

Guidelines
to support the development of proposals
for the restructuring and revitalization of DIETs

draft as on 13 February 2012

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Executive Summary

The District Institutes of Education and Training (henceforth DIETs) were envisioned in the National Policy of Education, 1986 to play a meaningful role in the state education system. However this has not happened.

There is need for all states to reformulate the vision of this institution so that they can contribute to fulfilling the RtE in matters relating to continuous teacher professional development, school support and improvement.

The guidelines in this document are presented to enable States to evolve a functioning structure for the DIETs. These guidelines direct States to take a fresh look at these District institutions and evolve appropriate roles for them. They should support the state to develop the Annual Work Plan and the Perspective Plan (5 year plan). The guidelines are indicative and are more in the nature of suggestions and have been organized around the themes of Vision and Identity; Key activities and Programmes; Integrating ICTs to support new models of teacher education, Structure and Financing; Systemic Linkages and Personnel for the DIETs.

The focus of the DIETs informs the overall institutional vision, design, expectations and functions and becomes the basis of its relationship to other institutions. The possible institutional focus areas for DIETs could be (a) Continuous teacher professional development or (b) school improvement. Both are important and linked to each other.

Further, each DIET requires an independent ‘institutional’ identity and character with a focus on academic excellence. Each DIET must be treated as a unique, independent institution, and not as one among many implementing arms of the State at the District.

DIETs must be supported with finances, personnel and autonomy needed to innovate and provide high quality elementary teacher pre-service education programmes. Certain DIETs may also be chosen to provide the four-year B.El.Ed programme. DIETs have a crucial role, especially in states where there is a backlog of untrained teachers in the school system. DIETs capacities to use ICTs to create demand based pre-service and in-service teacher professional development models, need to be developed. This includes creating the required ICT infrastructure, including for support and maintenance, building faculty capabilities to use variety of digital tools and methods for designing and offering programs to teachers.

DIETs can design and offer in-service education for teachers and for teacher educators. Courses of short and long duration designed to develop either specific skills or areas of interest could be offered to teachers over a year. DIETs could make these more effective using Training Management Systems.

Among other activities, DIETS could organize professional forums to offer a motivational environment of interaction with people and ideas and provide opportunities for exposure, learning and discussion of different perspectives, experiences, and experiments of teaching-learning processes, material development and of training. A Congress of DIETs could also be held twice a year. It could become a platform for sharing research undertaken, innovative pedagogies and generating a community of teachers and teachers educators. Forums such as subject clubs extended into and supplemented with virtual Virtual forums with mailing lists and portal based interactions can enable educators work as collaborative communities and create a rich learning environment for resource creation and sharing.

Each DIET can develop and run Educational Resource Centers- an enhanced library with physical and digital resources, created and organized to give easy access to teachers, teacher educators and district education planners, the range of materials and resources they require for their professional practice.

In terms of structure, DIETs need to be empowered to exercise autonomy and to evolve district focus in design of programmes. Empowering DIETs to assert their autonomy would involve creating a Council/Programme Advisory Committee/Advisory Board for the DIET, with a District functionary at the helm. However, to achieve quick decision making, the PAC could have a smaller subset forming the Executive Committee (EC).

The Annual Work Plan (AWP) of the DIET needs to emerge as an activity signifying the autonomous character of the Institution and also providing it with focus for the year. The AWP could serve to integrate and focus the DIET on District requirements and reflect its own special role and how it visualizes making a difference to schools, teachers and children.

The DIETs need to prepare a Perspective Plan – a long term plan which provides the vision of the DIET, its focus areas and the roadmap for the next 5 years. The Plan provides a sense of direction to the DIET and would inform the AWP. The Perspective Plan may be revised every year based on the performance of the DIET and the happenings in the district.

DIETs require much higher investments in their infrastructure and facilities for faculty and students in order to emerge as strong centers for teacher professional development and school improvement. Timely flow of funds is crucial to restoring a basic functionality to the DIETs. This would support DIETs in discharging their routine activities in a reasonable fashion rather than resorting to inefficient overwork in efforts to ‘complete budgets’ before March, the accounting year deadline.

The insularity of DIETs needs to be broken. Formal linkages with district teacher associations and other centers for teacher development such as B.Ed and D.Ed colleges and University Department of Education would be necessary for DIETs.

The DIET faculty need to develop appropriate expertise—in subject areas and in research and practice. It is crucial to have clarity on whether DIET faculty should be doing academic work themselves or be administrators of academic work? Also, establishing a cadre of teacher educators could help in resolving the constant moving of people from academic positions to the more lucrative administrative ones.

DIETS also have an additional problem of being chronically understaffed which needs to be resolved quickly. Capacity building of DIET faculty needs to be built essentially on the imagination of those working in the field, nurturing autonomy and search for betterment and growth. Capacity building must therefore focus on providing various relevant opportunities for development they require for their professional practice.

The structure of the DIET flows out of its vision, mandate and relationship to other institutions. Depending on the activities, the DIETs could have flexible arrangements called working groups rather than pre-formed ‘wings’ or ‘units’. People and activities within the DIET may also be organized on different and non permanent basis, with working organizational groupings and responsibilities allocated to individuals and groups. Hence, all types of educational expertise and specializations need to be available within the institution. A few options have been explored.

Finally, certain performance and process indicators have been developed which could help the DIET assess its own performance and also help the state bodies rank the DIETs in terms of support needed.

1 Introduction

1.1 The District Institutes of Education and Training (henceforth DIETs) were envisioned in the National Policy of Education, 1986, and were created by the Government of India, Ministry of Human Resource Development in the early 1990s to strengthen elementary education and support the decentralization of education to the district level. They were created through a centrally supported scheme and following the guidelines suggested in the 'pink book' (Government of India, 1989).

1.2 The Right to Education (RtE) directs the state the need to invest in quality schools—through adequate and child friendly infrastructure, curriculum and school practices. The RtE mandates qualified teachers who are able to engage in providing education which supports the development of all children. The role of the teacher is crucial to achieving the inclusion and success of children who enter into schools in age-appropriate classes, children of various marginal and disadvantaged/ under-privileged communities and children with special educational needs. Achieving the RtE requires urgent investment in developing good teachers. The Sarva Siksha Abhiyan as the vehicle for the RtE places the onus of school support and improvement on the BRCs and CRCs, and the state to strengthen the existing DIETs, establish new ones and fill up the vacant posts (Bordia Committee Report). The Rashtriya Madhyamik Siksha Abhiyan (RMSA) requires DIETs to play a key role at the District level in extending their mandate from elementary to secondary education. Both SSA and RMSA require district level academic planning and monitoring. DIETs need to support District and Sub-district institutions, activities and personnel. They are expected to work along with CTEs and IASEs in coordination with the SCERTs to achieve quality in all aspects of teacher professional development and school support and improvement.

1.3 The challenges for SCERTs, DIETs, IASEs and CTEs, the BRCs and CRCs, the Institutions of Higher Education, the Universities, colleges and teacher education institutions, and Non Government Agencies (NGOs) include:

1. Enabling all teachers in schools to be qualified as per the requirements of the RtE, 2009.
2. Reforming and renewing curricula for Pre-Service Teacher Education (PSTE) at the elementary and secondary education levels
3. Regulating the quality of PSTE in all institutions
4. Improving the quality of In-Service Teacher Education (ISTE) and directing it towards overall teacher professional development and school improvement.
5. Overseeing the quality of school education to support equity and encourage community involvement.
6. Developing the professionalism and capacity of teacher educators
7. Reforming School Curricula, pedagogy, assessment and examination

These institutions need to work in coordinated and complimentary ways. The work of DIETs—

their purposes and functions—need to be located within this broader mandate of reform requirements.

1.4 Although the DIET is located at an important level of decentralization (the District), yet in very few states has it actually succeeded in playing a meaningful role. By and large, DIETs have remained marginal to the key activities of the states in teacher professional development and school improvement; they are poorly integrated into the States systems. The multiple tasks linked to departmental programmes with different foci draw the DIET in different directions and produce divergent institutional goals. Furthermore, outdated institutional structures also create expectations regarding work which are not realized or realizable, and contribute to a sense of dysfunctionality. Administrative tasks assigned to the DIET, although they keep the DIET connected to the wider state machinery, they take away institutional time and energy in routinised work that lack academic purpose.

1.5 There is need for all states to reformulate the vision of this institution so that they can contribute to fulfilling the RtE in matters relating to continuous teacher professional development, school support and improvement. This requires the states to consider the following :

1. Vision and Identity

- 1.1. What should be the basic institutional objective and core constituency of a DIET?
- 1.2. How can the DIET develop its own identity as part of the state educational machinery?
- 1.3. How can the DIET's vision and functions be aligned with the State's education policy thrusts, and State institutional structures?

2. Key Activities and Programmmes

- 2.1. What are the academic and administrative functions of the DIET?
- 2.2. What are the concerns of PSTE, ISTE and school quality which the DIET can address?
- 2.3. How can ICT be used to support the new models of teacher education?
- 2.4. How can DIETs use ICTs effectively to ensure retention of institutional memory for supporting institutional learning and institutional development?

