math). Some of the trainees are pursuing higher studies. The faculty comprises of young enterprising and dynamic individuals with the zeal to promote all round development of the trainees through the various activities of the college, with the leadership of an experienced and committed Principal. All the faculty members are NET qualified and pursuing research work. Though the present curriculum is conventional its transaction is built in with an explicit concern for self development of the student teachers with value loadings and social sensitivities. The significant feature is that in all activities conscious attempt is made to discern and include these elements without impinging on their technical and academic rigour. Two practices have been described hereunder as exemplars of the overall curricular experiences provided.

KA V - QA 19 - QI 54:

Institution adheres to the defined admission criteria and the admission procedures ensure a fair and transparent admission processes.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

KA V - QA 15 - QI 43:

Institution shows concern for students' progression to higher studies and to a teaching career as well as their retention in it.

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

KA I - QA 2 - QI 2:

Curriculum is visualized with adequate and appropriate interfacing of various curricular components including the goals and objectives through active deliberations.

About the Practices

Wholesome experiences sensitize adult graduates to their own strengths and weaknesses. Especially, preparing them to shoulder the roles and responsibilities of the teaching profession requires that they recognize the significance of being ‘professional’ with the right attitude, commitment, sensitivity and technical rigor. Therefore, it is necessary that during the TEP they are provided opportunities for these.

KA III - QA 11 - QI 33:

Learning activities have a visible element for developing sensitivities towards community issues, gender disparities, social inequity, and similar issues.

Certain activities designed and carried out during the academic session described in the practices, provide such an exposure, in addition to the value orientation brought into the regular academic inputs.

For an entrant into the field of teaching, the classroom situation seems too complex and unmanageable. Every student teacher is naturally perplexed with this. Therefore during teacher preparation programme, it is necessary that student teachers are adequately ready for dealing with instructional situations before they are given real field exposure. Attempt is made in the Amrita School of Education to provide meaningful and comprehensive preparatory exposures to students before school practice.

Practice A

Personal Development Inputs for Capacity Building

Susheela Seshadri

Editors’ Note

This practice pertains to the inputs for personality development which are provided at different stages during the programme and also are interwoven into the curricular activities. The Key Areas (KAs), the Quality Aspects(QAs) and Quality Indicators (QIs) covered by the practice are : KA I Curriculum Design and Planning – QA 2 Process of Curriculum Design (QI 2), QA 3 Curriculum Content (QI 5), KA II Curriculum Transaction and Evaluation - QA 7 Transaction of Practical Experiences (QIs 20 and 21), QA 9 Teacher and Teaching (QIs 27 and 28) KA III Research, Development and Extension - QA 10 Research and Development (QI 31), QA 11 Community Engagement (QI 33), KA IV Infrastructure and Learning Resources - QA 14 Human Resources (QI 37) KA V Student Support and Progression - QA 15 System Efficiency (QIs 41 and 43), QA 17 Diagnosis and Remedial Programme (QI

Objective of the Practice

The main objective of the practice was to create and sustain an institutional functioning ethos in which each student finds space and motivation to express, feel comfortable, share and absorb one's full capacity. More specifically, it intended to develop self-confidence, clear communication, relevant understanding of and competence for acting as teachers.

Need Addressed and the Context

The need for value based personality development, personal discipline, tolerance and acceptance has taken inimitable proportions. Dealing with adolescents is a great challenge today as they are exposed to diverse forces and stimuli, with lack of goal clarity but robust energy and defiance. Teachers have a great responsibility to guide them to be prepared for the challenges in life. It is therefore necessary to provide adequate exposure to entrant teachers during their preparatory phase, which will enable them to become personally strong, professionally effective and sensitive individuals. In addition, the intake into the School is quite heterogeneous in terms of all aspects. They need to be brought on a common plane so that they derive optimum benefit from the varied curricular inputs provided. In view of these the School feels the need for a conscious design to provide students enriched curricular and cocurricular experiences.

KA V - QA 18 - QI 52:

The guidance and counseling unit provides for activities contributing to a holistic development of the students.

KA V - QA 17 - QI 49:

Institution plans and provides additional value added courses in relevant areas of specialization and remedial programmes as per the requirements of the students.

Description of the Practice

The activities under this practice comprise:

- ◆ Morning prayer - prayer songs from different religions;
- ◆ Contemplation
- ◆ Meditation – 'I AM' technique
- ◆ Warming up exercises
- ◆ Practice simple Yoga
- ◆ College Anthem
- ◆ Readings and reflections from scriptures

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

- ◆ Public speaking and other activities for developing communication skills

Each day begins with prayer session from different religions. This provides scope to focus attention on spiritual thoughts and helps begin the day with ease and enthusiasm. This is followed by contemplation, meditation, warming up exercises and simple yoga culminating with group singing of college anthem. Once a week readings from scriptures and/or recitation is arranged and the students and staff are encouraged to reflect on these and present them at the assembly. During the morning assembly, a theme is projected on the screen for a few seconds which students are instructed to study carefully. In order to review and help them focus their thoughts on the theme, and relate it to the context they are asked to respond to a questionnaire. They are further encouraged to come up on the podium and express their perceptions on the theme – the educational, social, intellectual, psychological and of course spiritual implications. A complete openness to any kind of views is adopted during these sessions. Such an inhibition free atmosphere resulted in improved motivation of students’ free expression. Even the usually timid students have been found to be frank and free in voicing their views. At appropriate situations during the various transactions the relevance of self confidence, frank expression of opinion, acceptance of diverse views, appreciation of the possibility of divergence in human thinking, and most crucial to teachers - the significance of ‘express clearly and briefly’ is impressed upon the students.

KA I - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

KA V - QA 15 - QI 43:

Institution shows concern for students’ progression to higher studies and to a teaching career as well as their retention in it.

KA I - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

Through out the day, in every learning situation that students experience, the same spirit of individual initiative, collective effort, and efficient use of resources for goals beyond self, is maintained. Attempt is made to sustain a cohesive, open ethos in the institution by the principal and other staff members willingly. This has been made possible through

- ◆ free access to all facilities
- ◆ free access to principal and the teachers
- ◆ considerable flexibility in the time table
- ◆ ample space, laboratory facilities, open space, leisure time activities

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.

- ◆ good library facility
- ◆ demeanour of friendliness with dignity in the staff

During tests and examinations, for almost an hour students are provided special meditation with background instrumental music. This helps students to focus their attention, subdue the test anxiety, and be ready for the test. The total silence and the melodious music make the atmosphere soothing and comfortable.

KA II - QA 9 - QI 27:

Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualize and carry out curriculum transactions according to the nature of the enrolled student groups.

Students of previous years have given very positive feedback about this practice.

The Resources

The main resource required is the staff. As the teachers, principal and the administrative staff have accepted the institutional goals with its underlying spiritual emphasis, there is a commitment and willingness to conduct oneself in certain ways. Adequate infrastructure in the form of space, facilities including library, laboratories and personal upkeep, provided by the institution are sufficient.

KA IV - QA 37 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilized on a regular basis.

The Impact/Outcome

During the short period of its existence the College has made a definite place for itself in the region. The staff evinces adequate interest as considerable sharing of responsibilities is there. Feedback from students has

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

been very positive. In spite of the fact that majority of the students are from low social, educational and economic background, and poor performance at their entry levels, their performance at the final examinations has been excellent. Most of them secure first class and many of them achieve distinction. The practice has contributed to building an institutional ethos of efficiency, camaraderie and productivity within the short period of three years.

Requirements for Adoption and Adaptation

The practice is essentially relevant only with a conviction in the view that spirituality is in every person and helps sustain positive attitudes and other relevant attributes necessary for being a good social being. This practice can be adopted wherever there is institutional cohesiveness

and openness among the staff and students. When teachers own their responsibilities and work willingly it builds the institutional ethos, which is crucial to this practice. No special infrastructure is needed.

Practice B

Preparatory Experiences to School Based Practice

Priya Kumari

Editors' Note

In this case study, an overview of the initiative taken by Amrita School of Education to implement 'preparatory practical experiences' integrating ICT has been presented. From the experiences of this practice it evolves that systematic visualization and execution of the various activities of the TEP will have distinct impact on students despite their individual differences. The Key Areas (KAs), The Quality Aspects (QAs) and Quality Indicators (QIs) covered by the practice are: KA I Curriculum Design and Planning – QA 2 Process of Curriculum Design (QIs 3 & 4), QA 3 Curriculum Content (QIs 5, 6 & 8), KA II Curriculum Transaction and Evaluation - QA 5 Induction / Orientation (QI 13), QA 6 Transaction of theory (QIs 16 & 17), QA 7 Transaction of Practical Experiences (QIs 18 & 21), QA 8 Assessment and Evaluation (QIs 24 & 25), QA 9 Teacher and Teaching (QI 26), KA III Research, Development and Extension - QA 10 Research and Development (QIs 30 & 31,), QA 11 Community Engagement (QI 33), KA V Student Support and Progression - QA 15 System Efficiency (QI 41), QA 16 Feedback Mechanism (QIs 45 & 46) QA 17 Diagnosis and Remedial Programme (QIs 48 & 49) QA 19 Admission Procedure (QI 54) and KA VI Organisation and Management - QA 22 Academic Calendar (QI 62).

Objective of the Practice

The practice mainly aims at providing varied and relevant initial exposures through which students develop the needed skills and understanding of instructional situations and are mentally and emotionally ready to function as teachers. More specifically, the practice intends to

- ♦ enable students to communicate effectively in instructional situations,
- ♦ gain a basic understanding of the dynamics involved in the instructional process through simulation, observation and hands on activities.

KA II - QA 6 - QI 14:

The various courses of theoretical study are provided in order to develop an understanding and appreciation of teacher in a holistic educational perspective through dynamic learning experiences.

Need Addressed and the Context

The newly enrolled students vary greatly in respect of their entry behaviours and educational background. Though all are graduates many are found unable to communicate clearly, are poor in observation, have strong preconceived notions about teaching and behaviour of adolescent children. The institution has

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

the goal of sensitizing students to needed value orientations as Indian Citizens as well as professional teachers. The institutional features such as regularity, commitment, concern for quality and self effort need to be inculcated uniformly in all students. Teachers own a conviction that with preparatory exposures it is possible to instill the required qualities in all students irrespective of their differences at the entry point and thus the attempt was made to provide relevant pre-programme exposures to the students.

Description of the Practice

As stated earlier, the practice involves providing several kinds of experiences to initiate students to actual teaching. These exposures mainly comprise:

- ◆ Microteaching – skill based practice in micro sessions
- ◆ Demonstration lessons by teacher educators
- ◆ Simulated teaching experience
- ◆ Workshop sessions for preparation of lesson plans

KA I - QA 2 - QI 4:

It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.

In all these activities attempt is made to provide ample freedom for analysis, discussion and assimilation by the adoption of retrievable media. All these are dovetailed in such a way that they form a composite set of exposures. Below is a description of how this is done by interweaving all experiences around simulated skill based practice (microteaching). The rationale for microteaching is that teaching is a complex and demanding activity, involving techniques of organization,

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

KA I - QA 3 - QI 6

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

control and command of teaching skills well beyond the prospective teacher at the beginning

of his/her course. Microteaching thus attempts to reduce the situation to manageable proportions. While preparing the Academic Calendar teacher educators keep this in mind and provide a period of 23 days for the Microteaching Workshop. This phase is scheduled for the month of April after their first official test so that the trainees can concentrate solely on microteaching. In the faculty meeting, the details of the orientation to microteaching, teaching skills to be taken up, the teaching skills that each teacher educator would be handling is discussed. A schedule for the microteaching workshop is prepared. Later trainees are divided into groups. Every group consists of 8-9 trainees and each group is assigned to a teacher educator who provides guidance and ensures that the group follows the schedule.

KA I - QA 2 - QI 3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

KA II - QA 5 - QI 13:

The institution has evolved its own process of induction thought out every year, and takes place at the commencement of the programme.

KA VI - QA 22 - QI 62:

The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.

Sample Schedule

- Day 1 Orientation to microteaching (what, why, how).
- Day 2, 3 & 4 Introduction to various teaching skills along with simultaneous telecast of video recorded micro lessons.
- Day 5, 6 & 7 Demonstration of various skills by the teacher educators (Video recording of the demonstration of skills by the teacher educators).
- Day 8 to 10 Training in writing of episodes for micro lessons.
- Day 11 to 17 Practicing of teaching skills by the student teachers (Video recording of the micro lessons).
- Day 18 to 20 Telecast of recorded macro lessons followed by practicing of macro lesson using integration of teaching skills by the trainees (Video recording of the lessons).
- Day 21 & 22 Preparation of microteaching files.
- Day 23 Submission of microteaching files.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

Micro lessons which have been video recorded during the previous years are relayed to the trainees during the theory session. This integration of theory and simultaneous demonstration

of skills enables the trainees to have a better understanding of the various skills. This is followed by live demonstration of the skills by the teacher educators. These lessons are also video recorded. Equipped with the knowledge of both theory and demonstration the trainees carry out the micro lessons, which are recorded. The recorded micro lessons are burnt into CDs and shown to the trainees. These recorded micro lessons are also used for giving feedback and evaluation. Microteaching files wherein the trainees write in brief about their understanding of microteaching along with all the episodes of micro lessons and the observation schedules filled in by them during the course of micro lessons transacted by their peers are submitted for evaluation. Based on their actual performance and the microteaching files the trainees are evaluated. Some of the recorded micro lessons of one academic year are used as exemplars and non-exemplars for conducting Microteaching Workshop for the consecutive academic year. All teachers are involved in the process. Their demonstration lessons are freely discussed. The technology integration in teacher preparation is also demonstrated to students. Through this they have opportunity not only to observe this but also gain hands on experience in operating gadgets. On the whole, student teachers are ready with basic understanding of designing instruction as well as with the required competence and confidence to execute their designs in classrooms.

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

KA III - QA 8 - QI 24:

The mechanism employed for gathering, consolidating and disseminating evaluation data reflects fairness and transparency.

The Resources

Trained teacher educators need to have a sound knowledge of teaching in terms of skills, wholistic view of teaching and an openness to appreciate the fears and confusions of beginners. Digital Video Camera, Public Address System, Computer, CD Writer, CDs, MP3 Player, Multimedia Projector, Sufficient number of well equipped classrooms in order to carry out group work simultaneously are some of the major resources required for effectiveness of the practice.

KA II - QA 6 - QI 17:

The staff and students have access to technology and information retrieval on current and relevant issues.

The Impact/Outcome

These recorded micro lessons are used to

- ◆ Give feedback to the trainees and help them improve.
- ◆ Enable the trainees to observe the micro lessons of peers.
- ◆ Empower the trainees to take macro lessons with confidence during their teaching practice.
- ◆ Scope for improvement on part of trainees and innovations on part of teacher educators as they watch the recorded micro lessons.
- ◆ Strengthen the program of practice teaching.

KA V - QA 16 - QI 46:

There are evidences to show that feedback is used for development

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

The advantage of microteaching in particular, for the trainee is that it reduces the complexity of teaching situations. It focuses on controlled practice of specific skills rather than on vague, generalized practice of all skills simultaneously. It gives systematic and specific feedback to the trainee on her performance with opportunities for immediate practice and improvement in each teaching skills. The trainees are well equipped to take macro lessons in the real classroom situations with confidence, ease and fluency.

KA V - QA 16 - QI 45:

The institution has a comprehensive feedback system in place through which relevant data/information is collected and collated.

KA II - QA 8 - QI 25:

The institution employs ICT extensively in assessment and evaluation activities of the programme.

Requirements for Adoption and Adaptation

It is significant to recognize that if the institution as a whole, and the management in particular, are not committed to such an initiative, it probably would not be possible to establish or maintain the initiative. Secondly, the development of a schedule and continual monitoring of activities against the schedule is imperative for the implementation of such an initiative. In a one year TE programme time constraint is a major hitch, which can be solved by better time management strategies and simultaneous conduct of activities in small groups. Thirdly, streamlining all groups to go in a similar and coordinated manner is essential for the implementation of the initiative. Finally, for effective continuous quality monitoring, regular feedback of the Workshop is to be given by the trainees so that effective changes can be carried out.

The Use of Mobile Phone Technology for Student Support

Johan Hendrikz

Jeanne-Marie Viljoen

Editors' Note

This case study addresses the issue of student support in developing nations, where ICTs are limited or unavailable. It is an effort in the Key Area (KA) III Research, Development and Extension, Quality Aspect (QA) 10 Research and Development-(QIs 30,31&32), KA IV Infrastructure and Learning Resource-QA 13 Institutional infrastructure (QI 37), KA V Student Support and Progression - QA 15: System efficiency (QI 41 & 42), QA 16 Feedback Mechanism (QIs 44, 45 & 46), QA 17 Diagnosis and Remedial Programme (QI 47 & 48) and KA VI Organisation and Management -QA 21 Internal Coordination and Management(QI 58).

The Institution

The University of Pretoria (UP) was established in 1908. It has more than 51,000 students and is the largest and most comprehensive residential and research university in South Africa. Its Faculty of Education is the largest face-to-face faculty of its kind in this country. The Unit for Distance Education was established within the Faculty of Education in 2002. This Unit offers two undergraduate programmes and one postgraduate programme for in-service teachers who want to upgrade their qualifications.

Given the reality of Africa and the students' lack of access to the Internet, these programmes are predominantly delivered through print-based learning material with limited face-to-face contact sessions. The programmes were specifically developed to suit the requirements of teachers in rural communities in Africa. Since inception in 2002, more than 2,800 teachers have graduated from these programmes. In 2006 more than 10,000 teachers were enrolled in these programmes. Seventeen academic staff members of the Faculty of Education and approximately 170 tutors are involved in the academic component of the programmes.

Objective of the Practice

The availability of mobile phones and their access to students prompted the Unit for Distance Education to embark on a comprehensive project to optimise the possibilities of text messaging (SMSs) to enhance the quality of administrative and academic support to the enrolled students.

Most of the students (98%) have mobile phone access and as of 2006 the three GSM networks in the country covered more than 71 percent of the urban and rural SA population. (http://www.cellular.co.za/stats/statistics_south_africa.htm).

Need Addressed and the Context

The harsh realities with regard to the availability of computers in deep rural South Africa and other African countries and the challenges faced in making computers available have shaped the Unit's e-learning strategy. The significance of adopting faster means of communication in ODL systems is well established. In African countries where the conditions are not yet conducive to wider adoption of technologies, multipurpose hand held devices such as the PDAs and mobile phones have greater accessibility than the Internet and the computer. This fact led the unit of DE to explore the possibility of utilizing the small screen and micropads of the mobile phone in providing student support. The analysis of the technology profile of students of distance education also revealed that by May 2006 more than 98 percent of the students possessed mobile phones as opposed to 16 per cent who had access to computer and lesser than 2 percent access to Internet.

Description of the Practice

There are three approaches that an institution can follow regarding the use of SMSs for student support. These are a "push" approach, a "pull" approach and an "interactive" approach. None of them is mutually exclusive and the boundaries between the approaches are sometimes blurred. Towards the end of 2002, the Unit started to send general administrative messages, in bulk, to students. These messages addressed issues such as - due dates for submission of assignments, announcements regarding examinations and the despatch of learning material. These messages made use of the "push" approach.

In 2003, discussions with the internal programmers of the University's Mainframe Computer started regarding the development of a program for the Unit, which would enable it to personalise the large bulk number of SMSs. This involved linking the Unit's SMS messages for alerting students on the materials mailed and quoting their personal post office tracking number. The challenge was to link the student number by default to a pre-set message, import the postal tracking number into the message and send it automatically via the mainframe system to the student.

KA III - QA 10 - QI 32:

The institution adopts policies and strategies for adequate technology deployment and uses it for learning enhancement.

Right from the start, the position taken has been that the SMS support to students should be integrated into the existing systems and processes of the University. Using SMSs on an ad hoc basis and manually, although possible, is not advisable. The SMS interventions have to be planned carefully, the messages developed with great care, diarise the fixed SMSs in the year planner and budget expenses properly. Academic and administrative staff members have, over the years, come to perceive SMSs as a very useful tool and have become highly creative in the use of SMSs because of the benefits that they perceive they hold for their students.

One needs to make sure that the general bulk SMSs are only a confirmation of what has already been communicated to students by other means (in our case usually also in print). Whenever a new, ad hoc message via SMS or a message that the student *must* receive is communicated, telephone or written follow-up (depending on the time frame) is essential. It is important to apply the basic communication principles in the construction of SMSs. This means, for example, identifying the target group, analysing the essence of the message, being clear, using the right words and so on. It is obvious that SMS messages can never replace personal letters or telephone calls. There are, however, instances where SMSs are the best way of communicating. There is no more cost-effective way (excluding e-mail) to communicate with students. It is quite clear from the responses of the students and student feedback after SMSs, that students perceive this type of support as valuable and helpful and that they expect the University to use it.

KA V - QA 17 - QI 47:

Concern for development of students is reflected in the student monitoring system which is in place.

KA V - QA 16 - QI 45:

The Institution has a comprehensive feedback system in place through which relevant data/information is collected and collated.

One of the aspects dealt with carefully was the facility for students to use SMSs to communicate with the University. The Unit was aware that if it could not deal with the large-scale use of SMS messages from students, this facility should not be introduced. At present, it has been decided to introduce a system in which students can send messages on select issues to the Unit which could be responded to immediately. This makes use of the “pull approach” mentioned at the beginning of this section.

A pilot project making use of the pull approach and allowing students to register for contact sessions via SMS started in April 2006 and continued until July 2006. The results will be evaluated during the rest of 2006 and if promising, this approach will be phased into the programme and used for a number of different applications. The Unit for Distance Education

was so encouraged by the positive responses and feedback of students with regard to the administrative SMSs that discussions on the possible use of SMSs for academic purposes were started early in 2004.

KA V - QA 16 - QI 46:

There are evidences to show that feedback is used for development.

In these initial discussions, the Unit for Distance Education identified possible SMS interventions that included: SMSs that could direct students to specific parts of their learning materials to support them in the completion of assignments and in achieving outcomes, SMS multiple choice quizzes and IVR (interactive voice response) audio messages on specific topics that could be listened over the phone as mini-lectures.

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

It was accepted that although these SMSs were academically orientated, they were not teaching and learning tools in the true sense of the word – at least not initially. These were tools to support teaching and learning. Plans are afoot to expand these academic messages into deeper learning tools through the use of collaborative learning tasks rooted in a constructivist teaching methodology. The Unit took the position that if such tools could do the following, then they are a mechanism to support teaching and learning and their possibilities have to be explored.

- ◆ Direct students to important pages in their learning materials.
- ◆ Create the perception that the University is supporting them with their learning.
- ◆ Create a perception that the lecturer is “closer” than the geographical distance between learner and lecturer.
- ◆ Give the student the opportunity to ask academic questions via SMS and to get a response.
- ◆ Listen to the lecturer giving a “mini-lecture” on a difficult concept.
- ◆ Motivate the student to work diligently.
- ◆ Help students to structure their studies.
- ◆ Make them feel they are not alone in their studies.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

KA III - QA 10 - QI 31:

The institution not only has the practice of appraising its work through in-house research, but also undertakes formal sponsored research projects relevant in institutional and national contexts.

In October 2005 the Unit launched the third research project for the use of SMSs for academic purposes. In this third stage, the performance of the experimental group of students who received six academic SMS learning tools during each of their learning cycle will be evaluated against the performance of a control group, who do not receive these SMSs. This research will run over a period of 18 months (three learning cycles).

The Resources

In an environment where students have limited access to ICTs except for cell phones, SMSs becomes the most cost-effective way to communicate with students.

The University has negotiated a deal with a service provider for the sending of bulk SMSs. At present, the cost of these SMSs is almost 50 per cent lower

than for normal SMSs. These SMSs cost only 10 per cent of what a similar letter would cost. Furthermore, the impact on human resources is very limited. Once a message has been constructed, one person from his/her desktop computer can, in a minute or so, extract all the numbers of the SMS receivers from the mainframe and

send the message either directly to the students' mobile phones or to the service provider who will send it to the students. The software to perform this function was made available free of charge by the service provider.

The development work for the administrative SMS system was done by internal programmers. They wrote a program for the mainframe to personalise the bulk SMSs. If we had to contract outside programmers to do this work, the cost would have been substantial. The University has also entered into an agreement with a private service provider that allows the University 2,00,0000 "free"-sponsored SMSs each year. These sponsored SMS providers allow the University to send out a free SMS, on condition that the university uses only 80 of the available 160 characters. The remaining 80 characters are used by sponsors for advertisement purposes. However, at present, this system is not used by the Unit for Distance Education, because all the 160 characters are needed for most of the messages and thus do not serve the purpose.

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilized on a regular basis.

The Impact/Outcome

- ◆ The unit for Distance Education has been performing above average in both the areas

of throughput and drop out. Nearly 4000 students have graduated from these programmes since their launch. In the ACE programmes of the Unit, the average throughput rate for completion in the minimum time is 37 per cent. Accordingly, it is expected that the throughput rate for completion in the maximum period of time for the ACE programmes to be over 60 per cent, whilst the average drop out rate in these programmes to be only 5.5 per cent. The reasons for the drop out rate are assumed to be mainly financial, since the learning system is truly open and flexible with reference to time, enrolment and examination constraints, which often constitute barriers to learning in a f-2-f system but are less in open systems.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

KA V - QA 15 - QI 42:

The reasons for dropout are acceptable and the dropout rate of the programme is well within the expected limits.

- ◆ It is believed that the success of the effort is largely due to the thorough and integrated approach adopted for learning support systems design. Two particular innovations in the learning support systems are: student learning support via *mobile technology* and the flexible *academic model*.
- ◆ It is significant to note the exemplary initiation of use of appropriate technology to reach out to mainly the disadvantaged students in remote, rural and marginalised communities throughout SA and the way it contributes towards making some of the millennium goals a reality.
- ◆ Once the Unit for Distance Education started using SMS technology, measurable improvements in administration were recorded. It has also contributed to more efficient interactivity with students at lower cost. The use of SMS technology was expanded only to some carefully monitored areas. The present experience has revealed further marked improvements in administration due to increased and more efficient interactivity with students.
- ◆ From a quality service and financial point of view also, the success has been significant. This is evident from the following
 - Using print and the postal service to distribute to the learners the necessary information contained in the SMSs would have been 20 times more expensive than bulk SMSs.

- While the SMSs provide immediate and just-in-time information, the posted information would have taken between 3 to 18 days to reach all the learners, depending on the remoteness of the learner.

- ◆ The Unit for Distance Education evaluates the service delivery to students twice a year via questionnaire. The number of responses received from students each time ranges from 3000 to 4000. It is clear from the responses to student feedback questionnaire and the responses obtained after sending SMSs, that students perceive this type of support as valuable and helpful and that they, in fact have come to expect the University to use it.

KA V - QA 6 - QI 44:

Institution values feedback and is responsive to feedback not only from within but also from schools and other external stakeholders.

- ◆ The Unit for Distance Education is in the process of piloting a more sophisticated questionnaire to evaluate the SMS support more scientifically. This questionnaire includes questions on how students use text messaging, what their feelings are when receiving text messages, for what purpose they use text messaging, when they read SMSs and whether they save their SMSs. This questionnaire was used for the first time in July 2006.

KA V - QA 16 - QI 45:

The institution has a comprehensive feedback system in place for which relevant data/information are collected and collated.

- ◆ Although mobile phones will not replace computers, it is felt, there is enough evidence emerging that they significantly support administration, teaching and learning in distance education to warrant serious exploration of the possibilities they themselves offer.

Requirements for Adoption and Adaptation

There is no perfect student support instrument. All instruments that the UP uses have their pros and cons, whether they are the Internet, interactive television or radio. It is the responsibility of institutions to identify and optimise the most appropriate mechanisms for student support within their context. Some disadvantages of SMSs and usage patterns regarding mobile phones that need to be borne in mind, managed correctly and overcome are:

- ◆ If the phone is switched off the service provider will eventually remove the message from the system.
- ◆ The student could lose his/her phone.

- ◆ The student could change his/her number.
- ◆ The message could be opened by a family member or friend and not conveyed to the intended recipient.
- ◆ The student might just not read the message.
- ◆ The message may, for some reason, get lost in cyber space.
- ◆ Some students do not know how to read an SMS. (In the present case, it happened that students complained that they did not receive the full message. The problem was they did not know how to scroll down).
- ◆ The message could be misunderstood by the student.

There are, however, also very positive benefits in the use of SMSs.

- ◆ They are immediate ie., they serve as instant messages.
- ◆ They are received by a student as a *personal* message to him or her.
- ◆ They carry an image of authority and importance.
- ◆ Students tend to take the message seriously.
- ◆ Students react almost immediately, if requested to do a specific task.
- ◆ They are by far the cheapest way of communication.

Curriculum Improvement in Teacher Education through Research

S. Kumar
R. C. Patel

Editors' Note

The two main functions of a University Department i.e., teaching and research, which meaningfully supplement each other contribute to quality enhancement of the programme. In doing so the institutional functioning in this case study reflects the following major Key Areas (KAs), Quality Aspects (QAs) and Quality Indicators (QIs)- KA II Curriculum Transaction and Evaluation - QA 7 Transaction of Practical Experiences (QIs 18 &19), QA 8 Assessment and Evaluation (QI 23) , KA III Research, Development and Extension- QA 10 Research and Development (QIs 29,30 &31), KA V Student Support and Progression-QA 16 Feedback Mechanism (QIs 45 & 46), QA 17 Diagnosis and Remedial Programme (QIs 48 & 49).

The Institution

The Centre for Advanced Study in Education (CASE) is a constituent unit of the Faculty of Education and Psychology of The Maharaja Sayajirao University of Baroda, Vadodara, India. As per the vision of the then progressive king of Baroda, Maharaja Sayajirao III, it started as a Secondary Teachers' Training College in 1935, even before the establishment of the University in 1949. Ever since, it has been in a leadership position in the field of teacher education in India and has to its credit the establishment of a research tradition in the discipline of Education. In the year 1962, the Maharaja Sayajirao University collaborated with the University of Michigan, USA and the link led to the establishment of a Centre for Research and Training in Secondary Education (CRTSE) under the joint sponsorship of the UGC. In the year 1963, the Department of Education was raised to the status of Centre for Advanced Study in Education (CASE) by the UGC and till date it is the only institution in India with this special status. The academic programmes offered by CASE are: Bachelor of Education (B.Ed.), Master of Education (M.Ed.), M.Phil. and Doctor of Philosophy (Ph.D.). The Institution admits 180 B.Ed. and 30 M.Ed. students every year. In 2006, 20 Research Scholars were registered for working for their Ph.D. degree. About 30 per cent of the enrolled students are from socially and economically under privileged communities. The CASE has 25 academic staff of which 70 per cent have doctoral degrees. In addition to guiding Ph.D. and M.Ed.

students, they are also actively involved in individual and institutional research projects.

Objective of the Practice

The CASE has been engaged in activities aimed at improving the quality of instructional process in the teacher education programme both at the bachelor's and post-graduate levels. Towards this, efforts were made to develop instructional strategies in a research supported manner which could improve all aspects of the academic programmes. The basic intent was to develop comprehensive and effective strategies that help develop teaching skills and competencies, improve the practice teaching programme and the instructional process in theory courses. The research endeavor in the area of education technology pertained to development and validation of PLM on varied themes, adoption of Modular Approach and Multimedia

KA III - QA 10 - QI 29:

Teachers explore better ways of functioning and build upon their experiences systematically.

KA III - QA 10 - QI 31:

The institution not only has the practice of appraising its work through in-house research, but also undertakes formal sponsored research projects relevant in institutional and national contexts.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

Approach aimed at improving the instruction in theory courses at B.Ed. and M.Ed. levels. Instructional modules in the Methodology of Educational Research were developed in which several staff members from CASE and experts from other educational institutions were involved. This was aimed at improving quality of instruction at M.Phil. and Ph.D. levels. Out of several practices one of the 'best practices' has been the "Development of an Instructional Strategy" for teaching the Educational Evaluation course at B. Ed. Level.

Need Addressed and the Context

Efforts to improve teacher education through research have consistently formed an important part of research endeavor at CASE. In early seventies, it was felt that attempts should be made to apply research know how for developing innovative practices in the teacher education programme. Initially it was considered that the B.Ed. programme of the Centre itself should be used for applying the research out put and developing innovative practices in TE. Underlying intent was to evolve and implement training inputs which had demonstrable impact on the effectiveness and

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.

KA I - QA 4 - QI 11:

The institution undertakes curriculum revision on a regular basis in the form of continual deliberations on its substance, adequacy and updatedness.

efficiency of the on going programme of teacher preparation at CASE. It was decided that necessary research and development activities be initiated to evolve an innovative approach to improve instruction in one theory course, i.e., “Educational Evaluation”. This is a compulsory course to be taught for one semester at B.Ed. level. The purpose of the project was not only to evolve and implement the innovative practice as a research exercise but also to adopt it as a part of regular instructional work at CASE. This necessitated that, the adoption of the innovation should have its roots in the available research know how in the institution and also utilize the outcomes of research studies carried out especially at the centre. So it was decided that the practices would be evolved through a series of research and development activities at CASE and to start with the use of existing information.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

Description of the Practice

The course on Educational Evaluation is compulsory in the B.Ed. curriculum. It has two broad objectives viz., (i) imparting basic knowledge on educational evaluation: educational evaluation and measurement, characteristics of good instrument of evaluation, major tools of evaluation and their uses, teacher-made achievement test, and elementary statistics in education; (ii) developing certain skills of evaluation, such as stating instructional objectives in behavioral terms, preparing blue prints for tests, developing test items, etc. The evaluation scheme consists of periodical tests and a comprehensive test at the end of the semester.

KA I - QA 3 - QI 7:

The operational curriculum content is designed in such a way that it has adequate inputs for development of attributes expected in a school teacher.

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

To realize the objectives, an innovative instructional strategy was evolved comprising Programmed Learning Material, Library Work, Practical Work, Discussion Sessions, Unit Tests, Feedback on the achievement and Remedial Instruction. In order to impart the basic knowledge required for the course ‘Educational Evaluation’, a research study was undertaken to develop and study the effectiveness of the Programmed Learning Material (PLM) in linear form. The PLM was developed following the usual steps prescribed for preparing a valid programme. The first

KA V - QA 17 - QI 47:

The concern for the development of students, is reflected in the student monitoring system in place.

draft of the PLM was edited by an expert from the point of view of content, language, as well as programming principles. The edited PLM was tried out on a group of B. Ed. students. Errors committed by the students on the programme frames and the criterion

KA IV - QA 14 - QI 39:

Teachers seek to gain professional development through participating in in-house discussions and professional fora.

tests were analysed. Based on the error analysis and the suggestions offered by the students regarding the language, frame sequence, and ease of understanding, the programme was revised. The revised PLM was validated by comparing the results of learning through the PLM and the lecture method. The validated PLM was found to be feasible and resulted in significantly superior in students' achievement in two units. In the next phase, the integration of the four components, viz., PLM, Discussion, Library Work and Practical work as the instructional strategy and the study of its effectiveness in providing instruction was tried out. The result of the study clearly indicated that the enrichments brought into the instructional work by including the components Library Work, Practical Work and Discussion, and integrating them with the use of PLM, positively influenced the achievement of students. These efforts resulted in concrete outcome in the form of a hardware package of Auto-Instructional Material in the course, "Educational Evaluation". Thus, the finalized instructional strategy was institutionalized in the B.Ed. programme initially in the following sequence:

- I. Student Teachers reading the PLM
- II. Classroom instruction
- III. Practical work suitable to the content of unit
- IV. Discussion Session
- V. Unit Test
- VI. Feedback on the basis of students' performance in the unit test

During the actual implementation of the process, it was necessary to ascertain the development of unit tests, the timely assessment of the learning outcomes and provision for immediate feedback. These were addressed by using the information from research studies and simultaneously to develop the Question Bank in 1976, 1977 and in 1984. This helped in the timely preparation of unit tests, periodical tests and comprehensive test. However, timely assessment of the learning outcomes and feedback needed to be ensured. For this, additional faculty members were involved which was not

KA V - QA 16 - QI 45:

The institution has a comprehensive feedback system in place for which relevant data/information are collected and collated.

KA V - QA 16 - QI 46:

There are evidences to show that feedback is used for development.

institutionally very easy. During early 1990s, it was decided to include only objective type items in the tests. This has helped in faster assessment and immediate feedback. However, this encouraged malpractice among students and also the questions did not measure certain higher learning objectives including certain skills of evaluation envisaged during implementation. During the years 1995-96 the tests were made more comprehensive by including short answer questions and items measuring skills and application ability. The Question Bank was further strengthened and different forms of tests were prepared to avoid malpractices by students. In the year 2000, self evaluation by students on the unit tests was introduced where answer keys were provided by the teacher concerned. This enabled faster announcement of result and provided immediate feedback to the students. As it involved students in the evaluation process it provided practical experience of evaluating answer sheets. Self-evaluation for some students was less satisfying. In the year 2003, it was changed to peer-evaluation. The relationship between peer-evaluation and faculty members' evaluation was systematically studied. Results indicated high positive correlation between the two. Since 2004, specific feedback is provided to the students with the help of error analysis and remedial instruction is added in the instructional strategy.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and include experiences in performing various functions of a teacher.

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

KA V - QA 17 - QI 49:

Institution plans and provides additional value added courses in relevant areas of specialization and remedial programmes as per the requirements of students.

The Resources

It requires a copy of the Auto-Instructional Material (also referred to as PLM) for each learner, question bank and different forms of the question papers for unit tests, periodical tests and comprehensive test. In addition to this, it also requires orienting the learners regarding the instructional strategy and its organisation for which professionally trained competent and committed staff with inclination to research is a mandatory requirement. In addition, institutional ethos to try academically relevant practices and the freedom to critically appraise the effort is crucial to try out such practices. Needless to say a good library, a meaningful liaison with schools and appropriate academic time scheduling within the programme are necessary.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

The Impact/Outcome

The main outcome of this research and development activity is the availability of a scientifically developed instructional strategy with suitable software material which is effective and feasible for instruction in the course 'Educational Evaluation'. It has brought qualitative improvement in the instructional process in the area of teacher education. It has not only enhanced students' achievement but also developed positive attitude of learners towards the strategy. It is worth mentioning that B. Ed. students are requesting to adopt similar strategy in other courses too. This practice is but one example of how an institution has successfully evolved internal processes to sustain meaningful links between and among its various functions, especially research and teaching.