3. Organizational Structure, functioning and Infrastructure

- 3.1. What organizational structure and functioning will best support aims of the DIET?
- 3.2. What financial arrangements will support the functioning and aims of the DIET?
- 3.3. What are the practices and how can ICT be used to ensure that there is continuity of institutional memory to maintain focus and purpose

4. Systemic Linkages

- 4.1. How can DIETs strengthen their relationships with other institutions at the state and the

district level? How can DIETs mesh with various central and state education projects and missions?

- 4.2. How can DIETs network with other institutions for sharing and building communities of practice?
- 4.3. What kinds of collaboration and involvements of academic and non-government agencies can be forged?

5. Personnel

- 5.1. How can faculty with adequate training and expertise especially in areas like teacher education, elementary education or research be found and/or nurtured?
- 5.2. How can strong leadership be brought in and kept stable?
- 5.3. How can the overall low desire for the posting (being academic rather than administrative) and frequent transfers out of DIETs resulting in high turn-over and vacant posts be minimized?
- 5.4. What recruitment and personnel policies would best support DIETs and what kind of may be required?
- 5.5. How can continuous high quality faculty development be instituted?

6. Operationalising the vision

- 6.1 What are the preparatory deliberations and activities and structures that need to be put into place, and consensus that needs to be built at the State level, in order to move towards institutional re-formation?.
- 6.2 What are the priority areas and phases of development?
- 6.3 What are these catalyses and support structures and collaborations that are needed?
- 6.4 What needs to be put in place in order to sustain the direction and momentum of the reform effort through the 12th plan period and afterwards?

1.6 The guidelines presented in this document brings together thinking on these institutions that has evolved through a number of National, State and International studies and consultations (see annexure A for a list of these some of these studies and relevant documents). It takes into account the scenario that exists today in terms of new and emerging institutions at the District, Sub-District and State and National levels, and reviews those functions of the earlier visualized functions of the DIET that are not longer relevant on account of the changed institutional context. The focus should be on bringing teachers back to the Centre Stage.

1.7 The guidelines are presented to enable States to deliberate upon the questions highlighted above and evolve a functioning structure for the DIETs. Each state, based on its specific requirements and structures, should evolve a comprehensive plan of how DIETs can be revitalized and focussed to contribute to meeting educational requirements . These guidelines

direct States to take a fresh look at these District institutions, and evolve appropriate roles for them, and make suggestions in this regard. They support State to break away from the 'status-quo' and deliberate and articulate the institutional vision for DIETs in relation to the States education plans and the roles of different resource institutions within the same. It is intended that States would use these guidelines and develop a perspective plan for the next five years, and within this formulate the annual work plan based on which they can receive grants.

2. Institutional Vision and Identity

2.1 The vision for the DIETs that was articulated in the NPE 1986(modified in 1992) was for a strong district institution that would support preservice and inservice work with teachers (clause 9.6) at the elementary education level.

“Within a multi-level framework of educational development, central ,state, district and local agencies will participate in planning, co-ordination, monitoring and evaluation” (clause 10.6).

2.2 To support the universalisation of quality education and achieve quality in adult and life long education, DIETs were visualized as a way to infuse the system with the following essential inputs:

1. Provision of Pre-service and In-service teacher Education Programmes.
2. Organizing District level and State Level Educational Researches on issues pertaining to enrollment, retention, achievement, gender parity, proficiency and Drop outs.
3. Facilitating Collaborative Action Researches to enable practising teachers to address class room issues.
4. Scouting Innovative Practices of Primary/Upper Primary teachers and disseminating them among their colleagues by organizing periodical District level Seminars and releasing News bulletins which carry information on Innovative class room processes.
5. Providing Resource Support to Non-Formal Education Sector by extending DIET expertise in developing curriculum and supplementary Learning Materials to adult learners
6. Designing and developing trainer Manuals for Anganwadi workers and for addressing Social concerns such as Crisis and Disaster Management, Gender Sensitivity ,Leadership Manual for School Heads etc.
 - (i) Finance and physical resources (e.g. building and equipment).
 - (ii) Full involvement of the community.
 - (iii) Planning and management.
 - (iv) Appropriate curricula, text books and pedagogical inputs.
 - (v) Suitable strategies (including incentives) for learners from disadvantaged groups so as to provide them equal educational opportunity in real terms.
 - (vi) Mentoring dedicated and competent teachers and instructors.
 - (vii) Suitable academic and resource support to the teachers/instructors which would comprise :-
 - (a) Training, guidance and advice.
 - (b) Development of locally relevant teaching – learning material and teaching aids,
 - (c) Evaluation, and
 - (d) Field studies, action research and experimentation for tackling specific local

problems encountered in achieving goals.
(GOI, 1989: section 1.5)

This vision is also important and central to the achievement of the Right to Education.

2.3 The Right to Education is a right to quality education, which requires the state to invest in, regulate and monitor school quality, curriculum and pedagogy, and the provision of well educated professional teachers. The design of the Sarva Siksha Abhiyan (SSA), with the outreach activities that take place through the Block and Cluster Resource Centres, requires a District Institution that can strengthen and oversee inservice work with teachers and give overall direction and support to Block level school improvement initiatives. “DEO ... would liaise with DIET and in cooperation with that Institute oversee the functioning of BRCs and CRCs” (Bordia Committee Report p.82). The design of the Rashtriya MADhyamik Siksha Abhiyan (RMSA) also requires district support and the “success of the Madhyamik Shiksha Mission also depends on the availability of necessary infrastructure, facilities and a range of pedagogic equipment in teacher training institutions such as DIETs, CTEs and IASEs” (clause 5.12, RMSA). The development of the public education system in each state, and the role of the centrally supported SSA and RMSA in achieving this, call for specific academic interventions and supports to be coordinated and conducted at the district level. A vibrant academic resource institution at the District level would be an asset for a variety of activities at the District.

2.4 Teachers and Teaching are central to School Quality. The RtE mandates providing access to quality education and professionally trained teachers for all schools. The 12th plan visualizes giving a boost to teacher education by renewing efforts to bring quality into professional services for teachers, teacher preperation and teacher education: preservice and inservice teacher education at elementary (DEd/BEIEd) and secondary (BEEd) levels. Teacher Education and Teacher Professional Development (inservice and preservice) are not stand alone activities but have a direct relationship to the school and education quality, which is a Constitutional Right of Every Child. While the National Curriculum Framework for School Education 2005 provides a vision for quality education in schools, the National Curriculum Framework for Teacher Education (NCFTE-2009) provides for a complimentary vision for quality pre-service and in-service teacher education. Ensuring the Right to Education of every child requires that State institutions support both school improvement and teacher development.

2.5 DIETs in conjunction with other institutions at the State, District and Sub-district levels need to play *complementary and coordinated roles* so that overall the needs of schools and teachers are met without suboptimal and repetitive, overlapping functions. Distinctiveness, clarity of focus and forms of action are essential for institutional identity internally and to form the basis of coordination with other institutions.

2.5 The DIETs runs under a central scheme, with budget provisioning from the Central plan and with the expectation that States will ‘own’, realize and implement the vision. The scheme

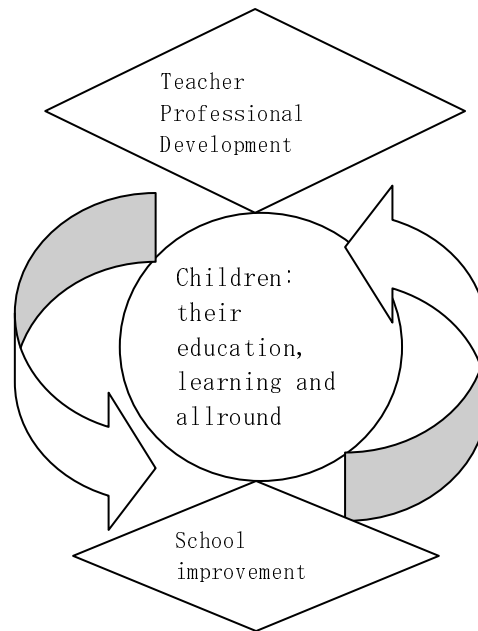
which began in the 8th plan period has been renewed over several periods. The continuation of the scheme in the 12th plan signals brings with it the urgent requirement to revitalize and expand teacher education and is an indication of the Centres recognition of the central importance of teacher education and teacher professional development. The Centre and States need to work together to achieve a fully functional institution at the District level, with requisite infrastructure, personnel and planning and appropriate activities. In order to develop a mutually supportive relationship towards the institutional development of the DIETs as envisaged in the 12th plan, the following processes and structures and activities will be supported and monitored:

1. State level visioning leading to DIET design in relation to other institutions such as SCERT, IASEs and CTEs, with clarity of purposes leading to flexibilities.
2. Support for development of SCERTs to enhance academic profile and functions and inter-linkages with other institutions.
3. Enhancement of institutional autonomy and selection process for DIET principal
4. Financial autonomy and operations with a single annual work plan into which all budgets that are made available to the DIET are built in.
5. Appointment of appropriate faculty along with support for faculty development of DIET and SCERT faculty to be conducted by Institutes of Higher Education.
6. Support for bringing quality in all aspects of teacher professional development programmes both inservice and pre-service, and for institutional infrastructural development to support this.
7. Indicators that can be used to indicate desirable development and monitor progress.
8. Sharing of ideas and practices and involvement with states in planning and execution through a centrally supported website and journals for communication.

2.6 The DIET requires an overall academic focus area which would form its key purpose, based on which its larger role in the landscape of educational practice can take shape. This would also enable the DIET to converge its various activities or plans, design its own AWP, and build collaborative linkages with other organizations. .

2.7 The overall institutional design, expectations and functions should follow from its focus, and become the basis of its relationship to other institutions. The possible institutional focus areas could be (a) continuous teacher professional development or (b) school improvement. Both are important and linked to each other, and converge as they bring back the focus on teachers as central to school quality.

Depending on the approach that the state takes to its systemic reform, and the personnel and structures it has in place, *either* of these two foci could be chosen as a starting point to think through how the DIET should be imagined. If the focus would have consequences for the structure and functioning of the institution, informing the personnel policy which is best suited and also how it should relate to other institutions.



2.7.1 The teacher professional development focus: Most DIETs have a reasonable track record in continuous teacher professional development—inservice and preservice. DIETs could, therefore, develop into institutions of excellence for teacher education at the District level. This would also provide the DIETs a much needed positive sense of achievement and a unique focus activity. As high quality teacher education requires engagement with schools and the development of teacher identity and practices that can contribute to school quality, TPD focus can synergise school improvement.

A key danger is that teacher professional development can lead to the institution isolating itself, and this should be safeguarded against.

As the lead teacher education institution at the district level, the DIET could.

- Offer high quality teacher education especially at the elementary level.stimulate and monitor the conduct of high quality teacher education curriculum internally and in other institutions of the district.
- initiate high quality distance and blended learning programmes of teacher development which is particularly needed in states where there is need for qualified teachers as mandated by RtE.

- Provide different types of fora for interaction and resource support to teachers and teacher educators.
- Provide school leadership training and for a for school leadership.
- Provide quality inservice programmes for teachers and also coordinate the requirements of inservice training for teachers to be provided by the DIET itself and a net work of other institutions, including the BRCs. These in particular would be linked to and in response to the school improvement requirements of the district.

2.7.2 **School improvement** could also provide the necessary overall institutional focus and direction. In such an approach, the DIET may address itself to both mapping and assessing school quality and form a part of overall strategies for school improvement. DIETs could play multiple roles in this, including development assessment, the use of monitoring tools, needs assessment analysis, delivery of training and followup for purposes of support and impact assessment. Such an approach and role for the DIET would require tight coupling with the BRCs and CRCs. It would also require a well coordinated role for DIETs within District plans for school improvement. Additional concerns would be that of over burden,, of duplication of mandates (with other institutions), or becoming a line function of the department, and of losing focus on teacher education, especially preservice teacher education.

2.7.3 With RMSA also acquiring importance, Teacher education will and should be an important facet of school improvement, but it would seek its design and justification with respect to the larger agenda of school improvement. Indeed, if teacher education in the form of trainings is not felt to be necessary, and instead a school based mentoring and a teacher professional network is felt more relevant, then the in-service teacher education programmes could be discontinued.

2.8 It is essential that DIETs retain and strengthen their focus on elementary education. In addition, DIETs need to develop ways of strengthening their contribution to RMSA related in-service trainings for the secondary schools of the district. This may be especially necessary where there are insufficient university Departments/IASEs/CTEs. However, such an expansion of role needs to be supported with sufficient faculty and should not be at the expense of the focus on elementary education.

2.9 There is need to extend teacher education work into special education as well and this can be built into the DIETs wherever it is being considered.

2.10 The inclusion of pre-school education is important and the professional development of teachers for anganwadis/balwadis should be integrated into the DIET so that there is more optimal use of institutional facilities and expertise and these programmes get a much needed educational focus. The Anganwadi Training Centres which are being proposed for the district could be incorporated into DIETs.

2.11 The structure of the DIET should flow out of its vision and mandate and reflect the most optimal organization of its faculty and tasks that it is expected to perform. It could have some permanent structures of faculty affiliation which are based on faculty expertise areas—e.g. language group, mathematics and science group, social science group, arts and physical education group. Activities and programmes, e.g. PSTE, quality assessment and monitoring, designing a special intervention for particular schools, etc could be the responsibility of coordination groups or working groups who are constituted by the DIET Principal, on an annual basis or as and when new tasks emerge, rather than being permanent groups. These groups of one, two or three members (depending on the size of the responsibility) who are given the responsibility, could draw expertise from across the DIET and other institutions for the purpose of executing these tasks. Each such working group would have administrative support.

2.12 Flexibility of the institutional structure is important so that the internal organization of the DIET could follow from (a) the concerns of personnel and their qualifications/areas of expertise, and (b) the activities that derive from the specific DIET's mandate as an autonomous institutional body. Focus on district specific needs and issues would also be possible with such flexibility. E.g. a Wing/Group/Centre to focus on education of children whose parents migrate seasonally or to focus on concerns of educating children from tribal communities. A more detailed discussion regarding possible organizational structures is taken up in a later section.

2.13 Many States have not made alterations in the DIET structure on the grounds that this is (a) not permissible by the MHRD or (b) it would not work as the financial norms and guidelines are based on the 1989 guidelines or (c) not necessary as you can have any structure and still manage to do the work as desired with cooperation across wings. This inertia may be done away with. The current structure of seven permanent wings may not lead to optimal organization and deployment of faculty. Some of the wings functions are also not carried out in the DIET (e.g. curriculum, etc.) and some such as ET cannot be coordinated by a few as this would be used by all groups.

2.14 There is no need to take a 'one size/one model should work for all'. States are expected to propose a model that would suit the state and district specificities and *requirements*. It is emphasized here that all states need to appraise the Centre on the plan(s) they propose for DIETs along with its rationale at the time of submitting proposals, whether they decide to change the model or keep it to the current one, there must be a clear rationale on how the model and structure enables it to meet the organization's role most effectively.

A more detailed discussion of the types of activities that a DIET could carry out are discussed in the next chapter. These activities could be chosen so that the mandate of the DIET is unique, giving the institution its focus and identity, setting up clearly the tasks for which it is responsible and hence also accountable and complementing work carried out in other institutions of the state,

DIETs too should present their visions towards which they will work for the next five years to the Academic Council. They could make a Perspective Plan which covers with goals and milestones for the next five years and a physical and financial Annual Work Plan.

2.15 Each DIET requires an independent ‘institutional’ identity and character with a focus on academic excellence. Each DIET must be treated as a unique, independent institution, and not as one among many implementing arms of the State at the District level. For this, there is need for

- (i) Agreement on and long term commitment to the role that DIET is expected to play within the State Education Department.
- (ii) Providing adequate foundation for the development of an Institution including:
 - infrastructure suitable to the scope of the institution as a District Training and Resource Center.
 - appointment of the Principal through selection with adequate tenure and autonomy to develop the institution.
 - recruitment of dedicated faculty of requisite/desired areas of expertise and to the full complement..
 - recruitment of field support faculty and administrative staff of requisite/desired numbers.
- (iii) Enabling each DIET to develop its own character and focus areas through support for an environment of autonomy in academic areas, financial areas, and personnel policy.
- (iv) Permitting and even encouraging institutional variation among DIETs and with only a few large-scale centrally designed programmes to be monitored
- (v) Encouraging Alumni Support for providing a sense of direction, guidance and feedback.
- (vi) Developing indicators for effectiveness of PSTE and ISTE programs conducted by the DIET
- (vii) Developing guidelines based on which the DIET can establish cooperation and collaboration with other institutions both government, non government and the university.
- (viii) Empowering the principal of the DIET to take initiative in ensuring that it is able to meet its mandate.

3. KEY ACTIVITIES AND PROGRAMMES

3.1 The Core work of the DIETs:

- A. Pre-Service Teacher Education (Elementary).
- B. In-Service Teacher Education (Elementary and Secondary)
- C. Designing interventions for direct support to schools and work with special groups in the District (School Improvement and Action Research)
- D. Studies on status of education, education assessment, and documentation (Research and Documentation).
- E. Annual academic plan and periodic reviews, for the district, in consultation with various related organizations and stakeholders.
- F. Running an effective Resource Centre with outreach, in conjunction with BRCs and CRCs.

3.2 Core areas elaborated:

(A) Pre-service Teacher Education (Elementary)

- a) Conducting high quality PSTE programmes for the education of elementary teachers.
- b) Organising and supporting the organisation of effective professional fora for teachers at the District and block and cluster levels
- c) Establishing fora teacher educators, teachers and student teachers at the District level. Supporting and monitoring the conduct of PSTE programmes offered by other institutions in the district.
- d) Faculty Development programmes for PSTE institutions—teacher educators.

(B) Inservice Teacher Education (Elementary and Secondary) Strengthening Teacher Education in the District

- a) Preparing teacher educators by conducting ISTE programmes for teacher educators, and master resource persons from among teachers, and capacity building of BRPs and CRPs, and empanelment of MRPs.
- b) Conducting high quality ISTE for School Heads
- c) Developing modules for ISTE to be conducted at BRCs and whetting, reviewing and approving modules developed by other agencies to be offered to teachers of the district.
- d) Monitoring the quality of ISTE for teacher and its contribution to TPD and school improvement through quantitative and qualitative studies, the use of the training management system.
- e) Modeling and Overseeing the conduct of high quality ISTE programmes and school leadership programmes

(C) Designing Interventions and Direct work with Schools and School improvement

- a) Designing and implementing district specific intervention programmes for specific

groups of schools/for specific children groups in action research modes, with effective documentation and analysis.