Requirements for Adaptation and Adoption

In order to implement this instructional strategy in the TEIs specially those which have Educational Evaluation course at B. Ed. level and similar curriculum, they can adopt the same by developing the Auto-Instructional Material, question bank and different forms of the tests. It also requires an orientation of the teacher educators to know how exactly the strategy is to be carried out. A better way would be to observe and participate in the instructional process in institutions already attempting such a practice and then adopt the strategy in ones' own institution. Where curriculum differs, the instructional material for additional units could be developed through research and development activities by the individual institution. Those institutions which do not have scope for research may collaborate with other institutions using similar processes/practices. Such efforts will improve the quality of teacher education not only at national level but also at international level.

Quality Processes and Institutional Sensitivity

P. Venkataramaiah

Editors' Note

Quality concerns within an institution irrespective of it being a college or a larger unit such as a university, are addressed through certain activities undertaken. This feature becomes visible even to an external peer reviewer. The case study presents four effective practices - 2 in colleges of education and 2 in a university, as seen by an external peer reviewer. These practices address to all Key Areas (KAs), viz., KA I Curriculum Design and Planning – QA 4 Curriculum Revision (QIs 10 & 11), KA II Curriculum Transaction and Evaluation- QA 7 Transaction of Practical Experiences (QI 18 & 19), QA 8 Assessment and Evaluation (QI 23), KA III Research, Development and Extension- QA 10 Research and Development (QIs 29, 30 & 31), KA IV Infrastructure and Learning Resources- QA 14 Human Resource (QI 39), KA V Student Support and Progression- QA 16 Feedback Mechanism (QIs 45 & 46), QA 17 Diagnosis and Remedial Programme (QIs 47,48 & 49) and KA VI Organisation and Management- QA 21 Internal Coordination and Management (QI 57).

Introduction

The process of quality improvement is an inbuilt aspect in an educational institution. Discernment of possible ways to enhance the impact potential of one or more aspects of its functioning enables any institution to address itself to quality concerns. External review visits to several teacher education institutions and review of institutional activities have enabled the identification of several such quality processes generated through specific institutional activities. A few examples of such practices are worth noting and are described hereunder briefly.

Practice A

Addressing Societal Issues through Institution - Community Linkage

The Institution

The Acharya Jawadekar College of Education (COE) at Gargoti in Kolhapur District of Maharashtra, established in 1946 by the great educationist Dr. J. P. Nayak, has a laudable objective “Rural reconstruction through Education and Education through Reconstruction”.

This college is affiliated to Shivaji University, Kolhapur. It is located in a hilly area inhabited mostly by tribal population.

Need Addressed and the Context

A college of Education being an institution to train the future teachers has to have a community engagement component and is assessed for quality under the “Research Development and Extension”. The geographical location and the societal context in which the institution is functioning and the students it admits makes it more pertinent for the institution to contribute to the community, as to mutually benefit each other. Through community engagement the institution attempts to sensitize the student teachers to societal issues and also addresses local issues.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and include experiences in performing various functions of a teacher.

Objective of the Practice

Apart from several programmes to foster institution community networking, Acharya Jawadekar College of Education aimed at evolving a novel and significant method of eliminating obscurantism among the rural and tribal folk.

Description of the Practice

Some of the rural folk have developed “Jata”, the thick knotting of hair on the head. These people nurture wrong belief that it is God’s gift and they should not trim or cut hair. They do not wash the hair on the head. This belief is prevalent in almost all parts of India mainly among the illiterate rural folk, both men and women. The Acharya Jawadekar COE has made an effort to go frequently to the villages where such people live. The staff and students, through constant interaction, have been able to win their confidence and convince them that it is some disorder and has nothing to do with God’s wish or desire. After successfully convincing them the student teachers of this college were able to wash the hair of those persons using soap or shampoo and trim the hair. The important thing to notice is the ability of the students and teachers to eliminate the obscurantism prevailing among the illiterate tribal people. This is in tune with the objectives of National policy on Education 1986, which aims at the elimination of obscurantism, fanaticism and superstition among the people. The college is continuing this programme in addition to organizing blood donation

KA I - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and is compatible with the regional, national and global expectations.

camps, AIDS awareness and environmental awareness programmes. Through this novel attempt, the Acharya Jawedekar College of Education has adopted a useful need based activity and thereby established a close linkage with the community.

The Impact/Outcome

This “*Institution-Community Linkage for Addressing Societal Issues*” has enabled the student teachers to get an opportunity through the community service to work with underprivileged sections of the society that helps not only in personality development but has also sensitized them to the need for community engagement and developing of motivational skills.

KA III - QA 11 - QI 33:

Learning activities have a visible element for developing sensitivities towards community issues, gender disparities, social inequity, and similar activities.

Pracice B

Comprehensive School Based Experience

The Institution

The Smt. Kapila Khandvala COE, Santacruz, Mumbai was established in June 1962 by Sadhana Education Society and is affiliated to the University of Mumbai. The college has 11 faculty members, two of them with Ph.D. and six with M.Phil. degrees. The institution offers 1) Computer programme, 2) Global ITE, 3) Yoga training and 4) First aid programmes. The college principal is a recipient of the ‘best college teacher’ award. The student teachers of this college under the guidance of a teacher educator regularly visit a school for the mentally retarded and physically challenged students.

Need Addressed and the Context

Since 1970, the Government of India has adopted an educational policy aimed at helping the students with disability to integrate them with the main stream as far as possible. In fact the Dakar declaration of Education for All (EFA) to be achieved by 2015 is inclusive of children with disabilities and their education in the main stream programmes. This requires that pre-service teachers have to get an overview of the education of children with disabilities, their learning characteristics, methods of instructional strategies and evaluation procedures. *Sarva Shiksha Abhiyan* is also aimed at reaching the unreached disabled children. Further to providing a comprehensive school based experience the college involves its student teachers in various activities reaching out to community needs.

Objective of the Practice

To provide comprehensive experience and prepare teachers to effectively deal with issues of national relevance included in the educational policy such as diversity, inclusive education, and quality access.

Description of the Practice

a) *Inclusive Education*

As a part of providing a comprehensive school based experience the student - teachers regularly visit special schools and work with children with disabilities. The accompanying teacher provides the required guidance and necessary inputs for sensitising the students to the special needs of the challenged children. Through this activity the student teachers get familiarization of the learning characteristics of the challenged students. They acquire skills to prepare appropriate teaching aids and also learn the teaching learning strategies specific to the needs of the challenged students. The student teachers get a comprehensive experience in performing various functions of a teacher. This type of association also helps the student teachers to acquire abundant compassion and love towards the children with special needs. It is a very successful experiment attempted and sustained by the College at Mumbai as observed during press review.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulate practice.

b) *Community Reach Programmes*

Smt. Kapila Khandvala COE has also adopted a novel method of associating the student teachers with a group of civil rights activists who bring the street and slum children in Mumbai to the main stream learning programme. This group of street children belong to multi grade and multiage group. The student teachers of this COE who participate in the teaching of this group of children acquire good and useful skills in developing teaching material for such a heterogeneous group of children. This type of familiarity to the student teachers will be highly helpful when they are appointed as teachers in such a situation especially in rural India.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also their other roles.

The Impact/Outcome

These programmes through which teacher trainees get comprehensive experience for performing various functions of a teacher, aid in quality improvement through new initiations. This practice of providing a “*Comprehensive School Based Experience*” has resulted in teachers who showed exemplary performance in classroom situations while dealing with issues of diversity and access. They could handle classrooms with in the diverse children needs and multigrade situations more effectively than other teachers who have no exposure and understanding of such situations.

Practice C

University - Community Linkage for Addressing Societal Issues

The Institution

The Kuvempu University was established by the State of Karnataka in 1987 in a forest environment about 25 kms from Shimoga, which is a district head quarter. The University has 145 affiliated colleges in four districts (rural location) and offers 27 post graduate programmes on campus.

Need Addressed and Context

In spite of several programmes and concerted efforts by the Government of India and many NGO’s since Independence it has not been possible to achieve 100% literacy in the country. Inspite of all the efforts almost 40% of the population remain illiterate and there is an urgent need for the system in general and institutions in particular to address this issue.

Description of the Practice

The student group entering the University for the undergraduate programme is in the age group of about 18 years and is they are highly enthusiastic to involve themselves in social service activities. Taking advantage of this Kuvempu university adopted a programme, through a Regulation approved by the Academic Council of the University, wherein the students joining B.A., B.Sc., B.Com. and other first degree courses including B.Ed. should take up the responsibility of making literate a minimum of two and a maximum of five youths. After proper evaluation of the work done by the students a maximum of 05 marks was awarded for their effort,. the marks are given for each illiterate becoming a literate. These marks can be earned by the student each year for all the three years of the degree programme. In principle each student can earn a maximum of 75 marks during the three years of their study. The marks thus

earned are given a weightage for the admission of the students to the Post Graduate Courses. This programme has enthused the students so much that some students volunteered to make more than 05 illiterates become literates without aspiring for more marks. It has also helped sensitizing the University students for societal issues. There could be a wide range of activities that can be taken up by the educational institutions under extension. The Literacy programme adopted by Kuvempu University can be one such , since it is need based and meets admirably the societal needs.

The Impact/Outcome

This best practice can be regarded as “*Institution –Community linkage for Addressing Societal Issues*”. The students have taken up this work with a sense of dedication and social commitment. The programme that is initiated and continued by Kuvempu University is being adapted by other Universities in the State of Karnataka.

Practice D

Multi-disciplinary Research : An Innovative Research Practice

The Institution

The Kuvempu University established in 1987 is a State University located in Shimoga. The University offers 27 postgraduate programmes on the campus. The curriculum of most of these 27 PG programmes has a multidisciplinary component and so also is the focus of the research activities of the university.

Need Addressed and Context

Now a days the research in any discipline or subject is extending beyond its boundaries and is becoming interdisciplinary or multidisciplinary in character. For example, the research in any branch of Physics will become meaningful only when there is interaction or collaboration with Chemistry or Biology. This is also true with other subjects including social sciences or humanities. This is a new emerging trend and hence there is a need to inculcate the spirit or culture of interdisciplinary approach among the faculty and research scholars in our Universities and Colleges.

KA III - QA 10 - QI 31:

The institution not only has the practice of appraising its work through in-house research, but also undertakes formal sponsored research projects relevant in institutional and national contexts.

Description of the Practitice

An effort made in Kuvempu University from 1998 in the direction of interdisciplinary research is worth noting. On the first Saturday of every month between 3 pm and 4.30 pm all the faculty members and research scholars of all the social sciences and humanities departments assemble together for a colloquium. Every department presents a colloquium on the research work

KA - II QA - 9 QI - 27:

Teachers take initiatives to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualise and carry out curriculum transactions according to the nature of the student group enrolled.

done in the department on a rotation basis. This has encouraged a Kannada literature person to approach and get research grant from ICSSR a research grant for taking up advanced research. Similarly on the third Saturday of every month during the same time slot all the faculty members and research scholars of all the science departments assemble for a colloquium to be presented on the research work done in each of the department on rotation basis. This has triggered a wonderful discussion among the participants helping them to be benefited by the type of research and the problem identified by other departments. It has encouraged a faculty member of Zoology to study the behavior of small frogs in relation to the changes taking place in the environment especially in the Sahyadri mountain belt close to the University. It has also enthused faculty members to take up coordinated research on biodiversity in the 3000 hectare Kuvempu Bioreserve located in the western ghats. The departments of Physics, Chemistry, Biology, Environmental Science, Economics and Sociology have taken up interdisciplinary research with the cooperation of the Department of Forests, Government of Karnataka, in this area and contributed to the developmental activities of the local area and community.

The Impact/ Outcome

The effort made by Kuvempu University for “Promotion of Innovative Research Practice” to encourage multi disciplinary research has contributed to the quality of research and the overall knowledge enhancement of the faculty.

The Resources

For all the four practices described above it is mainly the motivated faculty who are needed for effective implementation of varied supportive curricular activities like community services, activites pertaining to National Policies, Research and Innovation etc. The motivational skill is an important attribute which needs to be developed among the faculty and of course students as well for effectiveness of such practices.

Requirements for Adoption and Adaptation

Meeting the stated objectives and realising the mission and goals of the institution reflect on the quality provisions of the institution. The proper integration of the community engagement and social issues while designing and planning the curriculum is an important factor in such activities. Most programmes like the one year B.Ed. course have the time constraint and thus needs a thorough planning while including special issues.

School and Workshop Based Practice in Distance Teacher Training

Mohan Menon

Vibha Joshi

Editors' Note

The collaborative reflective practices provided at the TEI and in practicing schools for continuing professional development of in-service teachers (untrained) has been a successful programme of IGNOU, India for improving Teacher Quality. The activity aimed at improving Teacher Quality not only provided teaching competencies but also in all other activities related to school. The major Key Areas (KAs), Quality Aspects (QAs) and Quality Indicators (QIs) covered are : KA I Curriculum Design and Planning – QA 2 Process of Curriculum Design (QI 4), KA II Curriculum Transaction and Evaluation- QA 6 Transaction of Theory (QIs 14, & 15), QA 7 Transaction of Practical Experiences (QIs 18,19,20 & 21), KA III Research, Development and Extension- QA 11 Community Engagement (QI 33), KA IV Infrastructure and Learning Resources- QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resource (QI 38), QA 17 Diagnosis and Remedial Programme (QI 48) and KA VI Organisation and Management- QA 21 Internal Co ordination and Management (QI 58), QA 22 Academic Calendar(QI 63).

The Institution

The Indira Gandhi National Open University (IGNOU), one of the largest mega universities established in 1985 in New Delhi, India enrolls over 1.5 million students from 32 countries in 125 academic and professional courses. The University with a network of 64 Regional/Sub-regional centres and over 1500 study centres provides learner support services facilitated by around 40,000 surrogate teachers and local resource persons. School of Education (SOE), IGNOU undertakes academic tasks under two main areas - the practice of education as a profession, and education as a discipline. The School offers courses at certificate, undergraduate diploma/degree, post-graduate diploma/degree and doctoral levels for mainly in-service personnel in the education system and is also involved in research and extension activities.

Objective of the Practice

The “work and workshop based distance teacher training” aims at preparing professionally competent educators and reflective practitioners to carry out teaching and related activities in the classroom, school and the community. The case being presented here is the component of “School and Workshop Based Practice” including the practice teaching within the Bachelor of Education (B.Ed.) Programme for secondary teacher training. The Bachelor of Education Programme consisting of 48 credits (30 learning hours per credit) with a minimum duration of two years is offered with the objective of professional development of untrained working teachers/educators using open and distance learning mode while continuing to teach in their schools. The “work and workshop based practice” is a major component of the in-service teacher training programmes offered by the School. This is an effective component for developing professional competencies within ODL based courses and is an integral part of several programmes of the school for in-service training of primary, secondary and higher education teachers.

KA III - QA 11 - QI 33:

Learning activities have a visible element for developing sensitivities towards community issues, gender disparities, social inequity, and similar issues.

KA I - QA 2 - QI 4:

It is ensured that there is no mismatch between the visualized curriculum inputs and the envisaged duration of the programme.

KA II - QA 6 - QI 14:

The various courses of theoretical study are provided in order to develop an understanding and appreciation of teacher in a holistic educational perspective through dynamic learning experiences.

Need Addressed and the Context

“School and Workshop Based Practice” attempts to provide opportunity for trainees to interact and share their thoughts and experiences in group situations leading to collaborative reflective practice; apply innovative practices discussed in the theory in the school context and obtain feedback; have real experiences of various activities a teacher performs in the school and practice in simulated and real work situations; all these done with support and feedback from experienced teachers/teacher educators. Considering the large number of untrained teachers distributed all over the country to be trained ODL mode seems to be the most logical alternative as it allows teachers to get professional training and academic qualifications in a relatively cost-effective way without being away from work for long durations. However, its potential to develop the required competencies in the teachers is often questioned.

Description of the practice

The practice of school and workshop based practice was identified and planned as a cost-

effective and feasible model for providing the required practice to be a professionally competent teacher. In this component every trainee could have collaborative reflective practice through Workshop Based Practice (WBP) given in teacher education institutions and the School-Based Practice (SBP) in the schools where trainees teach or are attached.

KA I - QA 3 - QI 7:

The operational curriculum content is designed in such a way that it has adequate inputs for development of attribute expected in a school teacher.

The School Based Practice (SBP) including Practice Teaching is of 12 credits and the Workshop Based Practice (WBP) is of 4 credits making a total of 16 credits of practical experiences amounting to one-third of the total credits. SBP and WBP provide required competencies that are essential for planning, organizing and executing teaching-learning experiences as well as other school activities in a judicious and effective way. A Practical Handbook developed for this component provides all guidelines and support to the trainees, mentors and other resource persons. In addition to classroom teaching there are other activities performed daily, weekly or occasionally which include preparation of school time table, organization of annual day, sports day, examinations, science exhibition, debates, excursions/field trips, parent-teacher meetings, construction and administration of question papers and so on. Each of these activities is given credit wise weightage and a trainee has to select activities worth four credits under the supervision of a mentor who is a trained teacher from the same or nearby school. The selected activities are planned and performed by trainees in the school and a report on prescribed format authenticated by the mentor is submitted for assessment and feedback to the study centre.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also other roles.

Each trainee also plans and teaches a fixed number of lessons in two school subjects. A few supervised lessons with, feedback are provided and assessed by a panel of external resource persons specially assigned by the University from that region. Other lessons are planned and organized with support from the mentor. The WBP is organized during two 12 day workshops one in each year. Each day has four sessions of 90 minutes duration. The nature of activities could vary from small group interaction leading to collaborative reflection, individual and group practice, discussion of locally relevant issues, field visits etc. It is mandatory that each teacher trainee participates in all activities in the workshop. Each trainee gets opportunity

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

to practice a few teaching sessions in simulation, interact with peers and resource persons and experience collaborative reflection and also discuss a few issues in school education in a more intensive manner. Face to face interaction also helps students to get their doubts and queries about theory courses cleared. Trainee performance in each or cluster of sessions is assessed on different criteria through observation and testing by the workshop resource persons.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

The Resources

Successful planning and implementation of SBP and WBP requires a core team of teacher educators at the School of Education and also human and physical resources in the regional centres, programme study centres and the schools. Such resources are available in all regions in the country. All regional centres of IGNOU are well equipped with one faculty coordinating the activities of B.Ed. Campus based teacher education colleges offering pre-service teacher training are available across the country to become programme study centres providing the required physical facilities and human resources in organizing the WBP as well as monitoring the SBP. These colleges have enough experienced teacher educators with varied specializations whose services are obtained with affordable remuneration during weekends and holidays for organizing/monitoring SBP and WBP. Additionally retired teacher educators are available locally whose support is hired for supervising and monitoring SBP.

KA IV - QA 14 - QI 38:

Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilised on a regular basis.

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring the activities at different levels.

KA VI - QA 22 - QI 63:

The activities contained in the academic calendar are for optimizing effective and coordinated use of available resources.

As the number of students study centre is one hundred, the operational costs for this component can easily be met from the student fee. However, to maintain quality the number is restricted to 20-30 in each WBP. B.Ed. being a very popular programme most programme study centres have all the 100 students positions filled, making it fairly cost-effective.

The Impact/Outcome

The inclusion of school and workshop based practice in a distance teacher training programme is found to be critical in providing practical and practice teaching experience and group interaction to the trainees. Although contact classes are arranged in the study

KA II - QA 6 - QI 15:

The instructional processes are geared to develop of reflective thinking and practice both individually and in groups.

centres during week-ends to support the theory courses, not all trainees participate in these classes as they are optional. However, the SBP and WBP being compulsory to all, it provides an opportunity for students to interact with other

trainees, resource persons and the mentors. Thus, these experiences play a vital role in molding the professional competencies of untrained teachers. SBP is welcomed by the trainees as they can undertake these activities in

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

their own school. Mentors have a very critical role to play. There are guidelines for orienting the mentors but that seems to be inadequate. While the Practical Handbook does structure and maintain quality of trainee activities their performance can be further improved by better support from the mentors. The WBP is also very critical

to the success of the programme as it is during this workshop that the trainees get the opportunity to have group interaction and feedback from resource persons and peers.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

Requirements for Adoption and Adaptation

Adoption/adaptation of the B.Ed. programme including this practice must be done on the basis of the clientele's needs, contextual requirements, suitability of the activities, implementation plan and so on. One could use the practice of SBP and WBP and integrate to a training programme with required modifications. Implementation of the practice would however need certain requirements and resources. The institution should have an effective monitoring system in its head quarters supported by adequate core faculty and adequate physical and human resources in the regional centres. It is also expected that there are good teacher education institutions to perform as programme study centres with experienced teacher educators as resource persons. The schools where the trainee is teaching or attached are expected to take certain responsibilities to provide support to the trainees including mentoring. This practice especially when adapted in large countries, where, TEIs cater to large number of trainees, it should have a well evolved and effective planning and management system with a computer networked database and information flow among the learners and other personnel involved.

Impacting Teacher Empowerment through Internship

Vasant D. Bhat

Editors' Note

Internship is crucial in any professional education programme. In an institution catering to a wide geographic region with several cultural overtones, organizing internship in a field relevant way requires not only clear vision, planning and flexibility but also coordination and monitoring across institutions in varying cultural, economic and geographic contexts, and a great deal of liaison. These require teacher educators to be both technically sound as well as be aware of and sensitive to the varied contexts they deal with. The Key Areas (KAs), Quality Aspects (QAs) and Quality Indicators (QIs) covered in this case study are : KA I Curriculum Design and Planning – QA 3 Curriculum Content (QIs 8 & 9) , KA II Curriculum Transaction and Evaluation- QA 5 Induction/Orientation (QIs 12& 13), QA 7 Transaction of Practical Experiences (QIs 18, 19, & 21) QA 8 Assessment and Evaluation (QI 23) , KA III Research, Development and Extension- QA 11 Community Engagement (QI 34), KA V Student Support and Progression-QA 16 Feedback Mechanism (QIs 44 & 45), QA 17 Diagnosis and Remedial Programme (QI 48), and KA VI Organisation and Management- QA 21 Internal Coordination and Management (QI 57), QA 22 Academic Calendar (QI 67) , QA 24 Financial Governance (QI 67).

The Institution

Establishment of the Regional Institute of Education (RIE), Mysore (erstwhile Regional College of Education) by the National Council of Educational Research and Training (NCERT), New Delhi, in August 1963, was a landmark in the history of teacher education in Southern India. The RIE, Mysore is one of the five similar institutions run by the NCERT. Its teacher education programmes are unique in nature and are affiliated to the University of Mysore as 'RIE Scheme'. It is a fully residential institution with student hostels, staff quarters, guesthouse, dispensary, post office, bank, playfields, horticulture nursery, technology workshop, library, AV production studio, computer resource center, teaching aids center, exploratory lab, science park, laboratories in different disciplines, and botanical and zoological museum. Of its various teacher education programmes, the 8-Semester Bachelor of Science Education (B.Sc. Ed.), which is a four year integrated teacher education programme being offered since 1965 is an innovative programme of RIE. The programme is distinctly different from other teacher education programmes in terms of its organization, duration, entry level, nature and extent of theory inputs, and the internship.

With a total intake of 80, the students are admitted to the course from every State and Union Territory in South India, on a population based quota system, purely on merit. The admitted students have at least

KA V - QA 19 - QI 53:

The institution has an admission policy, which is appropriate, clear, inclusive and widely publicized.

prproficiency in at least one of the six different mother tongues and belong to a predominantly middle/lower-middle class socio- economic background. The Institute is fully funded by the Ministry of Human Resource Development, Government of India. For undertaking various programmes of school and teacher education, the Institute has about 50 academic and 150 non academic staff with more than 80 percent of the staff having a doctoral degree.

Objective of the Practice

Stated broadly, internship is an attempt not only for providing the first hand experience of teaching to a student teacher, but also provide an opportunity to perform all the roles of a teacher. It is an attempt at preparing a “total teacher”. Internship provides excellent opportunity for the prospective teacher to learn the art of communication, the ability to solve problems, the tact to manage situations and acquire the capacity to think and organize educative and useful programmes for the benefit of his/her students.

Need Addressed and the Context

In any professional pre-service teacher education programme, the theory learnt by the student has to be tried out in a real life situation. Internship is undertaken with the purpose of providing on the job/field experience to the students to develop competencies

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also other roles.

and skills required for effective classroom teaching, classroom management, evaluation of student learning, organization of co-curricular activities, working with the community, to enable students develop proper

KA III - QA 11 - QI 34:

There exists a preparedness for and incidence of extending service to other academic institutions.

professional attitudes, values and interests; to establish a closer professional link between RIE Mysore and schools in the region.

An internee is like an apprentice working under the guidance of highly experienced teachers of the school. In Internship, a trainee would

- ◆ stay in the school for an extended period

- ◆ mingle with the school community
- ◆ get first hand knowledge of the school situation and the associated problems
- ◆ participate in the programmes of the school
- ◆ organize programmes for the students
- ◆ acquire professional skills, attitudes, interests necessary to become a teacher.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

Description of the Practice

Internship has been conceptualized as a practice for achieving the above stated objectives by building a partnership with schools by viewing them as “*co-operating schools*” and by having an extended faculty for the institution by way of *cooperating teachers*”.

KA VI - QA 22 - QI 62:

The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.

Curricular Context of Internship: The four Year 8-Semester B.Sc.Ed. programme with specialization either in Physics, Chemistry, and Mathematics (PCM) or in Chemistry, Botany, Zoology (CBZ) prepares teachers for secondary schools. *Internship in Teaching* which is one of the best practices in this programme is organized in the VII Semester of the programme covering a duration of six weeks in schools across four cities other than Mysore and atleast one city from each State in the region. This is particularly to provide a choice for students for teaching practice in schools with regional language as the medium of instruction apart from English medium.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

KA I - QA 3 - QI 9:

The operational curriculum content has ample scope for varied learning situations both at the institution as well as at the school/field levels.

Internship is a full time attachment of student teachers to a school. For making this and the activities envisaged possible, a partnership is established with the ‘willing’ and ‘co-operating’ schools that are identified in a city where facilities for long duration boarding and lodging of students are available. Internship in teaching is organized in three phases viz. ‘pre-internship’, ‘internship’ and ‘post-internship’. Pre-internship and

KA II - QA 5 - QI 12:

Comprehensive orientation is given to the freshers about the institution and the programme.

KA II - QA 8 - QI 13:

The institution has evolved its own process of induction thought out every year, and is before the commencement of the programme.

post-internship activities are organized at the Institute. Necessary orientation to the cooperating teachers and Heads are provided at the Institute in a conference of five-day duration or at the respective centers before commencement in order to arrive at a common understanding with the co-operating teachers about the specifics of philosophy, criteria, and expected outcomes. An ‘Internship Committee’ constituted for the academic year with representatives from the Departments of Education, Science and General Education within the Institute looks after the academic and administrative aspects of the Internship programme. Field experience relating to the various activities to be undertaken during Internship is provided in the Demonstration School attached to RIE, Mysore. The various activities to be performed during the three phases of internship are as follows:

A. Pre-Internship

- i) Selection of cooperating schools
- ii) Holding a conference of the cooperating teachers and headmasters, and meeting of the student-trainees with the respective teachers and headmasters of the cooperating schools
- iii) Activities by Students:
 - a) Planning and preparing for teaching
 - b) Getting acquainted with the school environment
 - c) Observation of teaching
 - d) Initiation to teaching

KA VI - QA 21 - QI 57:

The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

B. Internship

- i) Getting acquainted with the cooperating schools, observation of teaching and time-scheduling for teaching and other activities
- ii) Planning and preparation for teaching (2 school subjects)
- iii) Teaching - 20 lessons in each of the two subject specializations
- iv) Evaluation – At least two unit tests on the units taught by the trainee
- v) Participation in school activities and, planning and organizing a few of them
- vi) Studying the school plan and its management
- vii) Participation in community work

C. *Post Internship*

- i) Seeking reactions of students, cooperating teachers and headmasters and Institute supervisors through inventory, interview and conference as feedback
- ii) Follow-up, remedial and strengthening activities to be taken up by the RIE Mysore.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

KA V - QA 16 - QI 44:

Institution values feedback and is responsive to feedback not only from within but also from schools.

Evaluation of performance of internees during Pre-Internship and Internship will be done on the basis of assessment by Institute supervisors, cooperating teachers, headmasters and students, and through self-appraisal. The scheme of assessment specifies the weightage given to pre-internship activities, teaching, observation of teaching of other trainees, evaluation of student learning and the activities other than teaching performed by the trainee during the Internship.

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

The Resources

Activities such as organization of pre-internship conference, travel of staff and students to the internship center, requires funds, which are allocated at the time of budgeting for the year. Even in the centers with fewer students at least one faculty of the Institute should be available for monitoring and supervision. The Institute provides stationery, chemicals, equipments in the form of a Kit to each center. The quality of the practice of internship depends on the quality of partnership with the school and the co-operating teachers.

KA VI - QA 24 - QI 67:

The institution has adequate financial resources to run the programme without any financial constraints.

The Impact/ Outcome

The practice has ensured that the practical inputs are at a level of rigor necessary for them to make an impact on the personality and competence of trainees. One finds a marked difference in the behavior and attitude of trainees after internship. Since the trainees have to stay in the center and some times in the very school where they are attached, they are prepared to face hardships and difficulties in

KA II - QA 7 - QI 20:

The process of nurturance and mentoring of student teachers is visualized and institutionalized.

teaching and learn to keep aside the personal comforts and pleasures. Their attachment to a co-operating teacher for a long duration provides scope for the teachers to act as mentors for the trainees. Since the internship center is not the place of their normal work, the faculty is able to focus exclusively on the activity and is available to the trainees on a continuous basis. However, the faculty should have the ability to negotiate with the school authorities to maximize the practical experiences especially when the school practices and beliefs differ from the philosophy and beliefs of the Institute.

KA V - QA 16 - QI 45:

The institution has a comprehensive feedback system in place for which relevant data/information are collected and collated.

KA V - QA 17 - QI 48:

Progress in implementation of the programme and extent of achievement of students are monitored, discussed and weaknesses identified for remediation.

Requirements for Adoption and Adaptation

For the internship to be successful, every staff should have the same understanding of it. An internship handbook for all concerned is a requirement. Sufficient care should be exercised before fixing the center and the schools. Even though the number of schools in an internship center could be increased or decreased based on the number of trainees attached to a center, at least one faculty member of the institute could be made available in a center at any given time. The criteria for assessment should be transparent and available to all. For reducing the cost, centers could be so selected that they are the nearest. However, if students belong to the same State, centers convenient to students could be selected. Staying together is very essential and enhances co-operative practice of the profession, peer learning and learning by observation. It is advantageous to work with a co-operating school for more than a year since greater understanding can be achieved with the co-operating teachers, though reducing its duration could reduce the cost of the course.



Organization and Management of a Decentralized Distance Teacher Education Programme

*Richard Siaciwena
Trui Meyns
Hector Swazi*

Editors' Note

This case study addresses the issue of organisation and management in a countrywide distance teacher education programme with a decentralised implementation system, in Zambia. It covers various Key Areas (KAs), Quality Aspects (QAs) and Quality Indicators (QIs) viz., : KA I Curriculum Design and Planning – QA 1 Institutional Vision (QI 1), QA 2 Process of Curriculum Design (QI 3), QA 3 Curriculum Content (QI 6), QA 4 Curriculum Revision (QI 11), KA II Curriculum Transaction and Evaluation- QA 8 Assessment and Evaluation (QI 22), KA III Research, Development and Extension- QA 10 Research and Development (QI 32), KA IV Infrastructure and Learning Resources- QA 14 Human Resource (QI 38 & 40), and KA VI Organisation and Management- QA 21 Internal Coordination and Management (QIs 57, 58, 59 & 60), QA 22 Academic Calendar (QIs 63 & 64), QA 24 Financial Governance (QIs 67, 69 & 70).

The Institution

The National In-Service Teachers' College (NISTCOL) of the Ministry of Education was established in 1939, as Jean's Training Centre for community teachers. The college has undergone several changes. It became purely an in-service institution in 1970 to serve the requirements of primary school teachers and administrators. The College is run through eight departments, namely, Languages, Natural Sciences, Mathematics, Practical Subjects, Social and Development Studies, Education, Distance Education and Expressive Arts. At present, the College offers four in-service courses, namely –

- ◆ Diploma in Education Management by Distance Learning (DEM) (Distance Education, 1½ years, 138 students)
- ◆ Diploma in Guidance, Counselling and Placement (DGCP) (Residential, 2 years, 39 students)
- ◆ Primary Teachers' Diploma by Distance Learning (PTDDL) (Distance Education, 1½ years, 4,420 students)

- ♦ Secondary Teachers' Diploma (STD), which is offered to both full time students (2 years, 276 students) and distance students (3 years, 940 students).

The PTDDL course described in this case study is run by the Ministry of Education through the National in-service Teachers' College in conjunction with Colleges of Education (CEs) and District Resource Centres (DRCs), and affiliated to the University of Zambia.

Objective of the Practice

The Primary Teachers' Diploma by Distance Learning (PTDDL) aims to upgrade the skills and qualifications of experienced Grade 1 to 7 teachers in Zambia. It is a response to the Ministry of Education's desire to retain highly motivated school teachers by upgrading their qualification and to subsequently improve the quality of basic education in accordance with the provisions of the National Policy on Education "Educating Our Future".

KA I - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and is compatible with the regional, national and global expectations.

Need Addressed and the Context

The Zambian Government has recognized the imperative of having adequate number of teachers and that teaching quality is essential to an effective education system. Therefore some of the strategic approaches adopted by the Ministry of Education within the National Policy on Education are:

- ♦ In order to foster the quality and effectiveness of the education system, the Ministry of Education will promote the quality of individual teachers and of the teaching profession as a whole.
- ♦ Cost-effective programmes that reach large numbers for a relatively small outlay, will be given high priority.
- ♦ The majority of in-service programmes will focus on school needs and will be based in the schools or in the Resource Centres.
- ♦ In-service training programmes will be structured based on identified needs of teachers and the education system, and will be predominantly school-based, with extensive involvement of Resource Centres.
- ♦ The Ministry acknowledges that the two pillars on which the professional competence of teachers rests are initial training and ongoing in-service professional and personal development.

Therefore the skills presented in the diploma course are expected to help teachers to refocus and reorient themselves to the major changes that are taking place in both the Colleges of Education and Basic Schools (the New Curriculum). At the end of the course, the teachers are expected to have acquired competency in pedagogical related knowledge and skills in planning, implementing and evaluating teaching and learning processes.

Description of the Practice

NISTCOL, under policy guidance of the Ministry of Education, coordinates the programme and works with 11 colleges of education (satellite colleges), who in turn work with 72 DRCs to implement the programme. The University of Zambia is responsible for quality assurance of the programme. The involvement of different stakeholders at various levels of programme delivery necessitated the development of a decentralised system. A system like this requires effective and efficient coordination and communication, especially with regards to the registration of students, organisation and management of face-to-face contact sessions, submission and marking of assignments, and record management. The main responsibilities of the various stakeholders in the delivery of the programme are presented in *Diagram 1*.

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring the activities at different levels.

KA I - QA 2 - QI 3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

Following the evaluation of PTDDL in 2005, the stakeholders have developed ‘*Terms of Reference*’ for the operational structures at all levels, which defines roles and responsibilities of various committees and officers involved in the delivery of the programme. The terms of reference were discussed and adopted at a national workshop for provincial administrators. The Administrator’s Guide also describes roles and responsibilities of all key staff involved in programme implementation. This document was developed with input from various stakeholders during several workshops and is now used by provincial and district teams, supported by an annual work plan.

KA VI - QA 21 - QI 57:

The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

The PTDDL has several systems for monitoring and evaluation, some of which involve immediate feedback to administrators concerned, others which are more formal and take the form of

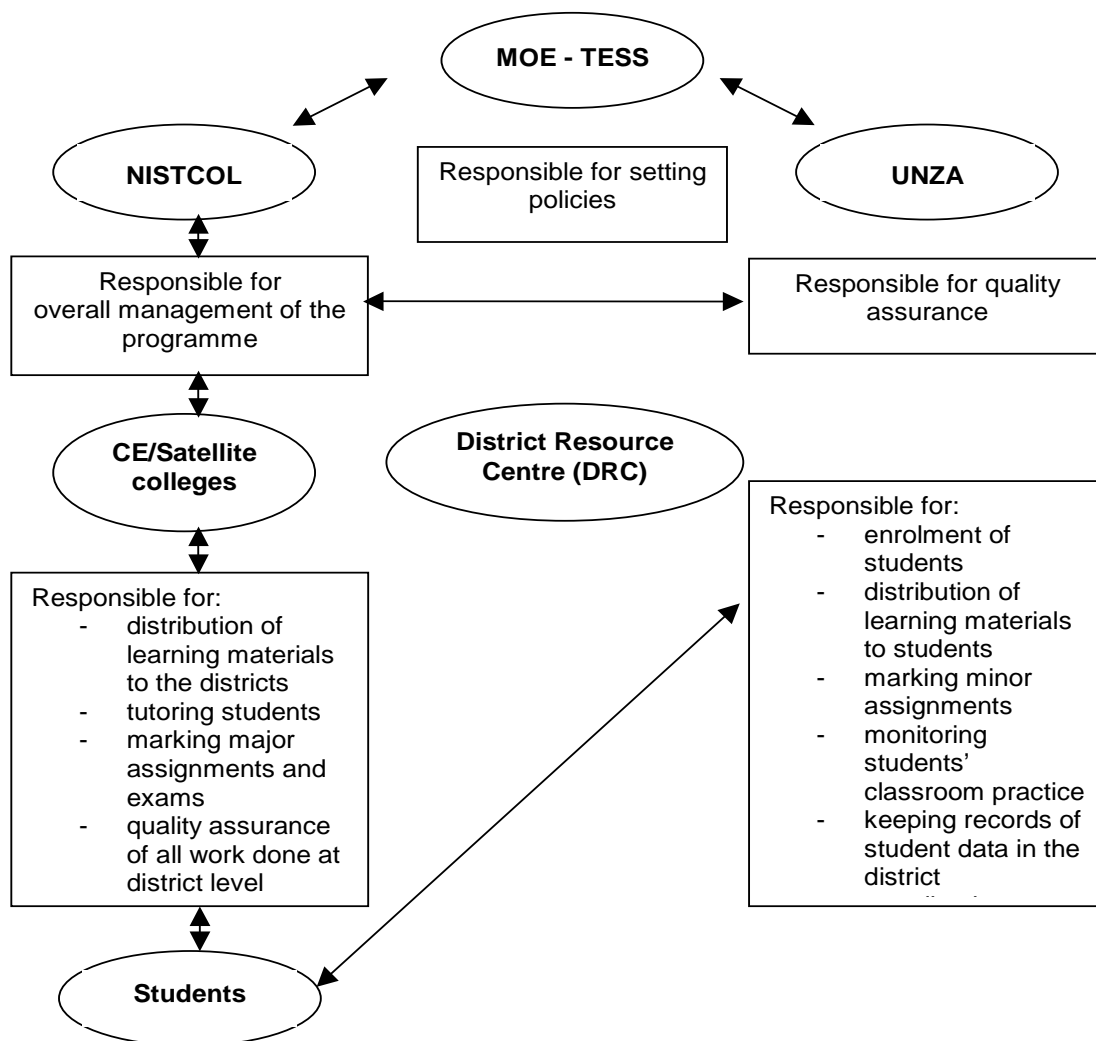


Diagram 1 : Stake holder Responsibilities and Delivery System

written reports that are widely distributed. At provincial level, the Provincial Education Officers (PEO) play a very important role in monitoring the programme through the Provincial Coordinating Committee. At district level, this role is performed by the District Education Board Secretary (DEBS) who works closely with the District Resource Centre Coordinator. The National Coordinating Committee meets quarterly to review programme implementation. It receives reports from NISTCOL and the Satellite Colleges about activities at provincial and district level. Provincial and District Coordinating Committees are expected to perform a similar monitoring function at their levels. Furthermore, there are meetings once every term between the Satellite

KA VI - QA 21 - QI 60:

The institutional leadership adopts professional management approach.