- b) Working with the BRCs and CRPs on the school improvement strategies.
- c) Overseeing the academic review of schools for quality under the Right to Education, and extending to preschool and secondary education.
- d) Oversee children's learning quality as evidence in various assessments.
- e) Oversee the school improvement plans of the BRCs.
- f) Orientation and training of school monitoring committees and work with community/community empowerment.

(D) Studies on Education etc. (Research and Development)

- a) Regular review of innovations
- b) Research and development in collaboration with NGOs, University department and other DIETs, and action research with teachers.
- c) Systematic assessment of SSA programs – (more detail than teacher attendance)
- d) Collecting and Analysing data about school functioning

(E) Annual Academic Planning and Reviews (Governance/ Supervision etc.)

- e) Generating Annual Work Plans and District Annual Reports
- f) Supporting the development of the academic component of district education plans for SSA and RMSA, etc.
- g) Review the availability of teachers for various requirements in the District, review recruitments through the TET in the District and suggest strategies for the recruitment, retention and upgradation of capabilities of teachers in the District.
- h) Reviewing interventions and work of other NGOs etc in the District.

(F) Resource Center

- a. Providing an effective education resource centre for the District and the Blocks, with relevant materials (print, audio, video) and access to information through Internet and network with experts for use by teachers, teacher educators and student teachers.
- b. Documenting initiatives and local publications
- c. Development and pooling of locally relevant materials and practices
- d. Encouraging reading and discussion within diets; Faculty seminars/forum for peer academic culture

3.2.1 These focus areas have been visualised based on NCF 2005, NCFTE-2009, The Reflective Teacher (a manual for inservice training) NCERT, 2007, the operational guidelines for BRC-CRCs (GOI, 2010) the EFC (GOI, 2011) and other such recent documents that have been providing ideas regarding the directions for teacher professional development work.

3.3 Pre-service teacher education (PSTE)

3.3.1 The SCERT of all states must initiate a review and reformulation of the elementary teacher education curriculum and urge Universities to review the BEd curriculum in the light of the NCFTE, 2009. DIETs must contribute to the revitalization of PSTE through their own DEd program by applying quality standards in all respects. This includes rigorous admission procedures, preference wherever applicable to students from SC, ST and minority groups, recruiting and retaining qualified faculty, having full number of teacher days, maintaining suitable infrastructure including a well functioning resource centre, and using good resource materials and textbooks for learning, and a well equipped ICT lab. An annual educational visit (generally outside the state) must be an integral part of the programme along with multiple field visits close by. School practical experience should be well coordinated with opportunities for reflection. The programme could be supported by a learning management system which enables blended learning, extends interactions and allows for sharing information and supporting assessments. Apart from the terminal examinations conducted by the State Board, continuous and comprehensive internal evaluation should be carried out by the DIET.

DIETs must play a leading role in implementing curricula reformed in the light of NCFTE 2009. The inclusion of the following kinds of learning opportunities for student-teachers would be the mark of such a revised curriculum:

- Observe and engage with children, communicate with and relate to children
- Understand the self and others, one's beliefs, assumptions, emotions and aspirations; develop the capacity for self-analysis, self-evaluation, adaptability, flexibility, creativity and innovation.
- Develop habits and the capacity for self-directed learning, have time to think, reflect, assimilate and articulate new ideas; be self-critical and to work collaboratively in groups.
- Engage with subject content, examine disciplinary knowledge and social realities, relate subject matter with the social milieu of learners and develop critical thinking.
- Develop professional skills in pedagogy, observation, documentation, analysis and interpretation, drama, craft, story-telling and reflective inquiry.

The PSTE programme should empower students to address themselves creatively and sensitively to a range of issues that will arise in classrooms and enable the success of a diverse student population including first generation school goers, in the spirit of the Right to Education. The experiences of PSTE student-teachers should be enriched with opportunities to participate in action research and documentation activities of the DIET. Student-teachers can contribute towards documenting local knowledge resources such as local histories, geography, the local flora and fauna, stories and folk lore, and creating a range of digital resources using ICT etc. Appreciating local language forms and making the classroom multilingual would also be a valuable effort. This would contribute to their classroom pedagogy and also enrich the resource centre.

3.3.2 The Block Institutes of Teacher Education (BITE) are proposed as additional institutions for PSTE in blocks which have a higher percentages of underprivileged communities. These BITEs can be expected to have larger percentages of students from these communities, who are training to be teachers. The BITEs will have additional responsibility for a high quality programme of PSTE in these blocks and faculty will need to be well qualified to provide such inputs. BITEs will need additional resources such as an effective resource centre. They will also need to be empowered to innovate in the curriculum so that the PSTE empowers student-teachers. Where Sub-DIETs are functional they could be upgraded to serve as BITEs.

3.3.3 DIETs will need to play a supervision and support role with regards other TEIs in the district. They will need to extend the resource centre as well as faculty development opportunities to teacher educators in other institutions.

3.3.4 DIETs must be supported with finances, personnel and autonomy needed to innovate and provide high quality elementary teacher pre-service education programmes. Certain DIETs may also be chosen to provide the four-year B.El.Ed programme. In states where there is a backlog of untrained teachers in the school system, DIETs have a crucial role to play in supporting programmes for the training of such teachers. DIETs and BITEs together may also have to innovate to support the training of untrained teachers in schools, through various blended learning programmes, in order to enable states to fulfil the requirement of trained teachers in schools as per the RtE.

3.4 In-service teacher education (ISTE)

ISTE is in urgent need of quality improvement, so that teachers find the content of training useful, motivating and relevant to their work. DIETs must lead in this mission.

3.4.1 DIETs can design and offer high quality inservice education for teachers and thus set up models of good practice. They can also support the development of quality teacher educators and MRPs by offering programmes for teacher educators. Courses of short and long duration designed to develop either specific skills or areas of interest could be offered to teachers over a year. For example, a DIET could design and offer courses on topics such as ‘teaching fractions’, ‘developing secular attitudes among children’, ‘AIDS education’, or on pedagogical strategies such as ‘using theatre in the classroom’, ‘organizing and managing group activities’ and so on. Some of these could be of a short duration, say 4 to 5 days, while others may even be for a longer period, ranging from 1 to 3 months to enable teachers to develop a specific core area in which they need to strengthen their knowledge-base and professional skills. Enrichment of content and acquaintance with newer pedagogical approaches will add to improving the performance level of teachers.

3.4.2 The organization of ISTE needs to be overhauled. . Schedules for such courses along with

their content areas should be announced well in advance, teachers could sign up and take these courses as and when they wish to. There must be innovation in the design of the courses in terms of their length and periodicity. Some of these courses may be designed as continuous periods while others may be designed with gaps in between, during which teachers could practice and come back to share experiences. Such courses could also award certificates. Time should be provided to MRPs before training, to meet and plan their roles and after training to discuss and orient CRPs on issues that teachers may face and which will need to be addressed in the course of school followup/school visits.

3.4.3 All training should be managed with a Training Management Systems at every BRC which is used to maintain a data base of who receive what training and oversee and manage training. Access to the TMS from a central location in the DIET would also enable DIETs to oversee the process. All training from all organizations should be catalogued and managed through the TMS.

3.4.4 Design and conduct of trainings should respond to the following concerns

- (1) Trainings must be designed and delivered locally to the extent possible, rather than routinised implementation of trainings received from above in the cascade system. The Master Resource Persons' involvement in training objectives, leading to training design would lead to better quality trainings for teachers, 'live' and non-routine.
- (2) Cascade' training models need to be used for specific skill and information related areas where there is less likelihood of dilution across levels. Cascade designs could also have spaces which are filled locally, and may also include elements which are amenable to local alternation, based on assessing the situation.
- (3) Trainings must be closely carried out based on the cluster person's assessment of needs of teachers in their clusters and linked to a process of school follow-up and mentoring in which the CRPs participate, or better still through self nomination or nomination in consultation with the school head and teacher concerned. CRPs need to have information regarding who needs what training, based on which teachers are called. After training of the teachers, the training needs to include debriefing of CRPs in terms of how to carry out the school based support.
- (4) For training to be more effective, trainers need to meet with the same group of teachers again, after they have had some opportunity to practice, so that they can discuss what worked, what did not and also address the issues that teacher's experience. For this 'split model' is better than one off trainings. In such a model, sessions would be of say 2 days followed by a month or two of practice followed by again meeting (of the same group with the same trainers) for two or three days to reflect and to learn, etc.
- (5) Small groups for training (i.e. about 25 to 30) and resource and ideas enrichment trainings would lead to more impact and make trainings more interesting and relevant for teachers. It would also enable greater opportunities for participation for individual teachers
- (6) Teacher trainings, if it is viewed holistically within the perspective of the whole school's

institutional development, including its ethos and support for teacher's practice is more likely to cumulatively result in practical changes that can have a curriculum impact.

- (7) The development of attitudes of teachers seems to be a major concern today. This is often approached as a problem of developing the affect. However, attitudes, involve the intellect and our perspective on things. In the context of UEE, teachers need better perspective and understanding of the issues concerning children of the poor, children of 'low' castes, girls, and children with learning and various other kinds of disabilities. Through understanding and developing perspective that the development of empathetic attitudes and motivation to work with underprivileged groups can be nurtured.