KA VI - QA 21 - QI 59:

The institution analyses the information obtained on monitoring and the outcomes are communicated to the concerned leading to corrective measures for improving the effectiveness of activities.

College Focal Point Persons (main contact person and coordinator for PTDDL at Satellite College level) and PTDDL administrators at NISTCOL. At these meetings immediate and pressing issues are discussed. Based on the information obtained through the various monitoring channels, decisions are made to improve programme management and communicated to the Principals of the Satellite Colleges, the Provincial Education Officers, who are chairpersons of the Provincial Coordinating Committee, the District Education Board Secretaries, who chair the District Coordinating Committee, and the District Resource Centre Coordinators.

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

KA I - QA 4 - QI 11:

The institution undertakes curriculum revision on a regular basis in the form of continual deliberations on its substance, adequacy and updatedness.

An academic calendar is developed incorporating the outcome of the above and various other deliberations. It shows all academic activities and is distributed to all students, administrators, and to everyone who is involved in monitoring and evaluating the programme. For each activity, the calendar indicates the timing, what it involves and who is supposed to carry it out. In this way, everyone can monitor the progress of the programme and be proactive. The distribution of this calendar to all stakeholders provides a clear timeframe against which progress can be measured. The bulk of the activities in the calendar relate

KA VI - QA 22 - QI 62:

The institution prepares an academic calendar reflecting all the activities of the programme, every year on the basis of deliberations.

KA VI - QA 22 - QI 63:

The activities contained in the academic calendar are for optimizing effective and coordinated use of available resources.

to student support, student monitoring and evaluation and as such it is very much about optimising academic progress and the educational achievements of the students. Because unforeseen events may cause slippages in the implementation of activities, the printed version of the calendar advises students to always check the regularly updated PTDDL calendar on the web site <http://www.nistcol.ac.zm> for any changes in the timing of activities.

The Resources

Three types of resources are considered in this case study. The first is the human resource. Sufficient number of staff at all levels has been recruited. Training workshops have been conducted at various levels to build their capacity to manage programme implementation. The second is ICT infrastructure. A VSAT has been installed at NISTCOL and the mobile phone network has become reliable and thus became handy for communications. Each of the Satellite

Colleges, has one up to date computer with basic internet connectivity. Consequently, communication amongst stakeholders has improved. The third resource-finances to implement the programme, are at a sustainable level after an increase in course fees. The programme has also strengthened by the technical and financial inputs from the Flemish Association for Development Cooperation and Technical Assistance (VVOB).

KA VI - QA 24 - QI 67:

The institution has adequate financial resources to run the programme without any financial constraints.

KA VI - QA 24 - QI 69:

The sources of income for the programme in particular and the institution in general are legitimate and known.

The Impact/Outcome

As a consequence of the establishment of committees with clear ‘*terms of reference*’ and the production of the ‘*Administrator’s Guide*’, the programme implementers are aware of their roles and responsibilities and they can be held accountable by all stakeholders involved. Monitoring meetings have improved communication and reporting. This has maximised the participation of all stakeholders in decision making and programme monitoring.

KA II - QA 8 - QI 22:

Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.

However, the ICT infrastructure is not yet sufficiently developed to adequately support the management of the programme (eg. virtually no access to ICT for students). At district level a lot of capacity building remains to be done. The same is true to a lesser extent at provincial level.

Requirements for Adoption and Adaptation

This case study describes the decentralised management of a distance education programme catering to large numbers of students (4420) dispersed over a wide geographical area (754,000 square km) in Zambia. What became very clear is that this kind of system requires the development of operational and monitoring structures to support it. For such a system to function efficiently, capacity development is an important precondition. This capacity development is made more complicated by the fact that the administrators of the programme are also spread out over the whole country. Therefore, precise procedures, good and clear communication channels and infrastructure are crucial, as is a clear definition of roles, responsibilities and accountability right from the start of the programme. While developing these, it is important to have the involvement of all key stakeholders and the implementation of their programme should be a collaborative activity of all stakeholders. Any large government

run programme of this kind should be embedded in the existing institutional structures (*eg.* colleges of education, resource centres, provincial education offices) and use those structures for implementation of the programme. Finally, in order to undertake the central management of this kind of large distance education programme, the coordinating institution should have a separate unit specifically to manage the distance programme. The programme has now been running for six years and two cohorts of students have graduated. With each intake of students new improvements were made. Running this kind of programme is a never ending process of monitoring, quality assurance and improvement.

Towards a Comprehensive Teacher Educations Programme: The DAV Experience

D.N. Sansanwal

Editors' Note

This case study illustrates how curriculum transaction and evaluation manifests itself in a teacher training programme especially relating to KA II Curriculum Transaction and evaluation. The Key Areas (KAs) covered to a greater extent in this study are KA II Curriculum Transaction and Evaluation- Quality Aspect (QA) 6 Transaction of Theory (QIs, 15, 16 & 17), QA 7 Transaction of Practical Experiences (QIs 18 & 21), QA 8 Assessment and Evaluation (QI 25), QA 9 Teacher and Teaching (QI 28), KA III Research, Development and Extension- QA 11 Community Engagement (QI 34) and KA IV Infrastructure and Learning Resources- QA 14 Human Resource (QIs 38 & 40), QA 18 Guidance and Counseling (QI 50).

The Institution

The Devi Ahilya Viswavidyalay (DAV), Department of Education, presently named as Institute of Education, was established in 1964. It is one of the two departments of the DAV, which were identified as Centres of Excellence by the State Government, the other being the Department of Life Sciences. As per the Madhya Pradesh state admission criteria the department can admit only students from Madhya Pradesh state. The students to B.Ed. programme are admitted through Pre-B.Ed. entrance test conducted centrally at the state level and as per the norms of the NCTE. The reservation policy also is applicable. The seats are filled through counseling and the students have an option to choose the institute. All 155 student positions get filled. The selected students mainly belong to low or average socio-economic status. The M.Ed. Programme has an approved intake of 20 and admissions are made on the basis of overall percentage of marks secured at B.Ed level. The Institute has 21 faculty positions. The faculty comprises well-qualified and senior professionals. Being a constituent unit of the University, the overall control of administration of the Institute is with the University. Similar to all other Schools of Studies and Institutes of the University the Institute of Education has academic autonomy. This has helped in many innovative programmes being conceptualized and implemented. The Institute of Education has well equipped departmental library, computer unit, and different laboratories required for the programmes. The Institute also has a digital camera and Non- Linear Editing System useful for conducting various activities. This facility is

being utilized for developing Digitalized Instructional Material in Research Methodology and Statistics. The Institute has broadband Internet connectivity and is used widely both by students and teachers.

Objective of the Practice

The objectives of the practice are as follows:

- To develop strong pedagogical foundation amongst its trainees.
- To prepare teachers with best teaching competencies and commitment.
- To develop good communication skills amongst trainees.
- To prepare teachers with scientific outlook, self-confidence, caring and human values.

Need Addressed and the Context

The quality of teaching depends on many attributes-understanding of subject content, theoretical understanding of pedagogy, teaching skills acquired by the student teachers and so on. It is generally observed that teacher training institutes do not contribute much in improving the understanding of subject matter due to lack of time as well as competent staff. The Institute of Education, addressed itself to this issue and the faculty decided to change the Theoretical Transaction and Evaluation for which emphasis was on Transaction of Practical Experiences.

Description of the Practice

The Institute of Education admits 155 students for the one - year B.Ed. programme. The admitted students are divided into four groups. Out of the four groups, one group is of English medium students; one Activity Based group and other two groups are formed randomly. The Activity Based group generally consists of 25 students who act as volunteers. The size of other groups consists of 35 students in each group. The concept of dividing the students into small groups was undertaken realizing the fact that a small class size aids in better transaction of practical experiences. Transaction of practical experiences does require theoretical transaction. Majority of the time, the theoretical transaction is done through 'Lecture Method' where students are passive. Thus, the faculty decided to reduce the use of 'Lecture Method' and started integrating other methods and techniques with lecture method. Programmed learning material, seminar, group discussion, quiz, focused-reading, group assignment with feedback, and similar activities are the major methods/approaches used in inter-related ways. Models of Teaching, teaching aids, and Information and Communication Technology are extensively used to break the monotony and bring dynamism and value addition in the teaching – learning process.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.

Communication, Models of Teaching and microteaching are introduced as compulsory courses and are offered during the first semester. The students study theory followed by demonstration of teaching skills and Models of Teaching. The major skills practiced by the students include stimulus variation, probing questioning, reinforcement, explanation, listening, and black board writing. Each student is required to give three lessons in each of the above-mentioned skills. A sequence of teach and re-teach constitutes one lesson. Each student also gives three lessons of 35-40 minutes duration integrating all teaching skills. These are termed 'integration lesson'. Apart from the video recording of lessons during practice in simulation and use of it for feedback purposes, proper focused feedback also is given by both the faculty and peers throughout the process.

KA II - QA 8 - QI 25:

The institution employs ICT extensively in assessment and evaluation activities of the programme.

KA II - QA 7 - QI 21:

The learning experiences are followed by feedback, reflection and follow-up.

The given Models of Teaching are Concept Attainment Model, Inquiry Training Model, Value Analysis Model and Training Model. Each trainee gives three lessons for each of the Models of Teaching, which is of 35 – 40 minutes duration. In addition, each student teacher is given practical training in developing and handling various teaching aids like charts, models etc., and in handling of different Audio Visual equipments. The students use these during the practice of Skills and Models of Teaching and also when they go for practice teaching in schools. The practice of Micro - teaching and Models of Teaching is done in simulation. It helps in building confidence in the trainee. It is organized for a total of 128 hours, eight hours per week, spread across 16 weeks and is aimed at developing skills and competencies in using Models of Teaching. It prepares trainees before going to Schools for practice teaching. The practice teaching is of one - month duration and is taken up by students in identified schools in the nearby locality and in the model school managed by the Institute.

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

KA II - QA 6 - QI 17:

The staff and students have to access to technology and information retrieval on current and relevant issues.

KA II - QA 6 - QI 15:

The instructional processes are geared to develop of reflective thinking and practice both individually and in groups.

The Resources

All teachers of the Institute of Education (IOE) are well trained in micro-teaching as well as Models of Teaching. The physical, human and financial resources required are available in the IOE. Whenever required the

KA IV - QA 14 - QI 38:

Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.

University provides funds. The reservation policy is being followed in the appointments of both teaching and non-teaching staff and thus the institute caters to national policy on diversity and equal opportunity. Based on the requirement the faculty development programmes are organized. The teachers are also nominated for refresher courses organized by Academic Staff Colleges across the country. The teachers are encouraged to publish papers, attend conferences and participate in other related professional development activities for which the institute has clearly laid down policies and allocation of resources. All this helps in sustaining quality and keeping the faculty and other human resources abreast of the latest developments in the field and profession. Faculty members have undertaken and published various studies related to micro-teaching and Models of Teaching. In fact, teachers of IOE have contributed a lot to the profession by way of training teachers from other training colleges as well as Departments of Education. Some relevant material related to Models of Teaching, Theory checkup (TC), Lesson Planning Guide (LPG), Teaching Analysis Guide (TAG) and Worksheet (WS) were developed by the IOE. These have helped the teaching community in effectively implementing Models of Teaching.

KA V - QA 18 - QI 50:

Institution has a well-structured, organized, proactive guidance and counseling unit which is accessible to all students.

KA IV - QA 14 - QI 40:

Efforts are made to upgrade professional competence of not only academic but also administrative staff.

KA III - QA 11 - QI 34:

There exists a preparedness for and incidence of extending service to other academic institutions.

The Impact / Outcome

The impact of the unique features of this teacher - training programme is visible from the fact that students of the Institute of Education are in demand in schools within the city as well as out side. Some B.Ed. students get jobs in schools even before they complete the course. Though there has been an increasing demand from the field the institute is constrained to restrict the student intake to 155 due to limited human, physical and financial resources. The institute has however been catering to the requests of schools to train their teachers in certain areas, like, teaching of concept, paper setting, development of reasoning and thinking, development of inquiry skills, and so on.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

Requirements for Adoption and Adaptation

Transferability of this practice does not need much modification and can easily be adopted in most contexts. The essential requirement is the modification in the curriculum and training of

teacher educators associated with the programme. The library and different laboratories may need some up-gradation. Non-availability of qualified teacher educators can be a bottleneck, which is the situation in the Indian context. All teacher educators should be trained in micro-teaching as well as Models of Teaching for which material in different forms can be supplied for the use of teacher educators during the training. The institutes should provide training programme for their teacher educators on a continual basis and not just occasionally.

Quality Assurance Framework for the Pivotal Teacher Training Programme

Abdurrahman Umar

Editors' note

Nigeria faces a steep shortfall of qualified teachers needed to achieve the goal of Universal Basic Education (UBE), which is difficult to overcome with the extremely limited access to TEIs in the country, which is mainly through the existing conventional face-to-face system of education. The National Teachers' Institute has tried to provide wider access to TE by introducing a TE through ODL mode, thereby creating an effective, viable alternative for teacher preparation and meeting the national requirement of teachers. The case study covers. The following major Key Areas (KAs), Quality Aspects (QAs) and Quality Indicators (QIs) are covered: KA II Curriculum Transaction and Evaluation- QA 7 Transaction of Practical Experiences (QIs 18 & 19), QA 8 Assessment and Evaluation (QIs 22 & 23) , KA III Research, Development and Extension- QA 10 Research and Development (QI 31) , KA V Student Support and Progression- QA 17 Diagnosis and Remedial Programme (QI 47) and KA VI Organisation and Management- QA 21 Internal Coordination and Management (QI 58), QA 25 Academic Quality and Management (QI 72).

The Institution

The National Teachers' Institute was established in 1976 to provide courses of instruction leading to the development, upgrading and certification of teachers through distance education. Its focus is mainly on in-service training of teachers. The courses it offers are:

- ♦ The Nigeria Certificate in Education - enrolment was 93,547; graduate output since 1993 till date 62,129.
- ♦ The Postgraduate Diploma in Education and Advanced Diploma courses - enrolment 10,200; graduate output 4000.
- ♦ The Grade Two Teachers' Certificate (TCII) - current enrolment 130,000; graduate output since 1982, 3,00,000.
- ♦ The Pivotal Teacher Training Programme (PTTP) - graduate output 28,562 (2003);
- ♦ Short duration in-service re-training courses for teachers.

The Institute's headquarters is located in Kaduna, a city of over one million people. The Institute has 37 state offices, 6 Zonal offices and 794 study centres nationwide. It is wholly

funded by the federal government and has 1050 academic and administrative staff; and 6000 part time staff. The minimum qualification for full time academic staff is a Masters' degree, while the qualification for part time staff ranges from B.A/B.Sc (Ed) to Ph.D.

The Objective of the Practice

The main objective of PTTP is to address the current and projected shortfalls in teacher supply by producing teachers of good quality required for effective implementation of Universal Basic Education (UBE). The overriding concern has been the quality of ODL programmes and the parity between ODL and formal conventional educational provisions. Every ODL institution is required to demonstrate that the quality of its delivery system is based on the same set of performance indicators and its graduates are comparable to that of formal conventional institutions. Thus, the objective of the QAF is to produce teachers of good quality who are highly motivated and effective. The expected outcome is the production of 3,00,000 teachers for the UBE within five years (2001-06), whose quality is comparable to that of conventional teacher training colleges and who at the end of the PTTP course would:

- ♦ demonstrate adequate knowledge of the subject matter;
- ♦ demonstrate adequate levels of proficiency in a wide range of teaching methods and techniques suitable for teaching in primary schools;
- ♦ imbibe relevant values and attitudes that would make them develop positive attitude towards the teaching profession; and
- ♦ acquire the requisite knowledge and skills for enrolling in existing upgrading programmes.

Need Addressed and the Context

The PTTP was introduced in August 2000 in order to address within a short time, the existing shortfalls in teacher supply for UBE. It was intended at training teachers within the shortest possible time for catering to the millions of children expected to be enrolled on implementation of the UBE scheme. Further for the UBE to take off it was estimated that 2,79,411 teachers would be required at the primary school level. With the shortfall for the period 2001-06 projected at 2,36,000; the shortfall could be properly addressed by preparing 40,000 teachers annually by the system. It is in the context of this pressing need for the preparation of large number of teachers of good quality within a short time and low financial investments that the Institute designed, developed, and implemented the PTTP, as a cost-effective programme that addresses within a short time, both the quantitative and qualitative requirements of teachers to facilitate the effective implementation of the UBE scheme.

The underlying assumption is that given the inability of conventional teacher training institutions to produce the required number of teachers for the UBE, Open and Distance Learning presents

the most viable alternative for the mass production of teachers in the shortest possible time cost effectively.

Description of the Practice:

Under the PTTP, a candidate who completes the Senior Secondary Education and possesses the prescribed entry requirements is recruited and trained for 18 months to teach in a primary school. The PTTP is therefore aimed at encouraging more number of secondary school graduates to enter primary teacher education along the lines of innovative mixture of the distance education mode and school experience (World Bank, Working Papers 53, 2004 p.94). It is an alternative form of teacher training expected to provide much of the course time to school experience and school-based teaching-learning approaches. The printed self-instructional text, organized in the form of modules is the main mode of delivery. There are 10 units in a module and every subject has 12 modules. There are five core subjects, which every student must pass i.e. English, Mathematics, Education, Integrated Science and Social Studies along with the and two optional subjects.