3.4.5 Improving inservice training quality: DIETs could work on improving the quality of inservice teacher training by undertaking the development of master resource person pool, overseeing the development of the block as a training resource centre, using school and cluster level data more effectively in assessing training needs, designing modules and planning for training and in monitoring training quality.

3.4.6 The availability of pools of master resource persons in all the curriculum areas (academic subjects as well as music, theatre, art and craft) would directly contribute to enriching the quality of teacher interactions in for a such as monthly meetings, during trainings and workshops and school based mentoring. The development of MRPs requires higher levels of investment (higher unit costs) in training, as well as support from well-equipped resource centers. The financial and academic assistance in nurturing this idea will be facilitated by the Program Advisory Committee of the DIET.

Developing Master Resource Person Pool for the District should be a major focus for the DIETs direct capacity building work, through which it can support the quality of inservice teacher education in the blocks. Master Resource Persons (MRPs) are visualized as a resource pool at the block level, which understands the nature of teachers' needs and design or creatively adapt an existing training to meet these needs locally. An MRP group could vitalize trainings to e delivered in a cascade model, with minimum loss at the stages of the cascade as they would be able to focus on the training 'aims', revisit and adapt its contents and deliver it, making alterations as and where necessary. Thus, they would take responsibility for ensuring the achievement of the training aims.

A Master Resource Person would have in-depth subject knowledge and related pedagogic knowledge and experience, have knowledge of children's learning and also of teaching learning materials, be able to understand teachers' needs and adapt or design workshops/training modules and interactions with them to address their professional development, be able to communicate effectively and convincingly, be able to visualize the nature of school support and mentoring required by teachers, be able to respect teachers as adult professionals and thus create within the training process the space for their reflection and contribution.

3.4.7 Training Management System and Professional Development Record for Teachers is required at every district to be able to consolidate and track various professional development activities across the cluster, block and district and even State and national levels, provided by different agencies, all directed at teachers. Currently the information on training are kept in hard copy form and capture data relating more to financial accounting rather than training management. Such a system would permit various querying: How many days of training did teachers undergo between two specified dates?, To what extent have teachers of English been covered by English training?, Who are the teacher who have had about 50 days of Maths related training who can now be considered for MRP selection? And so on.

The training management system could be built on the information available in the EMIS to address planning issues pertaining to in- service teacher training. This system manages and tracks the trainings for which teachers are deputed, i.e. the management of a training delivery system to ensure that there is a rational, efficient way to allocate/call the right teachers for the right training and to track the trainings received.

Trainings are provided by various agencies and aim at different aspects of their practice, ranging from personality development to specific grade and subject related inputs. Currently, the information on training are kept in hard copy and capture data relating more to financial accounting rather than training management. The TMS can operate at the block level and assist in aspects relating to planning, reviews and reporting of trainings.

Using information from the EMIS pertaining to teachers and their school locations, the TMS captures additional information using two masters. The training master captures training description, including main features of training design, content and agency. Training delivery master captures details of the delivery of a particular training, teacher names, training dates, attendance etc. The system permits various querying. (NIAS, 2007; a document providing guidelines on a TMS can be accessed from the MHRD TE website).

3.5 Direct Field Interventions and School Improvement

3.5.1 DIET could design and implement direct work in schools serving special groups or schools which are facing difficulties. This would be a field action project and would involve continuous curriculum and pedagogic innovation, work with teachers and school heads, work with community as well as assessing and overseeing children's learning and all round development. These would be intensive and time bound interventions which should be carried out in an action research mode with field presence and mentoring. DIETs could plan to design and undertake such direct interventions in collaboration with university departments or established NGOs on the field.

3.5.2 Designing intervention programmes/action research programmes for special groups especially to broaden the understanding of and interests in education, to support the development of sports, arts, theatre for children, need to receive special support through the DIETs activities.

3.5.3 Monitoring of the quality of schools particularly in the light of RTE is an important function of DIETs. School visits of faculty should be carried out within some academic framework and the data maintained so that over the year, various visits to schools contribute to the formation of a ground level understanding of schools to complement the statistics. Such information should also be analysed and shared with concerned block and district functionaries. Unplanned and arbitrary visits of an inspectorial character should be avoided completely and it should be mandatory to write and publish information about the visit interactions.

3.5.4 DIETs should participate in the oversight of the school improvement plans and proposals of the BRCs and CRCs, and provide inputs especially as concerns teacher professional development requirements. A detailed discussion of various possible ways in which BRCs and CRCs can function, and the role that DIETs can play in this process is outlined in the draft operational guidelines for revitalizing and strengthening the Block and Cluster level Institutions (MHRD, 2011).

3.5.5 DIETs could design and oversee the implementation of training for school monitoring committees especially to empower them to oversee the school and to participate in the development of the school development plan. Studies from time to time on the effective functioning of SMCs would also be useful.

3.6 Studies on Education

3.6.1 DIET as an institution and DIET faculty as individuals should be encouraged and required to take up studies of the education of the district. For this DIET faculty would need to have capacity for research and documentation, as well as research funds and infrastructure to support this work. Research should be able to contribute to the process of understanding the issues that face the District teachers and children and focus on district specific issues.

3.6.2 A basket of research projects with research design and methodology built in could be developed by the SCERT/University department, and made available and DIETs who could choose from this basket. DIETs may also take part in Research that is designed at the State level and contribute the data and analysis of the district. Both quantitative and qualitative research studies need to be encouraged. These would provide some level of quality of the research as well as significance in a larger sense.

3.6.3 DIETs could evolve capacity for basic research and documentation methods, effective ways of handling data pertaining to various aspects of academic achievement and provisioning and also relating to teachers and their practice. DIETs can actively engage in the academic review of preschool and secondary schools for addressing 'quality' issues at the District level. DIETs could also conduct regular monitoring of school quality through school visits and assessment of children (quality of learning, teacher practice, institutional development, etc.). They could

produce district level reports on quality parameters pertaining to the schools, including the status of schools and schooling in the district.

3.6.6 DIETs could also develop capacity to undertake action research studies collaborating with teachers in the District.

Accessing relevant web resources for research should be a regular process, to benefit from work done elsewhere. Research drafts should be widely shared (in digital formats) for peer review and providing feedback encouraged as a regular process.

3.7 Annual Academic Planning and Reviews

- 3.7.1 The DIET could carry out consolidation and analysis of information on status of schools and status of learning to provide feedback to BRCs and CRCs for school visits and institutional support. These could also be the basis for deciding on various training to be offered and specific schools to be supported. BRCs the types of trainings and activities to be conducted for the district as a part of SSA and RMSA.
- 3.7.2 There needs to e a focus on regular documentation of special academic programmes for special groups, special forms of interventions etc, developed for the district, e.g. for tribal children, for girl children, etc. and NOT merely oversee implementation.
- 3.7.3 The office of the Deputy Project Officer for academic planning for SSA/RMSA could be located within the DIET so that the DIET becomes the seat for academic planning of the District. The overall thrust on teacher education (except for large scale training) needs to be made more central in the SSA/RMSA approach and for this DIETs need to be more systematically integrated into and also made an object and instrument of quality improvement. For the Institution, this would provide a much needed opportunity to become 'relevant' and to find focus in its activities. For SSA, DIET needs to be viewed as a key institution to be developed towards ensuring long-term sustainability and systemic integration of its key efforts.
- 3.7.4 Through the training management system, DIETs could maintain records of teacher education programmes received by teachers. This coordinating role would not only make the current arrangements of teacher education programmes more efficient, but would significantly contribute to a more rational and transparent system of training.
- 3.7.5 The review and status of teachers in the District and an understanding of requirements and needs from the point of view of their professional development could also be maintained by the DIET.
- 3.7.6 Any new quality intervention in the district, whether in the form of a study by a Higher Education Institutes or an input by an NGO or national or state programme, would need to have the clearance of the DIET. It should feature in the DIETs 'knowledge' of the academic work and inputs of the district. Relevant documentation of such programmes including the proposal, six monthly progress reports, evaluation studies, outputs and final reports of such interventions need to be systematically logged into the DIET.
- 3.7.7 Wherever sub-DIETs are functional, they could be strengthened and be asked to bring in

their local perspectives on issues relating to tribal communities, language and learning, pedagogies of marginalized sections of the society. BITEs could also serve this purpose.

3.8 Resource Centre/ Teacher Learning Center

Each DIET must develop and run Educational Resource Centers for the District. A Resource Centre is an enhanced library created specifically to make available to teachers, teacher educators and district education planners, the range of materials and resources they require for their professional practice.

3.8.1 A resource centre would include:

- A functioning library of reference books, children's books teaching learning materials, textbooks, maps and other resource materials, including access to Internet and computer enabled resources.
- Local materials of relevance to education (teaching and planning) such as studies of education in the district and education statistics, a collection of local experiments and innovative efforts related to education, etc.
- Tools and materials for replication of teaching aids, etc.
- Sets of materials that teachers can borrow and take into classroom for direct use (multiple kits for demonstrations and organizing activities for whole class).
- Updated database on resource persons/groups, resource organizations/agencies and research institutes working in education and make it available at district level for academic purposes.
- In addition to various equipment and kits that teachers can use in their classrooms, the Resource Centre could also include the digital library/lab for access to various digital resources and the internet.