KA II - QA 7 - QI 19:

The school-based experiences are comprehensive and varied to include exposure to not only instructional role of teachers but also their other roles and functions.

There are eight months of weekend contact sessions, which translates into 187 hours of weekend contact sessions spread over 32 weekends. In addition there are 408 hours of intensive contact sessions held during holidays for schools. A total of 595 hours of face to face contact sessions are organized during weekends and holidays. All contact sessions are conducted at designated study centres located in 36 out of the 37 states of the country and the Federal Capital Territory, Abuja. In addition, every student must undergo eight weeks of supervised teaching practice and three months of internship. Apart from the printed self-instructional texts and the contact sessions, audio and video recordings are also provided to enrich the students' understanding of the subject matter.

KA II - QA 7 - QI 18:

Adequate preparation for practice of teaching is provided through various in-house hands on experiences including simulated practice.

KA II - QA 8 - QI 22:

Apart from grading and certification, the institution employs assessment and evaluation outcomes for enhancing competence of students.

The Quality Assurance Framework (QAF) is a multistage evaluation procedure that uses qualitative and quantitative strategies of gathering data and involves all stakeholders in its design and implementation i.e Local Government Education Authorities, State Primary

Education Boards (SPEBs), State Ministries of Education, The Universal Basic Education Commission, school teachers and headmasters, students, community and the National Teachers' Institute. The process is led by consultants drawn from twelve Institutes of Education of Nigerian Universities. The QAF seeks to:

- ◆ generate data for the continuous improvement of the programme (Formative Evaluation);
- ◆ establish minimum standards in the following areas: entry qualification, curriculum content, pedagogical skills, pedagogical environment, trainee performance and determine the adequacy and effectiveness of the teaching and learning processes etc.;
- ◆ generate baseline data on trainees;
- ◆ provide a basis for continuous programme monitoring and evaluation;
- ◆ identify the programme's weaknesses and address them; and
- ◆ facilitate tracer studies on the graduates of the programme.

A Technical Working Committee consisting of some agencies/parastatals of the Federal Ministry of Education, Institutes of Education of the universities of Ibadan, Nsukka and Zaria, SPEBs, Nigerian Union of Teachers (NUT) and Teachers' Registration Council (TRC) was established for programme appraisal. The Committee meets once a quarter and appraises the implementation of the programme.

KA VI - QA 25 - QI 72:

The institution has mechanisms to undertake internal academic audit of the programme.

Twenty five instruments were used to measure the following Quality Indicators:

- ◆ Instruments that measure the quality of transactions *i.e* delivery of instruction, teaching practice, continuous assessment, and examinations,
- ◆ Instruments that measure the quality/adequacy/relevance of the content of the curriculum,
- ◆ Instruments that measure the quality, effectiveness and efficiency of the course tutors at the study centres,
- ◆ Instruments that measure the attitudes of the students towards the programme
- ◆ Instruments that measure the exit performance of the PTP products
- ◆ Instruments for conducting Tracer Studies that

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

would evaluate the on-the-job performance of the PTP graduates.

KA III - QA 10 - QI 31:

The institution has the practice of appraising its work through in-house research institutionalizing innovative practices and undertaking formal sponsored research projects relevant in institutional and national contexts.

The Programme is regularly monitored during which relevant data are generated through the aforementioned instruments, analysed and used in decision making and for course improvement. Qualitative and quantitative research strategies are triangulated in order to generate comprehensive, valid and reliable data on all aspects of the programme.

There are three types of programme monitoring viz., subject monitoring, teaching practice monitoring and routine supervision.

Subject monitoring focuses on effective delivery of the curriculum, including the appropriate use of course material; adherence to the guidelines on holiday/weekend contact sessions and assessment of students' work. This aspect of monitoring is conducted for the Institute by part time staff drawn from the Institutes of Education of the twelve cooperating universities - i.e. Universities of Lagos, Ibadan, Benin,

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring the activities at different levels.

Port-Harcourt, Calabar, Sokoto, Kano, Maiduguri, Jos, Ilorin, Nsukka and Zaria. Teaching practice supervision consisting of eight weeks of compulsory teaching practice for all students is monitored by the 12 participating universities, some Colleges of Education and the National Teachers' Institute. Routine monitoring, seeks to ascertain the effectiveness of the general day to day administration of the programme and is handled by the National Teachers' Institute, Kaduna.

The Resources

The resources required for implementation of the QAF can be categorized into human/ personnel and financial. The following categories of personnel are used in the implementation of the QAF:

- ◆ a national coordinator (usually an experienced teacher educator/academic and specialist in educational measurement and evaluation);
- ◆ one coordinator for each of the 35 participating states and the FCT;
- ◆ 743 research assistants *i.e* one per study centre;
- ◆ 42 administrative staff drawn from the Zonal and state offices *i.e* 36 NTI state coordinators and six NTI zonal officers.

The average annual cost of implementing the QAF nationwide is N30 million (US \$ 300,000), which covers the following: travel/fuelling/Duty Tour Allowance of personnel; production, distribution and administration of instruments and data analysis/report writing.

The Impact/Outcome

The QAF enabled the Institute to generate reliable and useful formative and summative data that were used for decision making aimed at improving the quality and effectiveness of the programme. The QAF also generated data on the quality and effectiveness of the PTTP, particularly data on the professional knowledge and skills of the graduates of the programme. A World Bank –sponsored Tracer Study of PTTP graduates found that school authorities in nearly all parts of the country rated the PTTP graduates as “effective” or “highly effective” (83%) and only 16.7 % of schools that had PTTP graduates rated them as “ineffective” (Tee-Kay Educational Consultancy 2004, p44-45). The major hurdle faced in the implementation of the QAF is funding. After the nationwide implementation of the QAF in 2000/2001, the provision of funds for the PTTP became very irregular and inadequate and finally ceased in 2004 thus forcing the Institute to scale down the project only to a few states. Another serious problem was the failure of many research coordinators from various states to meet deadlines in submission of formative data to the Institute’s headquarters; which in turn often delayed important decision-making aimed at improving aspects of the PTTP that were not being implemented properly or were found to be deficient.

KA V - QA 17 - QI 47:

Concern for the development of students, is reflected in the student monitoring system in place.

Requirements for Adoption and Adaptation

There may be other developing countries facing serious shortfalls in teacher supply and in preparation of teachers for UBE. In such a context using distance education strategies is a necessity; but unfortunately ODL is often erroneously considered to be the second best option. Thus, ODL institutions face the challenge of convincing skeptical public that the graduates of ODL courses are as good as that of conventional institutions. In such contexts, it may be useful to adapt/adopt the PTTP’s QAF. Some of the most important requirements for adoption/adaptation of the PTTP’s QAF are:

- ◆ adequate funding;
- ◆ a decentralized programme management system that delegates important decisions on many aspects of programme delivery/course improvement to local regional offices;

- ◆ a good feed back system that is characterized by speedy communication of formative data to headquarters and decisions to the local regional offices;
 - ◆ the existence of a core group of experts on measurement and evaluation in education that can provide leadership in the headquarters and zonal/regional offices during the implementation of the QAF; and
 - ◆ a clear understanding of the objectives and mode of implementation of the QAF by staff in the headquarters, the regional offices and study centres (which can be done through adequate dissemination of information on the QAF; training and participatory decision making).
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Collaboration for Interdisciplinary Post-graduate Course Development in Education

C. Seshadri

Editors' Note

This case study, which puts forth a practice adopted by a group of forward thinking institutions is an attempt at capacity building of various stakeholders related to integrating academic knowledge and field learning. Although the case is presented as one concerned with Key Area (KA) curriculum design it relates to several Quality Aspects (QAs) and Quality Indicators (QIs) under Curriculum Transaction and Evaluation also. The quality aspects covered are - KA I Curriculum Design and Planning - QA 1 Institutional vision (QI 1), QA 2 Process of Curriculum Design (QI 3), QA 3 Curriculum Content (QIs 5, 6, 7, 8 & 9), QA 4 Curriculum Revision (QI 10), KA II Curriculum Transaction and Evaluation - QA 5 Induction / Orientation (QI 13), QA 6 Transaction of Theory (QIs 14 & 16), QA 8 Assessment and Evaluation (QI 23), QA 9 Teacher and Teaching (QI 28).

The Institution

The Collaborative Post Graduate Programme in Education (CPG) leading to MA Education (Elementary) is a major macro level intervention for the development of skilled professionals in elementary education. It is conceptualized, developed and implemented collaboratively by a group of institutions including NGOs with relevant research, teaching and field experience. The institutions partnered in the CPG programme are - Unit for Research in Sociology of Education, Tata Institute of Social Sciences (TISS), Mumbai; Vidya Bhavan Society, Udaipur; Homi Bhabha Centre for Science Education (HBCSE), Mumbai; Digantar Shiksha Evam Khelkud Samiti, Jaipur; Eklavya, Madhya Pradesh and National Institute of Advanced Studies (NIAS), Bangalore. The programme is housed in the TISS and launched in May 2006.

Objective of the Practice

The central objective of the CPG programme is to build professional preparation of teachers, teacher educators, curriculum and textbook developers, educational planners, administrators and researchers around integration of academic knowledge and field learning. Students completing the CPG programme are expected to have knowledge in core and foundational areas of education in the Indian context with reference to theory and issues in research; have

developed specific expertise in some areas (for example, teacher education) and be able to relate the theory to their professional / research interests.

Need Addressed and the Context

The CPG programme with focus on elementary education is being launched at a time when the country has taken on the challenge of universalizing elementary education with a commitment to ensure quality education for all. The large scale expansion of the elementary education sector and the plethora of new

KA I - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and are compatible with the regional, national and global expectations.

support structures that have come up at the district and sub-district levels created the need for suitably trained human resources to carry out such field functions as training of teachers, field supervision of educational activities, research and development of curriculum and teaching-learning materials, advocacy and developmental work with teachers and communities. Due to lack of appropriately trained personnel in elementary education other than the activity of teaching children in elementary school, all other functions related to this sector of education are attended to by people who have trained for and taught only at secondary level. The problem is especially acute in the area of teacher training. There exists no focused programmes for the training of trainers at the elementary level. Extant programmes of M.Ed and M.A.Edn. offered by the Universities are omnibus type programmes and lack the edge to deal with elementary education specific issues. The CPG programme targets this requirement. It is addressed to meet the professional training requirements of a wide range of functionaries in the area of elementary education: teachers, teacher educators, researchers, supervisors and resource staff.

Description of the Practice

In conception and design the CPG programme is unique and novel. It involves collaboration in course design and teaching between many institutions and individuals. Through collaboration the programme tries to mainstream field experiences and dispersed expertise into the knowledge base of elementary education. The CPG programme is conceptualized as a two-year (4 semesters) post-degree programme of M.A Education (Elementary). It will be housed in TISS and implemented by a Collaborative Academic Committee (CAC) of the organizations mentioned above. The clientele for the programme and associated career and

KA I - QA 2 - QI 2:

Curriculum is visualized with adequate and appropriate interfacing of various curricular components including the goals and objectives through active deliberations.

academic opportunities are clearly specified. The programme is available for those with basic undergraduate degrees with or without B.Ed / TCH but with the experience of working in schools / education related activities for at least two years. It is open for school teachers, teacher educators, faculty in Institutes of Educational Planning and Management, State Councils of Educational Research and Training (SCERT), District Institutes of Education and Training (DIET) and Block Resource Centres (BRCs), employees of NGOs and others interested in developing a career in elementary education. Sponsored candidates from government / NGOs are also accepted. Full details about the programme including programme structure and courses, instructional design and evaluation, organization of the collaboration, teaching and review and schedule are provided in the document “*Curriculum and Description of Courses for M.A. Edn. (Elementary)*” made available to those interested in pursuing the programme. The programme is also given wide national publicity through announcements in national newspapers and details are posted on the website.

KA V - QA 19 - QI 53:

The institution has an admission policy, which is appropriate, clear, inclusive and widely publicized.

Curriculum Design: The CPG is built around the curricular areas of *Human Development, Nature and Development of Knowledge, Education and Society and Schooling*, with compulsory component of residential field attachment. The programme is designed to provide students with basic courses in foundational areas of education, thematic and issue based courses that are of special significance in the Indian context and areas of study relating more directly to professional needs. It has 10 courses and one field attachment spread over four semesters. A large proportion of the courses are of a compulsory nature, to ensure that there is a common basic and rigorous understanding of educational issues in the Indian context. A selection of optional courses provides students the opportunity to study specific areas of interest in more depth, and specialize.

KA I - QA 3 - QI 7:

The operational curriculum content is designed in such a way that it has adequate inputs for development of attribute expected in a school teacher.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

Implementation: To facilitate participants to combine their work with study, the programme is planned in the dual mode giving equal significance to both the contact as well as the distance components. It maintains a rigorous paced study as well as high quality interaction between faculty and peers. Each course is

KA I - QA 2 - QI 3:

The program has clearly laid down modalities, policies and regulations for implementation of curriculum.

planned to run for a semester of about 4½ months (18 weeks), which would comprise three weeks of contact. The remaining period is spent on planned weekly/fortnightly reading, study and assignments to be shared with faculty and other peers through email. Courses are planned so that during the contact periods time is spent on conceptual parts which require more direct interaction with faculty. The contact period is planned for 360 hours of face-to-face interactions with faculty and the peer group of learners. This part of the programme is residential. The contact classes will be held at TISS and students would have access to library of TISS and HBCSE for additional reference and study. Contact teaching is planned so as to suit the students engaged in library work. More peer group collaborative work is planned for this period. This initial period of contact would establish the group of learners into a learning community, capable of sustaining a discussion through email and other exchanges. Special lectures by guest faculty will also be arranged during this period. The first semester contact includes work with computer systems and e-mail, counseling in respect of optional courses and field attachment and an additional component of English.

KA II - QA 5 - QI - 13:

The institution has evolved its own process of induction thought out every year, and takes place at the commencement of the programme.

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.

The distance component is planned as a continuing interaction between faculty and the peer student group. It is sustained through print – material and assignments, and e-mail (extending to web/online based interaction). Each course is the responsibility of a group of faculty members who are also involved in developing the course, syllabus design and the course materials. Faculty involved in course development would also teach in the programme. The groups plan in advance on modalities for organizing the teaching of the course and how the teaching of the course would be organized and internally arranged for one or more of them to be instructors for the course. The course materials comprise: Selected readings – selections, papers, clippings, other materials: policy document, textbook sample; specially developed introductory writing, film clippings; series of questions to be considered and answered as part of reading; small field assignments to be undertaken with guidelines; assignment questions. Additional multimedia components are being developed and would be enriched over the years. These and other scanned print resources would also be made available to learners in

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

the form of CDs or on the net with a provision for downloading.

Field Attachment: A compulsory two-week, residential field attachment linked to the subject area of one of the optional courses is included to give students an opportunity to engage with professional practice. The objective is to provide opportunity to engage with innovative educational practice in real settings and interact with practitioners; to link courses with practical field experience and to reflect on the same; to apply elements of research methodology to study field experience and develop skills of writing critical and reflective commentaries, presentation skills; develop specialized knowledge and skills in specific aspects of professional practice. The attachment is planned for two weeks to be spent at a site of field activity intended at designing

KA I - QA 3 - QI 9:

The operational curriculum content has ample scope for varied learning situations both at the institution as well as at the school/field levels.

or implementing some professionally relevant aspects such as training, working with children/girls, material design, etc. It introduces the learner to a variety of concerned field based actors influencing in the education process and often trying out things which are at the cutting edge of practical innovation concerned with universalising elementary education. Suitable field sites are identified from which the student could choose according to his/her interest and feasibility.

KA I - QA 3 - QI 8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

Evaluation and Review: Evaluation covers end-term examination in courses, assignments submitted during the course, term paper and field attachment with assigned weightages. All courses are creditized. Assignments are a part of the self-study pedagogy, structured and based on readings. Term paper is based on reading or conducting a small study followed by analysis of it or analyzing case studies provided. The review of the programme will be done by a monitoring

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

and review committee and also by the CAC and all course groups. This review will be supported by the activities of a research and documentation team.

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.

The Resources

The collaborating institutions have provided resource support in the form of faculty expertise, learning sites for field attachment and visiting faculty. The TISS houses the programme, provides

access to its library and facilities for the conduct of contact classes and residential accommodation for students. HBCSE provides access to its library. The Sir Ratan Tata Trust has supported the development of the programme. Support for faculty time has been sought through the grant; other running costs will be recovered through student fees. The CAC will also work toward achieving stability for the programme in the long term. It has sought support for the programme and for student fellowships and scholarships from the University Grants Commission (UGC) and other trusts and organizations.

The Impact / Outcome

The CPG is a first of its kind, pan-Indian intervention in elementary education at the post-graduate level. Some of the promises the venture holds are:

- ◆ It presents a novel and creative model of an interdisciplinary post-graduate programme in elementary education aimed at the training of a range of professionals including teachers and teacher educators. The programme ideally matches the professional training requirements of teacher educators in elementary teacher education institutions especially DIETs.
- ◆ It may spur enterprising universities and colleges to think in the direction of generating their own situation-specific models incorporating the CPG programme’s innovative features.

KA I - QA 3 - QI 5:

The operational curriculum is visualized with adequate flexibility to include and effectively reflect the emerging concerns and expectations from a school teacher.
- ◆ The programme seeks to gather and systematize the thinking, reflection and experiences that have taken place both within and outside the country in the area of elementary education to evolve a coherent vocabulary, researched and documented knowledge base and informed perspectives.

KA II - QA 6 - QI 16:

Curricular activities reflect interconnectedness among the various components of the programme.
- ◆ It presents an excellent illustration of the rigorous process of curriculum planning incorporating experiences and perspectives from multiple disciplines, programme designing for reflective study, collaboration with multiple institutions, integration of contact and self-paced learning, self-study pedagogy through structured assignments and integration of field experiences (practice) with academic knowledge (theory).

Requirements for Adoption and Adaptation

The programme has to address the following challenges:

The programme has to ensure its stability first. *The CPG programme should not be taken as the final end but only as demonstration of such a venture.* If the programme leads to wider acceptance of its philosophy and approach and triggers local specific initiatives among universities and teacher education institutions it will have justified itself. Here it has to contend with the conservative thinking embedded in institutions of higher learning and the traditional teacher education establishment.

Although the programme has provisioned for context-specific learning experiences, its location in TISS carries the risk of the programme turning out to be a top-down model, going by past experiences. Spreading it out, as the programme takes root, to universities and colleges across the country may be a possible way out. The programme focus can be changed to secondary teacher education by making suitable changes in curriculum and teaching organization while keeping the basic principles and framework intact. Details pertaining to the needed changes may be worked out by expert groups. Institutions currently offering teacher education programmes through the ODL mode can follow the guidelines for adopting the dual mode of operation especially with reference to feedback and monitoring of distance learners.

Also to facilitate wider adoption, the programme needs to be recognized as *a required qualification for faculty appointments* in the DIETs, SCERTs and elementary teacher training establishments by the concerned governments. Not being a “standard” programme of teacher education, CPG falls outside the purview of extant NCTE norms and needs to be judged separately as an innovative programme by the NCTE. Finally the intake of students needs to be substantially scaled up to make it viable for operation in the dual mode.