3.8.2 DIET can emerge as a hub of educational value through a vibrant resource centre and a centre for teacher learning at the district level. It could bring to use the local knowledge, build on its competencies and integrate the use of educational technologies to facilitate processes of maintaining and disseminating knowledge and skills. The resource center works to nurture a professional community of users by:

- Promoting an interest in and a culture of using the library as a support for teaching and training, for ideas and for materials.
- Developing a culture of sharing ideas and experiences by contributing materials developed by teachers, etc. to the resource center.
- Networking the district, block, cluster and school resource centers for effective exchange of ideas, information and resources.
- Providing academic help and support to resource groups working at different levels (district, block and cluster levels) in the district.
- Facilitating teachers in developing and using low cost, locally available educational

resources.

- Providing a forum for interactions with educationists, intellectuals, artists, creative teachers, resource persons and resource group to the district functionaries, including CRPs, BRPs, DIET faculty, D.Ed and B.Ed students.
- Forging links between pre and in-service teacher education as envisaged in the NCFTE 2009.

3.8.3 The use of resource centres and educational technologies needs to be integrated within the curriculum. Instead of providing a separate course on teaching applications for editing texts or spreadsheets, students could be exposed to pedagogical applications like GeoGebra (Mathematics) and Marble (Geography). Such applications are not proprietary, maintained by a community of like-minded professionals (open source) and require no additional funding. Also, student teachers could be encouraged to prepare documents digitally which could be used for formative and summative assessments. Appropriate training needs to be provided to the faculty in use of such applications before they can be integrated into the curriculum. Such resources are equally important for ISTE. DIETs can contribute to building a cadre of teachers with computer competence through organizing regular workshops on Educational Technology. Information and Communications Technology including TV, radio, telephony and internet are useful resources that provide access to ideas and enable wider dissemination of information. Distance media can effectively be used to keep teachers connected with professionals in academic and applied disciplines. Rather than being the work of an education technology wing, technology needs to become an integral part of the knowledge and practice of all teacher educators.

3.5.3 Even if not initially, overtime more district specific materials and resources could be developed for use in schools. The use of Children's own drawings and artwork are a rich resource that can be creatively used in such local materials. In addition, with the advancement of technology, digital photographs and desk top publishing can lead to the production of attractive locally produced materials. There are possibilities that in due course, faculty, local resource persons and experts, teachers and even children themselves can produce and publish materials not only for their own use but also for exchanging the resources with other schools. Local materials can be produced on a variety of themes, which may include, materials on local historical monuments; Flora and fauna; Mapping 'Problems' (Ecological, Economic, Health, Social, etc.) of the district; Festivals and cultural events; Songs, poems, and riddles; Folk tales; Tracing historical events of significance in the area; Stories of people in the district; The material life of people; The crafts traditions of the area; etc. The PSTE and ISTE initiatives of the DIET can work in coordination with schools to develop this kind of material.

3.8.5 Organising such a resource centre and ensuring it has adequate personnel to maintain it and keep it open for long hours. Locating it in a place which is accessible and visible are some essential requirements. Budgeting for such resource centers could be drawn from various

sources including SSA projects, Teacher Education schemes and community funds. The running of a RC could be a good site for effective collaboration with a NGO or a PPP model to be effected.

3.8.6 Forums are key spaces for the strengthening of reflective practice throughout the education system. Forums also serve as a motivational environment of interaction with people and ideas and provide opportunities for exposure, learning and discussion of different perspectives, experiences, and experiments of teaching-learning processes, material development and of training.

- DIET could support the organization of school quality review meetings.
- Subject forum meetings of teachers and/or teacher educators (from TEIs and MRPs as a group)
- Seminars for teacher educators with opportunities for presentation of internal work and invited speakers.

The core forum at the DIET level could take the form of a weekly academic seminar in which faculty present their academic work along with invited speakers from other groups. Quarterly and yearly reviews of schools, programme evaluations and proposals for new interventions, etc. could also be presented in such forums. These academic seminars could be a fixed feature of the institution and be open to all teacher educators and education NGOs in the district. A culture of faculty and institution head attending these academic meetings is important to create and sustain an academic peer group.

3.9 Lead District Academic Resource Institution

3.9.1 In most districts, the DIET would be among the few institutions with capability and vision to provide larger academic resources for various requirements of the District. The DIET should be able to play a larger role among various District institutions and be recognized for this potential.

3.9.2 In the context of Anganwadi Worker Training Centres being established in all Districts, these Centres could be located within or even merged with the DIET so that its ability to support early childhood education is strengthened by being in an institution with an academic culture. Limited resources especially in the form of the resource center as well as faculty with academic capabilities could be used more optimally with such a synergy between the institutions.

3.10 Integrating ICT into Teacher Education

For a new technology to be widely beneficial, it needs to become freely available and widespread. All teacher educators, teachers and student teachers need to have access to and learn to use ICT, in a large variety of ways. Viewing ICTs as public learning resources can create this culture of widespread appropriation. Training is basic hard ware and soft ware of various

equipments can enable all users to become more confident and empowered in their relationship to ICT.

ICT is usually treated as “another subject”, however, it needs to be seen as a process and method that could mediate new models of TE, applicable to all domains of learning. Such new models of teaching-learning, using ICTs, could support TE goals as well as address critical challenges and limitations in current TE models, that tend to be centralized, relying on point in time workshops and didactic methods.

ICT mediation needs to be driven by educational aims, designed by those working in education, with quality frameworks and rigorous academic processes. ICT needs to be seen as a pedagogical tool and not as a technology device or as a sophisticated typing tool. The ICT curriculum and pedagogy need to be seen like any other curricular area. Clear educational aims, principles and priorities need to drive program design. Program design structures need to have educationists, teachers, teacher educators. Technology experts may need to be consulted but should not have prime role in design. The challenges are primarily pedagogical in nature – how can ICTs impact teaching-learning processes. Technological challenges exist – fragility and rapid obsolescence of infrastructure, power, sheer variety of options available etc. however these challenges are relatively less formidable and our thinking needs to move towards seeing ICTs as another (powerful) pedagogical resource than a technological black box. This warning is worded strongly, since the bane of ICTs in education has been the adoption of technology-centric thinking and designs which have not consulted educators, leading to program isolation and failure¹.

3.10.1 Curricular resources need to be publicly owned, so that they are freely available to teacher educators, teachers and students, for free sharing and also to customize to local requirements without proprietorial restrictions This approach can enable the system to develop and provide a rich and diverse public digital environment rather than a scare minimalist one.

3.10.2 Critical perspectives on ICTs

DIETs need to see teachers and teacher educators as creators and uploaders of resources, instead of only downloading – moving from only 'access' to 'construction' of resources

Some of the other major concepts of constructivism are that learners are unique, bring prior understandings to any learning situation, hence learning is situated and contextual; learning is an adaptive activity; learners may resist, accommodate or assimilate new learning; and learners interact through interaction with materials, resources, experiences and other learners. ICTs can be used to provide curricular experiences that are aligned to these concepts.

It is essential to understand the limitations of ICTs including inducing superficiality (due to over-abundance of information easily available), issues of authenticity (the Internet provides information from all kinds of sources, without any meta information about its reliability). The dangers from ICTs – lack of adequate cyber security can lead to cyber bullying etc. Safe

¹ See the idea of 'first and second generation' ICT programs and their differences, discussed later

behaviors need to be encouraged (and risky behaviors discouraged). Children also are vulnerable to peer pressures for practices. Teacher educators need to learn how to set-up and use firewalls and browser filters and also how they could explain to teachers and student teachers the reasons for being careful on-line. An understanding of the mechanisms of the Internet – technological, political (including its governance), socio-cultural is also an essential knowledge.

The field of ICTs is vast and hence a 'layered framework' comprising of 'literacy-access-review-creation-connection' layers is proposed, which could be considered for integrating ICTs into the PSTE and ISTE processes.

ICT Literacy: It is essential to learn to use ICT tools like radio, video tools, computers etc. as well as methods such as information access, review, classification, communication and networking. This needs to cover both hardware (parts of computers, radio and A-V educational devices and assembling them) and software (to integrate ICT tools for effective teaching-learning and in education administration) skills².

ICT to access resources: It is important to develop in the DIET faculty, the ability to access a variety of learning resources on any topic/unit. It is also important to develop in teacher, the abilities to critically reflect on a text accessed, to assess its educational value, which would require assessing its authenticity, relevance, currency etc. It would also be useful to refer to resources that provide diverse perspectives on a given topic/issue. *Accessing digital resources for self learning needs to be emphasized as a TE method in itself.*

curate digital resources: Along with accessing available resources, the review of existing resources, resources created by peers etc. is also an important learning process. This would include annotating / commenting on the document etc. Text editor features like recording and accepting/rejecting changes on a document from multiple reviewers, making available documents over mailing-lists/websites for wider review by peers, need to be made default peer review methods. Strengthening peer review would also strengthen the capabilities for collaboration itself as a larger method of TE. This process would also help to develop capacities to reflect, reason and make judgments. DIETs can also peer review resources created by other DIETs, which can also strengthen linkages amongst them.

To create and share digital resources: Curricular resource creation is accepted as an important teacher development and empowerment process.

To connect teachers and teacher educators: DIETs should enable teachers connect and communicate effectively with teachers, teacher-educators, community, schools and other institutions by digital mode - email, mass sms, audio-video meetings, blogs etc. Webinars (seminars over Internet using audio/video conferencing tools). Institutions should connect to one another to share resources, faculty members virtually. Students in one institution should be able to access other institutions for this purpose. It is possible to visualise that different institutions

would specialise in identified areas and acquire greater depth which could be made available to other institutions as well – for both DIET faculty and teachers.

4. STRUCTURE FUNCTIONING AND SYSTEMIC LOCATION

4.1 The overall Institutional focus of DIETs needs to be located within, and complement the focus and function of other institutions of the state education system. At the district level it needs to work with the other district institutions within the framework of a District Education Plan and a district wide data-base (Education Management Information System and GIS).

4.2 Empowering DIETs for autonomy:

DIETs need to be empowered to exercise autonomy to be able to discharge their own functions and activities and to evolve district focus in design of programmes. In order to enable the DIET to take considered decisions on matters of programmes and activities, funding and staffing, it will be supported by two councils/committees.

The **programme advisory council** is a larger body which would oversee the annual review of work, institutional review, and to advice and approve the new annual work for the DIET. A smaller **executive body** could have a more executive role and meet more frequently to advise and ratify decisions.

Both these bodies could be guided by

- indicators indicated in this document (Chapter 8),
- annual self appraisal by the DIET and
- annual appraisals carried out by complementing institutions—such as the district administrative wings, BRCs and CRCs and CTEs/IASEs with whom the DIET is expected to coordinate for the Districts educational requirements, and the SCERT.

4.2.1 The ***Programme Advisory Committee (PAC)*** would serve to advise and guide and review the Institutes plans, programmes and activities. It would have representation of key institutions of the District with whom the DIET is expected to work and coordinate, and the State

1. Principal, DIET: Convener
2. Zilla Parishad Standing Committee on Education representative -Chairperson
3. District Magistrate/ District Collector
4. District Education Administration Officer
5. Deputy Project Coordinator SSA/RMSA
6. Two senior faculty of DIET
7. Two junior faculty of DIET
8. Two Teacher representative (one each from high school and elementary school)
9. Three HM representatives (one each from government high school and elementary school and one from 'other category schools' of the District)
10. Two SMC representatives (one each from high school and elementary school)
11. One Representative Each from Tribal welfare department, social welfare department,

minorities department (³), women and child welfare department, youth and sports department, labour department, public libraries.

12. One BRC
13. One BRP
14. One CRP
15. One principal from private aided/unaided teacher education college (DEd and B.Ed)
16. Principal IASEs
17. Principal associated CTE
18. Director SCERT/Head Teacher Education/DIET unit of SCERT
19. Four Experts: Two education experts, one performing artist, one artisan
20. Director/Principle from Angan Wadi Training Centre.
21. Two student from PSTE (seniors and junior)
22. Principal of DIET from neighbouring District

This committee would oversee the academic programmes of the DIET and its associated finances. Its objectives would be to ensure:

- a) District focus in programmes and activities
- b) Coordination among institutions
- c) Promoting innovation
- d) Ensuring that the States education plans are adequately reflected within the district plans
- e) Efficient use of resources and personnel to address education quality and teacher education requiremens of the District.

4.2.2 A subcommittee of the PAC would form the **Executive Committee of the DIET** to enable the DIET to take decisions regarding work by meeting more regularly.

1. Principal, DIET: Convener (EC)
2. Zilla Parishad Standing Committee on Education representative -Head-(EC)
3. District Magistrate/District Collector (EC)
4. District Education Administration Officer (EC)
5. SSA/RMSA DyPC (EC)
6. 1 SCERT faculty
7. 1 senior faculty (1 of these senior faculty would be in EC)
8. 1 junior faculty of DIET
9. 1 BEO
10. 1 BRC
11. 1CRC
12. Two education experts from the District

³ This EC position could be on rotation and occupied by the Tribal Welfare department, Woman and Child welfare and the Labour Department in succeeding years.

4.2.3 All funds available to the DIET from the center or state would be managed by the PAC.

4.2.4 The PAC would meet once a year to review the work and budget utilization of the previous year and to approve the work and budgets proposed for the forthcoming year (the AWP). The Perspective plan for the DIET for the next five years would be presented to the PAC and form the overarching framework within which work is conducted. The Status of Education in the District would be presented on an annual basis every year to the PAC.

The EC would meet at least once a quarter and would review ongoing activities of the DIET and approve new proposals. The EC would in addition hold emergency meetings for urgent issues arising out of local conditions. The Principal would be able to make decisions regarding expenditures not projected in the AWP, upto Rs 100,000 provisionally and these would need to be reported and approved by the EC at its next meeting. The EC would be authorized to approve expenditures above this amount. The EC could authorize the principal to make temporary appointments and contractual/short term appointments following due process of transparency in advertising and selections, either to meet staff requirements (arising out of vacancies) or project posts. The EC would approve of collaborations which the DIET wishes to establish and the approval of proposals and budgets which may arise in an ongoing basis through the year.

4.2.5 Meeting notices must be sent out one week in advance with the date, time and venue specified, along with agenda. All meetings must have a set agenda which is circulated at least three days in advance to all members, along with supporting documents. Every meeting must start on time and be minuted. All meeting must include the confirmation of previous minutes and the presentation of action taken report based on the previous minutes.

4.3 Perspective Plan and Annual Work Plan(AWP)and Annual Report

Each DIET could engage with the development of a **perspective plan** for five years which would guide its activities through the 12th plan period. Further it would prepare an annual work plan to guide all its activities in each forthcoming year. The AWP would be reviewed mid term and at the end of each year while formulating programmes for the next year.

4.3.1 The **perspective plan** preparation assumes importance in the context of the 12th plan period. It would involve developing a vision and deciding on a direction for the next 5 years. The plan would be developed by a group of faculty within the DIET lead by the Principal, through a process of consultations and discussions involving all faculty, the District education functionaries, institutions and stakeholders, including the SCERT. The Perspective plan would be presented to the PAC and suggestions received from it would be incorporated and finally adopted by the PAC for the DIET.

The Plan would provide a sense of direction to the DIET. It would reflect an understanding of teacher professional development status in the district, the District schools' educational requirements, and the state's overall plans and directions for both teacher professional development and school improvement. It would indicate the role to be played by the DIET in general vis a vis teacher professional development and school learning quality and in particular the district specific requirements and innovations that the DIET wishes to engage with. The DIET may in addition indicate in the perspective plan how it proposes to be internally organized, and what collaborations it envisages or requires, so as to achieve its plans most effectively.

The Perspective Plan may be revisited every year to review the performance of the DIET and to make changes in view of the unfolding educational work in the District and in the State. The Perspective Plan need not curtail or limit the DIET in taking advantage of any good educational opportunities which unexpectedly arise within the year. The **Annual Work Plan** would be developed within this overall five year perspective plan.

4.3.2 The **Annual Work Plan** (AWP) of the DIET is important as this activity will establish the the autonomous character of the Institution and provide it with focus for the year. The AWP could serve to integrate and focus the DIET on District requirements and reflect its own special role and how it visualizes making a difference to schools, teachers and children.

The AWP must reflect how the DIET integrates various activities and programmes required of it by other agencies, or designed by it, and utilizes all its available sources of funds to achieve its institutional objectives within the overall context of the Perspective Plan. For this the AWP process needs to:

- Involve all District and sub district institutions concerned with education, in particular the BRCs and CRCs, and within the framework of an educational plan for the district.
- Be participatory in its approach, involving all DIET faculty.
- Be based on review of the previous year AWP and reflection on achievements in relation to that.
- Plan in advance for various State programmes impacting on DIET faculty time and resources.
- Consider the parallel efforts of other agencies at the District level, including Non Government Organisations and other departments.
- Focus on and reflect district needs and district specific concerns, setting realistic goals
- Visualize relationship of DIET activities with schools, BRCs, CRCs and other District institutions.
- Have a mix of both training and capacity building related workshops and activities as well as research, studies and material development.
- Include the faculties' own capacity building and reflective review, planning and meeting requirements.

4.3.3 A good AWP and Perspective planning exercise would enable DIETs to revisit activities and requirements, based on the overall sense of significance of various activities in relation to each other and the desired outcomes. It would provide focus and directly lead to the definition of roles as well as inter institutional relationships. It would serve as the basis for the institution's own reflective audit..

The AWP and Perspective Plan process must take an integrated whole institution approach to planning, where funds can be seen as different sources of support towards activities that are decided upon and prioritized at the institutional level. Financial autonomy must lie within the institution, rather than the entire accountability being directed to the organizations from which the grants are received.

4.3.4 The Year must end with the production and presentation of the **Annual Report** of the DIET by the Principal, which should constitute a report of achievements of the year, analysis of what has not been achieved and reflections on what is being contemplated for the forthcoming year. This should be presented each year to a general body comprising the faculty of the DIET, students, members of the PAC and a wider group of stakeholders in the District.

The report would include an overview of all the academic work being carried out in the district and a review of the academic progress of the district. This report should be able to reflect the work of the DIET, the work of the BRCs and CRCs and additional work carried out by various other groups working in the District for school quality and for teacher education.

It would also include a section on school quality in the light of Right to Education. This would need to cover all dimensions of the quality issues of RtE, including a special focus on the academic achievements of children from marginalized communities, children in government and private schools.