Partnering Teacher Education with School Sector for Promotion of Quality Assurance

R Karpaga Kumaravel

Editors' note

This case study illustrates an initiative of a tertiary education institute i.e., a University to holistically address the issue of quality schools by developing tools and procedures for school quality assessment and the implementation strategies. The initiative incorporates various Key Areas (KA), Quality Aspects (QAs) and Quality Indicators (QIs) which in one or other way have been observed to impact the school quality assessment process. KA I Curriculum Design and Planning- QA 1 Institutional Vision (QI 1), KA II Curriculum Transaction and Evaluation – QA 9 Teacher and Teaching (QI 27), KA III Research, Development and Extension- QA 10 Research and Development (QIs 30 & 31), KA V Student Support and Progression – QA 16 Feedback Mechanism (QI 44) and KA VI Organisation and Management - QA 25 Academic Quality and Management (QI 72).

The Institution

The Bharathidasan University was established by the Government of Tamilnadu, India in 1982. The erstwhile postgraduate extension centre of the University of Madras formed the base for the newly created University with the name of the revolutionary Tamil poet Bharathidasan. The University has twenty-six academic departments. The University has always been proactive in incorporating new developments into its programmes, which can be clearly seen from the fact that Bharathidasan University was the first University in India to offer B.Sc in Computer Science.

The Department of Educational Technology, Bharathidasan University was established in 1988 as a Department of Teacher Education for study and research with a focus on the development and application of Educational Technology for teachers of all subjects at all levels. It has been a significant contributor in improving educational practice in partnership with Schools, District Institutes of Education and Training, Colleges of Education, Academic Staff Colleges and other Educational Agencies. Some of the hallmarks of the Department at the international level include the UNESCO assignment on the “Development of an Interactive Multi-media”, the award of the prestigious Commonwealth Fellowship on Educational

Technology and the British Council's Higher Education Link Project.

The major academic roles of the Department of Educational Technology are:

- ◆ To design and implement innovative post-graduate and research courses in teacher education with specialization in the development and application of Educational Technology.
- ◆ To undertake educational research activities related to all aspects of Teacher Education and Educational Technology, and
- ◆ To conduct training programmes for capacity building of Teacher Educators.

Objective of the Practice

The major objectives of the practice are to promote quality consciousness among the stakeholders of the school education system through quality assessment and facilitate quality enhancement of educational provisions at the school level. The expected outcome is a widespread awareness among school heads, teachers, parents, alumni, students and the public, of the need for continuous quality enhancement of education provided and an improved input quality to the education level of the territory for enabling smooth progression of the child from one level to another.

KA I - QA 1 - QI 1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and are compatible with the regional, national and global expectations.

Need Addressed and the Context

The National Policy on Education, 1986 and the Programme of Action 1992 emphasized bringing qualitative improvement in school education. Due to the rapid expansion of the schooling system during the last 60 years and other factors common to any developing country, it's not just access but quality access that has become all the more important. However, no norms have been evolved in India for the assessment and accreditation of schools and there exists absolutely no linkage within the education system i.e. each level works in isolation. The Bharathidasan University School Linkage Cell (BSLC) is an earnest attempt to fill the gap in this regard.

KA III - QA 11 - QI 34:

There exists a preparedness for and incidence of extending service to other academic institutions.

The prevailing traditional mechanism of School Inspection with built-in internal checks will be adequate when the system of school education is relatively smaller. In the Indian school education system there are many private initiatives. In addition to this, the technological and other

socio-economic developments have brought a demand for quality school education with acceptable ‘standards’ to be provided to the large population of students. Thus, the assessment and accreditation of schools perceived and being done on a project basis by the BSLC is an effort to help schools in improving their quality to suit the emerging market and the tertiary education needs.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

Further, the readiness of those leaving these schools to progress to tertiary education has been of great concern as it had a multiplying effect of low quality graduates coming out of the tertiary education system. To encourage and assist school systems in quality improvement the University has established this BSLC

KAIII - QA 10 - QI 31:

The institution has the practice of appraising its work through in-house research, institutionalize innovative practices and undertake formal sponsored research projects relevant in institutional and national contexts

and assigned it with the responsibility of quality assessment of schools. The BSLC is also responsible for creating awareness, quality consciousness among schools and develop quality assessment tools.

Description of the Practice

A school that really understands its strengths, weaknesses, opportunities and threats is likely to be much more successful in carrying out its educational mission than one without such self-awareness. Thus, self-study becomes the most vital part of the assessment process. To analyse the functioning of a school in totality, seven parameters covering every facet of working of a school have been identified and appropriate weightage assigned. The parameters and assigned weightage are reflected in the table given below.

Sl.No	Criteria / Parameters	Weightage
1	Curricular and Co-Curricular Activities	15
2	Instructional Strategies and Evaluation Practices	20
3	Infrastructure and Learning Resources	15
4	Leadership and School Organisation	15
5	Innovations and Healthy Practices	15
6	Student Support Services	10
7	Extension Activities	10
Total Score		100

The most important stages in the assessment and accreditation process of schools are:

- Preparation of a self-study report by the school
- Validation of the above by a Peer-Team comprising senior academic-colleagues in the profession, including retired/present educationists and senior administrators in school education.

As a Pilot Study six schools were assessed and accredited. Due care was taken in the pilot study to ensure that rural schools, government schools and girls' schools are adequately represented. An interaction meeting was conducted with all the stakeholders to refine and validate the self study report questionnaire.

KA II - QA 9 - QI 27:

Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualize and carry out curriculum transactions according to the nature of the enrolled student.

The university is in the process of ensuring inclusion of this in the TE curriculum. With the inclusion of this into the TE programmes the university expects that there will not only be a positive attitude towards quality among the future teachers but it will in the long run be institutionalized and result in building a quality culture.

The Resources

The resources required (physical, financial and human) are:

- ♦ Experts Trained in Quality Assessment and Assurance
- ♦ Training Programme for the School Heads in quality assurance procedures and the preparation of the Self Study Report for external evaluation
- ♦ Data entry and other office Assistance and
- ♦ A part-time coordinator

The Impact/ Outcome

There has been an enthusiastic response from a good number of schools. As many as 45 schools have applied for assessment and accreditation within a month of establishment of the school assessment and accreditation council. The media reports reflect very good and positive responses for this school assessment and accreditation process. The active involvement and enthusiastic participation of all the stake holders

KA VI - QA 25 - QI 72:

The institution has mechanisms to undertake internal academic audit of the programme.

KA V - QA 16 - QI 44:

Institution values feedback and is responsive to feedback not only from within but also from schools and other external stakeholders.

including parents, old students, teachers and students are clear evidences to prove that this healthy practice evolved by the Department of Educational Technology, Bharathidasan University has contributed to generate quality awareness and quality culture at the school level.

Requirements for Adoption and Adaptation

The assessment and accreditation process proposed by BSLC will remain voluntary as it is designed to benefit the students, parents, employers, government, management and society at large. If the managements of the aided and unaided schools volunteer to use the proposed process of assessment and accreditation by BSLC, it shows their legitimate intention to support quality output. An earnest wish is that the major provider of the school education, the State Government will extend support to such a move for quality assurance and enhancement in school education and include this as a compulsory course component in TEPs and for in service training programmes. Further capacity building at school and TEI levels is crucial for undertaking such an activity.

Teacher Capacity Building through Distance Education

Florence Olal-Odur

Jessica Aguti

Editors' Note

Adopting ODL mode for TE enlarges its reach and if organised effectively it makes a very significant contribution particularly in the developing nations. This case study illustrates the Quality Aspects (QAs) and Quality indicators (QIs) in Curriculum Design and Planning very well. There are however good examples of QIs illustrating other Key Areas (KAs) also. It covers KA I Curriculum Design and Planning – QA 1 Institutional Vision (QI 1), QA 2 Process of Curriculum Design (QI 2 & 4), QA 3 Curriculum Content (QIs 5, 6 & 8), QA 4 Curriculum Revision (QIs 10 & 11), KA II Curriculum Transaction and Evaluation- QA 8 Assessment and Evaluation (QI 23), QA 9 Teacher and Teaching (QIs 26, 27 & 28), KA III Research, Development and Extension - QA 10 Research and Development (QIs 29, 30 & 32), KA IV Infrastructure and Learning Resource- QA 12 Physical Infrastructure (QI 35), QA 13 Instructional Infrastructure (QI 37), QA 14 Human Resource (QIs 38, 39 & 40), KA V Student Support and Progression – QA 15 System efficiency (QI 41), QA 16 Feedback Mechanism (QI 44), and KA VI Organization Management- QA 21 Internal Coordination and Management (QI 57), QA 24 Financial Conenance (QI 68).

The Institution

The Makerere University, the oldest and largest University in Uganda was established in 1922 as a technical college. In 1949, it became a University College, linked to the University of London. In 1963, it became a constituent college of the University of East Africa and finally achieved a full University status in 1970. It has since grown and transformed itself into a major player in providing university education in the region with Day, Evening and External Academic programmes being offered at its four Schools, eleven Faculties and five Institutes. By law, the overall managerial and financial control is vested in the University Council, which relies on the Senate for the handling of academic matters. Faculty deans and heads of departments play a big role in the academic administration and organisation. Makerere University operates the Committee system in all its administrative managerial and financial activities. The in-service teacher education programme of Makerere University, referred to as the B. Ed External Degree Programme, is offered by the Institute of Adult and Continuing Education through its Department of Distance Education. The student enrolment in 2006 was

2020 drawn from across the country, with an average annual output of 700 graduates. It targets students with a Diploma or Certificate in Education, employed as teachers, working in government departments of education and with Non-Governmental Organisations that focus on education.

Objective of the Practice

Makerere University launched Bachelor of Education degree in 1991 with the aim of increasing access to University Education to those working in the education service and promoting practice of Distance Education. The programme is expected to enable participants to:

- upgrade the subject matter of their subject areas through acquisition of content and professional knowledge, competencies, skills, values and attitudes to teach and practice those disciplines that would be offered;
- develop an evaluative mind in modern theories of development, thus making them agents of change; and
- acquire and sharpen their research skills.

KA I - QA 1 - QI1:

There is a clear statement of the vision and mission, which reflect the teacher education goals and objectives, and are compatible with the regional, national and global expectations.

The B. Ed programme draws courses from many disciplines and is run on a collaborative arrangement between the Institute of Adult and Continuing Education (IACE) and the School of Education as core partners and the specific academic departments in other units of the University that service the programme.

KA I - QA 2 - QI2:

Curriculum is visualized with adequate and appropriate interfacing of various curricular components including the goals and objectives through active deliberations.

Need Addressed and the Context

Makerere University started as an on-campus course provider. Due to the increased demand for Higher Education; University moved onto offering programmes by distance education. When a needs assessment for distance education programme for higher education was carried out in 1988, the findings revealed that many people were interested in studying while they worked. Bachelor of Education was one of the most sought after programmes. There were ten National Teachers Colleges producing Grade V Teachers graduating with Diploma Certificates in Education. The graduates could

KA I - QA 3 - QI8:

While working out the details of operational curriculum it is ascertained that the theoretical and practical inputs are appropriately dovetailed to provide a comprehensive understanding.

only teach in the lower secondary level and in few Teacher Training colleges. When the National Teachers' colleges introduced Diploma programmes for upgrading primary school teachers, the graduates from these colleges needed career paths in the universities. Research findings revealed that removing teachers from schools to bring them to the universities for full time studies would paralyse education in primary and secondary schools (NCHE 2004). As the distance learning teacher education programme allowed teachers to continue teaching while they studied, gain new knowledge, values and better skills it had a double-pronged advantage. This also enabled training of teachers to be competent to handle primary school, upper secondary school, teacher training colleges as well as work as educational administrators in various units.

KA I - QA 3 - QI 5:

The institution implements the programme with enough flexibility to incorporate emerging concerns and expectations from a teacher.

Description of the Practice

Course planning, design and development are core to ensuring quality in all the academic programmes offered at Makerere University. Approval of the programmes is at different levels that includes the Department; Institute/Faculty/School; Senate Academic Programmes and Library Committee; the full Senate and the University Council. Before any programme is approved it has to be submitted and approved at each of these levels. Needs analysis is expected to have been carried for every new programme to be introduced. Students, who are the users of the curriculum; the world of work that employs the graduates; representatives from the partner faculties and disciplines where the courses are based and interacted are represented in the committees that discuss the curriculum. Where similar programmes exist as internal and external programmes, the curriculum followed is identical except for the structuring which takes into account the needs of the external students. In addition, programmes are expected to meet the changing needs of the Ugandan society and are therefore reviewed regularly any time between 1-3 years. The following Figure illustrates this process.

KA VI - QA 21 - QI 57 :

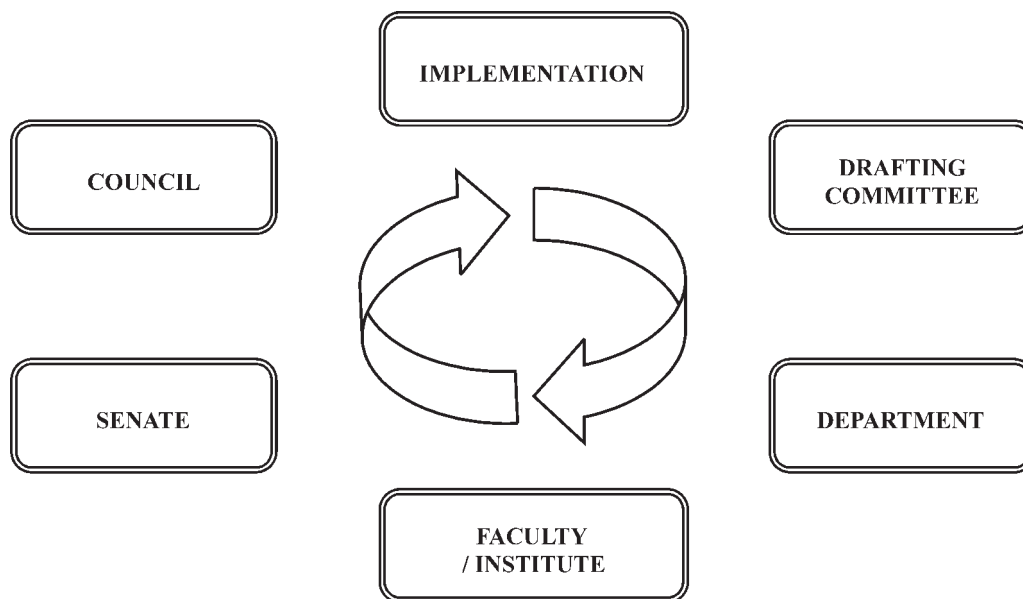
The institution clearly defines the roles and functions of staff involved and they collectively identify activities as well as evolve modalities for implementation.

KA I - QA 4 - QI 10:

The basis for curriculum revision emerges from the need to achieve stated objectives effectively.

KA I - QA 4 - QI 11:

The institution undertakes curriculum revision on a regular basis in the form of continual deliberations on its substance, adequacy and updatedness.



Curriculum Design, Planning and Review Process at Makerere University

The B. Ed External is an interdisciplinary programme which takes 3-6 years to complete. It offers the following core courses: Foundations of Education, Psychology of Education, Curriculum Studies, Development Studies and a Research Project.

KA I - QA 3 - QI 6:

The institution has a practice of time allocation and scheduling for conceptual inputting (theory) through a process of deliberations.

Each student is also expected to register for two teaching subjects depending on the level he/she teaches in the place he/she is working. The teaching subjects are based on the school/college syllabi. They cover a range of arts, performing arts, social science, and science based courses. The design and development of all courses are coordinated by the Department of Distance Education involving the core teaching units of the University from the start and in consultation with the programme beneficiaries and employers of graduates. This is done following guidelines and formats approved by the University Senate. The guideline includes, among others, information about mode of offer, course duration, course load, course content, learning outcomes, expected standards, and course resources. The Academic Registrar, who is the custodian of all academic activities at the University, oversees the entire process.

KA II - QA 9 - QI 28:

Teachers provide a variety of learning experiences including individual, collaborative learning experiences; and there is flexibility in their implementation.

KA V - QA 16 - QI 44:

Institution values feedback and is responsive to feedback not only from within but also from schools and other external stakeholders.

When the courses have been approved by the University Council, the department of Distance Education coordinates the development of the required learning materials drawing the human resources from relevant faculties and departments within and outside the university. The department uses an integration of media to reach out to its students and to support them to study during their courses. The main medium of study being the print; supported by organized face-to-face sessions, students are encouraged to form study groups for discussions and do self-directed reading. Communication is through circulars sent to the study centres, radio, cell-phone, e-mail, and face-to-face contacts. Courses are evaluated by means of continuous assessments and examinations.

KA III - QA 10 - QI 32:

The institution adopts policies and strategies for adequate technology deployment and uses it for learning enhancement.

KA II - QA 8 - QI 23:

The evaluation protocol used by the institution for the programme is comprehensive in its coverage of objectives.

The integration of media in the learning process means that the required human resources have to be trained to make them competent to handle the job. This is done at the course development stage. Course developers are trained and they work in teams to develop the course materials. The said teams constitute distance education specialist, subject specialist, editors for content and language, the graphic designers and typesetters. Where other media like the audio cassettes or computers are used, the said media specialist will work with the team. It takes about a year to complete the material development process, with a great deal of consultations among the members. These consultations serve as checks and balances on the quality of the learning materials. They check on accuracy and relevance of content, style and language of presentation. Additional resource materials are procured from the open market. Tutors are also inducted to facilitate in the distance learning programme.

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

KA II - QA 9 - QI 27:

Teachers take initiatives to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualise and carry out curriculum transactions according to the nature of the student group enrolled

KA III - QA 10 - QI 29 :

Teachers explore better ways of functioning and build upon their experiences systematically.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

Role Description in the Collaboration process

<i>IACE: The Department of Distance Education</i>	<i>The School of Education (SE)</i>	Other Departments
<ul style="list-style-type: none"> • Liaising with the School of Education (SE) in the development and implementation of curricula for B. Ed. • Outsourcing and contracting part-time material developers and course tutors in consultation with SE. • Inducting tutors and students to the distance education mode of study. Contracting and training writers, editors, reviewers, illustrators, typists and facilitating them; ensuring production and distribution of study material to the learners; and procurement of supplementary learning materials. Organising and facilitating tutoring during face-to-face contacts. Organising venues for interface meetings, monitoring tutoring sessions, and processing assignments and tests. • Organising and conducting examinations and processing of examination results in collaboration with the SE. 	<ul style="list-style-type: none"> • The development and implementation of the curriculum in collaboration with IACE. • Identifying course writers and vetters of the learning materials at the request of the Department of Distance Education. • Identifying course tutors to provide tuition during face-to-face sessions on a part-time basis. • Setting assignments and examinations and marking them, and providing academic guidance to the students as necessary. • Carrying out any other academic duty that may be required of them. 	<p>Department of Academic Registrar</p> <ul style="list-style-type: none"> • Overseeing course design and development • Registration of students • Overseeing exams • Graduation • Certification of graduates <p>The Department of the University Bursar</p> <ul style="list-style-type: none"> • Fees payments

<ul style="list-style-type: none"> • Providing support services to the students which include: keeping students informed on all academic matters; providing guidance and counseling services; organizing upcountry tutorials and seminars for students; advocating for the students; and ensuring that they are well catered for while on their studies. • Collaboration with local, regional and international distance education institutions and organizations for the professional development of the distance education programmes of Makerere University. 		
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The Resources

As mentioned already, the B.Ed. external programme is run in collaboration with the teaching academic units. It draws material developers, academic staff/ tutors and other resources from different relevant academic units within and outside the university so long as they meet the minimum requirements of the University. The B. Ed external students have access to all the university facilities including libraries, both at the main campus and in the nine regional centres; free computer facilities from four regional centres and those from other departments at a minimal fee. Most of the costs of the external programmes are, however, met from funds generated from tuition fees charged. This unfortunately is a challenge because sufficient funds are not generated in this way.

KA IV - QA 14 - QI 38:

Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.

KA VI - QA 24 - QI 68:

The fee structure for the programme is transparent with least unexpected add-on expenditure to be incurred by the students.

The Impact/Outcome

Since the B.Ed. external programme is subject to the rules and regulations governing all academic programmes of the university, this has helped ensure standards and clear procedures, which provides legitimacy to the programme. Acceptability of the programme has therefore been achieved because the public is assured that the procedures and processes followed in the external programmes meet University standards. Collaboration in the course planning design development and implementation has enabled the DDE to engage the most competent staff from other faculties and staff; it has also enabled the incorporation of ideas from the students and employers into the curriculum. The training given to material developers and tutors have helped improve their competence in course development and delivery in both the internal and external programmes. Students from other faculties who take similar courses now use the course materials that have been developed for the B. Ed external students. Finally, a small department like DE has in the last nine years graduated over 4000 students who would never have had such opportunities in life. The challenge in the collaboration is using part-timers who are not directly under the IACE. This needs very careful planning in order to get maximum input from them.

KA V - QA 15 - QI 41:

The quality of the product of the program is satisfactory in terms of expectations from the field.

KA IV - QA 14 - QI 40:

Efforts are made to up grade professional competence of not only academic but also administrative staff.

KA IV - QA 14 - QI 39:

Teachers seek to gain professional development through participating in in-house discussions and professional fora.

Requirements for Adoption and Adaptation

Curriculum design, planning and review are highly critical in ensuring quality of the programmes. This needs to be done in a systematic and orderly manner and requires input from a variety of key stakeholders. Involving students and their employers is a sure way of getting feedback from the users and ploughing the feedback into the curriculum. The tutors and material developers also get in contact with the learners and the field; they therefore provide checks and balances in the curriculum especially during the revision process. Thus, they need to be appropriately trained. If these and other requirements could be met with suitable modifications, other institutions could benefit from such practice like this.

Distance Education Inputs in Decentralised Teacher Development

Mohan Menon

Editors' Note

This case study demonstrates the effectively managed networking of several institutions at National, State, District and Sub-district levels in India reflecting a number of Quality Indicators (QIs) under various Key Areas (KAs) and Quality Aspects (QAs). The major aspects covered for integrating distance education and information and communication technology in decentralized ongoing teacher training and school support in India are - KA I Curriculum Design and Planning - QA 3 Curriculum Content (QI 7), KA III Research Development and Extension – QA 10 Research and Development (QIs 29, 30 & 32), KA IV Infrastructure and Learning Resource- QA 13 Instructional Infrastructure (QI 37) QA 14 Human Resource (QI 38), KA VI Organization and Management – QA 21 Internal Coordination and Management (QIs 58, 59, 60 & 61), QA 24 Financial Governance (QIs 67, 69 & 71), QA 25 Academic Quality and Management (QIs 73 & 74).

The Institution

Ongoing professional development of teachers has been a major component of the support provided by the Union (Federal) Government of India and the State Governments especially since education has been brought under the concurrent list of the Indian Constitution. This has been carried out through the institutions under the Union Ministry of Human Resource Development (MHRD) viz., The National Council for Educational Research and Training (NCERT), and its five Regional Institutes of Education (RIEs) and the institutions under state Ministries of Education, viz., the State Councils of Educational Research and Training (SCERTs) and District Institutes of Education and Training (DIETs). This network of resource organizations at national, regional, state and district levels got further support through increased international resources with the initiation of the District Primary Education Programme (DPEP) in 1994 in select number of states. This was later extended to cover all the states and adapted with modifications and inclusions from the learnings of initial implementation and renamed as *Sarva Shiksha Abhiyan (SSA)* meaning “*Education for All*”. Under the DPEP sub-district structures viz., Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs) were created and had states with teacher and school support as the main focus. Distance education and use

of technology for teacher development was initiated and integrated into DPEP in 1996, which was managed at all levels by a network of institutions and with resource support.

Started as a project called DEP-DPEP in 1996 under the IDA supported DPEP, the activities got sustained and extended to all states in 2003. Presently, it is one of the components in India's *Education for All (EFA)* programme called *Sarva Shiksha Abhiyan (SSA)*. The DEP-DPEP now renamed as DEP-SSA, involves "*integrating distance education inputs in decentralized teacher development*" and is identified as the best practice case here.

Objective of the practice

Training of teachers and other personnel was an integral part of DPEP in the context of enhancing students' competence and achievement through improved teaching-learning process. It aims at developing in teachers the pedagogical understanding and skills required for organising effective teaching-learning activities in the classrooms using different and alternative modes of training. Distance education as a mode has been identified to supplement and strengthen the on-going training programmes at the district level. Further, it is also aimed at developing local capacity to develop and deliver DE materials so as to reach out to all teachers is supporting their professional development.

Need Addressed and the Context

In spite of the efforts made by the state governments with support from Union government; in the first three decades of India's independence the progress in universalizing primary education was very slow. An amendment to the Indian Constitution shifting the subject of 'education' from 'state' to 'concurrent' list allowed more direct and much increased resource support from the Union government since late seventies. As a follow-up to the National Policy on Education (1986) and its Programme of Action, Government of India decided to accept international donor support for increasing access and enhancing quality in primary education through the launch of the District Primary Education Programme in 1994. Over 10 per cent of about 2.5 million teachers in the primary schools were untrained and almost all of them did not have adequate opportunity to have regular retraining and professional development support. There were efforts made in the eighties and nineties of the last century by the NCERT, SCERTs and DIETs to provide

KA VI - QA 24 - QI 67:

The institution has adequate financial resources to run the programme without any financial constraints.

KA VI - QA 24 - QI 69:

The sources of income for the programme in particular and the institution in general are legitimate and known.

ongoing training and retraining to teachers through programmes such as the Programme of Orientation of School Teachers (PMOST) for policy orientation and Special Orientation of Primary Teachers (SOPT) for specialised training in subject content and pedagogy. Cascade mode was used for these programmes which turned out to be very weak mainly due to the transmission loss that happened in the process of cascading. Thus it was realized by the NCERT, which planned and organized these programmes at the national level, and the School of Education in the newly established Indira Gandhi National Open University (IGNOU) that there is a need to integrate distance education (DE) mode and information and communication technology (ICT) with the ongoing face to face approach in providing professional development opportunity of good quality to the teachers and other personnel without losing sight of the contextual needs of each state/district.

KA II - QA 9 - QI 27:

Teachers take initiative to learn recent pedagogic techniques, to innovate and continuously seek improvement in their work, visualise and carry out curriculum transactions according to the nature of the student group enrolled.

Description of the practice

The Distance Education Program (DEP) was intended to provide decentralized, district/state based service approach to assist states in developing distance learning plans and programs, conduct annual meetings in each state to review progress, prepare materials for workshops in the DPEP states using a variety of media including print, video, and radio; provide states with hands-on training, finance, production of material, and train persons and institutions in delivery of distance education programs. During Phase I of DPEP, the focus was mainly on carrying out teacher training and teacher development through short term face to face training and school visits using local resource persons and the DIETs, BRCs, and CRCs. It was during the implementation of the DPEP Phase-I that the School of Education, IGNOU along with NCERT as partner proposed to the MHRD through a detailed document the innovative programme of integrating distance education and ICT in the teacher education component of DPEP. After initial delays in getting convinced on the potential of such a programme of developing and implementing distance education programs and support systems, the

KA VI - QA 21 - QI 58:

Functional mechanisms are evolved for ensuring optimization of efficient use of available resources and regular monitoring of the activities at different levels.

KA VI - QA 21 - QI 59:

The institution analyses the information obtained on monitoring and the outcomes are communicated to the concerned leading to corrective measures for improving the effectiveness of activities.

KA VI - QA 21 - QI 60:

The institutional leadership adopts professional management approach.

Government of India contracted the IGNOU, the country's largest and well experienced distance learning institute, to support the program in DPEP in conjunction with the NCERT.

The DEP-DPEP was formulated and structured in two sub-components viz. the national component with its base in IGNOU and the state component in the state DPEP office. A core group of 7 professionals and support staff in the national component managed the activities in the states and each DPEP office in all project states had one professional,

KA IV - QA 14 - QI 38:

Institution has well evolved processes for recruitment and retention of staff as well as judicious process of co-opting staff.

specially appointed for DEP, attached to the teacher development team. The activities included orienting DPEP personnel on DE as applied to teacher education, capacity building of the DIET, BRC and CRC personnel in designing, developing, producing and delivering DL inputs and materials, assistance to states in deciding suitable training strategies; augmenting Education Management Information System (EMIS) in relation to data on training of the target groups; organizing teleconference and other ICT based activities for DIET, BRC and CRC resource persons.

Considering its success in integrating technology and distance learning materials for teacher development with participation of district level teachers and teacher educators in content development the Ministry of Human Resource Development, Government of India decided to continue it beyond the project period. Thus, Distance Education Programme - *Sarva Shiksha Abhiyan* (DEP-SSA) with its focus on strengthening the training of teachers through distance learning mode is a national component for distance education activities under SSA. It is based in IGNOU and is being sustained as a regular function of IGNOU.

The DEP-SSA has reached the stage of producing print, audio and video materials for the use of teachers and other primary education personnel. Appropriate ICT is being used regularly by many states. Several states are utilizing one way video and two way audio interactive tele-conferencing. Two-way audio and two way video tele-conference will now be used on a pilot basis. Radio, a companion medium, which is cheap and has almost 100 per cent coverage in the country, is proposed to be used in a big way for classroom instruction and also for two-way audio interactive

KA IV - QA 13 - QI 37:

The teaching-learning material, ICT facilities, laboratories & learning resource centre necessary for implementing the programme are available and utilised on a regular basis.

KA III - QA 10 - QI 32:

The institution adopts policies and strategies for adequate technology deployment and uses it for learning enhancement.

training programmes for teacher and other primary education personnel. The state of Karnataka has initiated a programme of classroom instruction through radio broadcasting in Gulbarga. This is planned to be replicated in other states.

The Resources

The success of the DEP-DPEP and the sustained version of DEP-SSA is mainly due to three reasons. One, there is continued support from the MHRD as SSA is in the *mission mode*. Two, physical and human resources available in existing institutions at national, regional, state, district and sub-district level is very effectively managed and used for the purpose. Three, the ICT infrastructure in the country has been improving quite substantially enabling use of technology for teacher development. External donor support is still used by GOI for the project, though this is being slowly phased out. Presently the DEP-SSA is supported by MHRD but this will have to change. The IGNOU with its internal resources growing steadily is expected to be able to support the programme entirely from internal funds. This practice also depends upon a well detailed and implemented inter departmental coordination.

KA VI - QA 24 - QI 71 :

The income and expenditure of the institution are subjected to regular internal and external audit.

KA VI - QA 25 - QI 73:

In the management of the programme the institution adopts a participatory approach involving all the employees.

KA VI - QA 25 - QI 74:

The institution uses a management information system for running the programme.

The Impact/Outcome

The component was successful in developing teaching and learning materials using self-learning print, audio cassettes and CDs, providing support for script writers and resource persons, establishing a database of teachers trained, providing materials and support to state level institutions, and teleconferencing. It was successful in catering to the needs of trainers at the block and cluster level, providing physical infrastructure for teleconferencing and internet access to all 18 DPEP states, and using radio broadcast and phone-in programs in three of the DPEP II states of Himachal Pradesh, Karnataka and Maharashtra, which catered to more than 16 million children and teachers in 60,000 schools. Other states used the DEP's radio

KA I - QA 3 - QI 7:

The operational curriculum content is designed in such a way that it has adequate inputs for development of attributes expected in a school teacher.

KA II - QA 9 - QI 26:

Teachers function as a team of efficient professionals.

KA III - QA 10 - QI 30:

Necessary learning material and organizational arrangements are discerned and developed by teachers and utilized as part of regular practice.

broadcast programming on a smaller scale. Overall, this component was rated satisfactory in the Implementation Completion Report of the World Bank in 2003. The positive report led to the extension of support given by GOI and basing it in IGNOU with the new name DEP-SSA. However, its progress after 2003 does not seem to be very encouraging as there is no positive observations about its outcomes in the three Joint Review Missions of SSA conducted by GOI. However, there is great potential for DEP-SSA to make an impact on ongoing professional support to primary teachers and other personnel all over the country.

Requirements for Adoption and Adaptation

The ‘best practice’ discussed here can be adapted in any country with required variations to suit the local contexts and needs. The core of the practice is the ‘integration’ of distance education inputs and technology appropriate to the nature and extent of physical and human resources available, number of teachers/schools to be supported, availability and access to various technologies, etc. The present practice did enjoy adequate resources as it started as an externally funded initiative and thus initially the investment was quite high. However, the operational costs were reasonably low and the practice was cost-effective since it provided ongoing professional support on an average to 5000 teachers per district in a total of over 200 districts during project period which is being extended to all districts (about 500) at present. While it is expected to be cost-effective, unit cost might increase when the number of teachers per block or per district is considerably low.

Annexure I
ABBREVIATIONS

A

ACE	:	Adult and Continuing Education
AIOU	:	Allama Iqbal Open University, Pakistan
AV	:	Audio Visual

B

BASR	:	Board of Advanced Studies and Research
B.Ed	:	Bachelor of Education
BRCs	:	Block Resource Centres
B.Sc. Ed	:	Bachelor of Science Education
BSLC	:	Bharatidasan University School Linkage Cell

C

CA	:	Continuous Assessment
CAC	:	Collaborative Academic Committee
CALT	:	Computer Assisted Learning and Teaching
CASE	:	Centre for Advanced Study in Education, India
CAT	:	Centre for Advance Technologies of University of Regina
CBT	:	Computer Based Training
CBZ	:	Chemistry, Botany, Zoology <i>(Offered as a combination in the courses of study in most Indian institutes)</i>
CEs	:	Colleges of Education
CEE	:	Centre for Environment Education
COE	:	College of Education
COL	:	Commonwealth of Learning
CPG	:	Collaborative Post Graduate Programme in Education
CRCS	:	Cluster Resource Centres
CRTSE	:	Centre for Research and Training in Secondary Education, India

D

DAV	:	Devi Ahilya Vishvavidyalay, India
DE	:	Distance Education
DEBS	:	District Education Board Secretary
DEM	:	Diploma in Education Management

DEP	:	Distance Education Program
DET	:	Department of Education and Training
DGCP	:	Diploma in Guidance, Counselling and Placement
DIET	:	District Institute of Education and Training
DL	:	Distance Learning
DPEP	:	District Primary Education Program
DRCs	:	District Resource Centres
DST	:	Department of Science and Technology
DSTE	:	Department of Secondary Teacher Education

E

EE	:	Environmental Education
EFA	:	Education for all
EMIS	:	Education Management Information System

F

FCT	:	Federal Capital Territory, Nigeria
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G

GOI	:	Government of India
GSM	:	Global System for Mobile Communications

H

HBCSE	:	Homi Bhabha Centre for Science Education
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I

IACE	:	Institute of Adult and Continuing Education
ICT	:	Information and Communication Technology
ID	:	Instructional Designer
IGNOU	:	Indira Gandhi National Open University, India
IOE	:	Institute of Education
ITE	:	Information and Technology Education
IUCN	:	The International Union for the Conservation of Nature and Natural Resources
IVR	:	Interactive Voice Response

K

KA	:	Key area
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L	
LMS	: Learning Management System
LPG	: Lesson Planning Guide
M	
MA	: Master of Arts
MATE	: Master of Arts in Teacher Education
METCA	: Master in Educational Technology-Computer Applications
M.ED	: Master of Education
MHRD	: Ministry of Human Resource Development
MP	: Madhya Pradesh, India
N	
NCERT	: National Council for Educational Research and Training, India
NCTE	: National Council for Teacher Education, India
NET	: National Eligibility Test
NGOs	: Non-Governmental Organizations
NIAS	: National Institute of Advanced Studies, India
NISTCOL	: National In-Service Teachers College, Zambia
NUT	: Nigerian Union of Teachers
O	
ODL	: Open and Distance Learning
OUSL	: Open University of Sri Lanka
P	
PCM	: Physics, Chemistry, Mathematics <i>(Offered as a combination in the courses of study in most Indian institutes)</i>
PEO	: Provincial Education Officers
PLM	: Programmed Learning Material
PMOST	: Programme of Orientation of School Teachers
PTDDL	: Primary Teachers Diploma by Distance Learning
PTTP	: Pivotal Teacher Training Programme
Q	
QA	: Quality Aspect
QAF	: Quality Assurance Framework
QI	: Quality Indicator
R	
RIEs	: Regional Institutes of Education, India

S

SA	:	South Africa
SAIDE	:	South African Institute of Distance Education
SBP	:	School Based Practice
SBL	:	Scenario-Based Learning
SCERTs	:	State Councils of Educational Research and Training, India
SOE	:	School of Education
SOPT	:	Special Orientation of Primary Teachers
SPEBs	:	State Primary Education Boards, India
SSA	:	Sarva Siksha Abhiyan
STD	:	Secondary Teachers Diploma
STED	:	Secondary Teacher Education Department

T

TAG	:	Teaching Analysis Guide
TC	:	Theory Checkup
TCII	:	Grade Two Teachers Certificate
TDIL	:	Technology Development in Indian Languages
TE	:	Teacher Education
TISS	:	Tata Institute of Social Sciences, India
TRC	:	Teachers Registration Council

U

UBE	:	Universal Basic Education
UGC	:	University Grants Commission, India
UNEP	:	United Nations Environment Programme
UNESCO	:	United Nations Educational, Scientific and Cultural Organization
UOR	:	University of Regina, Canada
UP	:	University of Pretoria

V

VVOB	:	Flemish Association for Developmental Co-operation and Technical Assistance.
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W

WBP	:	Workshop Based Practice
WBT	:	Web Based Training
WS	:	Worksheet
WWF	:	World Wild Life Fund

Annexure - II

Best Practice - Case Study Structure used by Participating Institutions for Writing the Cases

- 1. The Institution** - A short write up on the institution
- 2. Objective of the Practice** – The goals and objective of the practice.
- 3. Need Addressed and the Context** – Descriptive details on why and how the institution choose to work / include this specific practice/area.
- 4. Description of the Practice** – Details of planning and implementation.
- 5. The Resources** – Resources (financial and human) required (existing and/or additional) for implementing the practice.
- 6. The Impact/Outcome** – Improvements that resulted out of the practice and any drawbacks or hurdles faced while implementing the practice . In cases where a case study on initiatives withdrawn is being written, it includes the reasons for withdrawal and why it did not work etc.
- 7. Requirements for Adoption and Adaptation** – A suggestive note based on the experiences as to how other institutions can use and contextualize the practice.

Annexure - III
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