4.3.5 An effectively functioning PAC and EC and rigorously developed, adopted and reviewed perspective plan and AWP and the compilation and presentation of an Annual Report, are central to realizing autonomy and maintaining responsible accountability within the system. Information regarding the membership of the PAC and EC, perspective plan and AWP as well as Annual report for both the current and past years must be available in the Website of the DIET. All efforts are required by state and district institutions and functionaries to achieve such responsible autonomy and use it to establish the DIETs as relevant focal institutions in the District.

4.4 DIET Website, Faculty fora and committees:

4.4.1 Each DIET must be provided with space and funds to develop a Website for the DIET. The SCERT could provide and maintain a platform for this purpose. The Website should include

information about education in the District, with special focus on teachers and teacher education in the district, and the quality of schools and children's learning. The website would provide institutional and organizational information, ongoing work and activities and faculty of the DIET. Each faculty's profile would be posted in the Webpage. It could also include information regarding master resource persons available, and special achievements of the institution. Publications of the DIET, resources, etc. could also be provided. The annual training calendar and other information regarding programmes would be placed on the site. The website could include registration and membership login for all teacher education institutions, schools, teachers and teacher educators of the district and enable them to participate in discussion groups and discussion for a, and to receive relevant information. Such a forum could also link and support student teachers in the PSTE programme.

4.4.2 A weekly academic faculty forum must be instituted on a weekly basis where attendance of all faculty, including the principal is mandatory. This forum would have a faculty as convener. DIET faculty or other invited experts make presentation of ongoing research and discuss academic matters. At least 75% of all proposals which are to be included in the AWP should have been presented at the faculty forum and feedback invited and incorporated in the same. Similarly every research project or activity that is conducted must present findings at the faculty forum. (For research proposals that have not been discussed at the faculty forum, a method of circulating internally for peer review must be instituted.) A functioning faculty forum would establish an academic culture and peer group interaction within the DIET. This forum may also be opened to other teacher educator faculty and NGOs of the District. This is separate from faculty meetings which would be conducted on a weekly or fortnightly or monthly basis by the principal, for administrative matters pertaining to the DIET.

4.4.3 Given the complex nature of work management requirements, ICT tools could be used to enable better coordination among faculty. Calendar management using office suite can support tour diary management, meeting coordination and Work planning/scheduling. Simple calendar management tools in an email client such as Thunderbird can help teacher educators to track their own appointments/meetings, schedule meetings with others, check for conflict and publish their calendar on an automatic mode.

4.4.4 A **Board of Research Studies** constituted within the DIET and comprising the Principal, Vice Principal, two senior and one junior faculty (who have PhDs) and two experts from Universities or on NGO with research expertise would additionally be required to review every proposal and its budget submitted. Proposals would be referred to external experts for inputs to strengthen the same.

4.4.5 Other coordination committees which are likely to be essential could include PSTE, INSET, School Quality Monitoring, (INSET and SQM would work closely with BRCs and CRC network), Resource Centre and Interventions for Special focus Groups.

4.5 Finances and Infrastructure

4.5.1 DIETs require much higher investments in their infrastructure and facilities for faculty and students in order to emerge as strong centers for teacher professional development and school improvement. The lack of even minimum facilities, dilapidated buildings and inadequate space is demoralizing and conveys the lack of worth and neglect to faculty and students. Expecting the Institution to deliver needs improvement of the ambience and facilities of this institution through much higher investment in infrastructure. Towards this, the limited Central funding for this institution needs to be enhanced and States also need to begin to invest. Rather than be seen as excessive spending on assets and capital expenditure, this must be seen as a much-needed investment for a more long-term institutional development. Aspects that require attention include:

- Adequate provisioning of space, including building additional classrooms, training and meeting rooms, faculty rooms and play facilities
- Library needs to be enhanced in order to function as a Resource Center for the district.
- Full-fledged computer center with internet for faculty and students
- Individual work spaces with computers for all faculty
- Multimedia presentation capabilities- TV, DVD player and projectors. Recent innovations in pico-projectors have substantially reduced their costs.
- Hostel facilities for students of the pre-service training programmes.
- Vehicle for visiting as well as bringing people from BRCs, CRCs, schools and district level institutions.
- Power backups and Fire safety equipment
- A conference Hall
- Canteen and stationary and reprography facilities.

4.5.2 **Outsourcing** some responsibilities like security, peons, cosmetic staff, canteen and staff needed for upkeep of the campus could be considered. Outsourcing maintenance of computer labs and hostel could also be considered. All funding support should include an aspect of Maintenance grants at 2-3 year intervals to refurbish the DIETs. Principals need to have the authority to dispose off unwanted and obsolete infrastructure with EC approval. The funds generated could be used to enhance various services for students and teachers for example for the Resource Center.

4.5.3 **Timely flow of funds** is crucial to restoring a basic functionality to the DIETs. This would support DIETs in discharging their routine activities in a planned manner rather than carrying out activities in fits and starts based on budget release. It is necessary for States to evolve ways of facilitating smooth flow of funds to DIETs and evolving appropriate financial department structures so that this flow of funds is not impeded.

An overall State structure for fiscal governance is required to ensure timely release of funds

through disaggregated tranches. Structures created for projects such as SSA do not facilitate the over-hauling of the larger system, but create a small niche for different practices. Post project, the system may become less vibrant as these systems created for the project close with it.

4.5.4 The EC and PAC can provide oversight and accountability for higher autonomy on fiscal matters. SSA project funds could be disbursed to DIETs once the PAC approves the AWP. The EC can be given powers to disburse contingency funds not covered under the AWP. Referring to the SCERT for approvals could be kept to a minimum. Norms could also be designed so as to support flexibility with adequate rationale.

4.5.5 Additional funds may be generated by the DIET itself. Being a lead academic resource institution at the District level, the DIETs could be called upon to undertake training and orientation workshops or activities such as materials development and training for other departments of government (e.g. AWTC for women and child, etc.) and by private institutions. Time and effort to these activities should be compensated, and funds so generated can be used by the DIETs to cater to the administrative and functional needs. The extent of such funds and its utilization should also be a part of the AWP and be reviewed and approved by the EC and PAC. Such activities should however be planned for within the AWP or carried out with EC approval. and institutional time which is used for such activities should be fully accounted for. **Such activities should not exceed 10% of the DIETs total annual budget.**

4.5.6 When the DIET is required to take up additional programmes over and above those in the AWP, the institution should receive overhead costs of at least 15% of the budget as well as funding for additional faculty/personnel. Trainings such as RMSA and SSA which are routed through the DIET should be supported with a management cost which would accrue to the DIET.

4.5.7 Budget heads of the AWP

The AWP needs to be approved by the PAC. The AWP must comprise a narrative section which adequately discusses proposals which support the budget requirements. The AWP could be prepared under the following broad heads.

- a. Capital: Infrastructure
- b. Recurring/Programme
- c. Maintenance- building
- d. Maintenance-equipment, IT and resource centre
- e. Programmes and workshops: this would include all requirements of the various programmes and development activities of the DIETs. It could include honorarium, TA-DA to participants, workshop preparation and material expenses, etc., This would be a major component of the AWP and each proposed activity of the DIET could be placed here, with its budget requirement as a summary of its individual components.

- f. Research: for all types of research and documentation activities. This would include costs of data processing, field work/field travel, and research assistants etc.
- g. Capacity building: internal for DIET faculty and staff. In addition to course fee it could include grants for travel, seminar registration, etc.
- h. Personnel: to cover costs of short time/part-time personnel, honoraria, etc.
- i. Travel: for field visits to be undertaken by DIET faculty or for consultation meetings etc for institutional work
- j. Board and lodging: to cover expenses of consultation meetings or field stay as a part of institutional work.
- k. Administration: this would include all overhead costs

4.6 ICT support within DIET

- a) ICT infrastructure is complex and fragile. While a blackboard once set-up needs very little maintenance, ICT infrastructure needs regular maintenance support. However, given the potential for benefit to the process of teaching-learning, the processes for creating and maintaining the infrastructure needs to be developed as part of the program. Hence the program needs to ensure infrastructure availability - computer lab, Internet (preferably broadband wireless), with other ICT devices including radio, TV, camera, audio recorder, mikes, speakers handy-cams etc. A Lab attendant is required to secure and manage the infrastructure and maintain uptime. Digital library / repository should be maintained in the lab, variety of resources, classified with annotations/comments. Digital resources in DVDs should also be maintained for lending to faculty members and student-teachers.
- b) ICT device costs have sharply declined and hence access is not a major issue. We need to move towards 1:1 access to ICTs so that its use is optimised, instead of being a “scarce commons” resource. Such 1:1 access will greatly encouraged ownership on part of the teacher-educators, teachers and student-teachers over the processes of learning using ICTs. This will support the extensive and intensive learning required in this area. Interest free loans could be offered to encouraged them to acquire their personal devices.
- c) The opportunity costs of depriving teacher-educators and student-teachers access to and participation in the best learning possibilities is higher than the costs of the devices and Internet access.
- d) Tethered devices like desktops are obsolete, inefficient and expensive (since they need persistent power backup, do not come with wireless access, video-conferencing capabilities) – instead laptops, net-books and tablets should be the preferred devices. Similarly Internet access through broadband wireless should be preferred to wired access.
- e) Budgets for creating and maintaining the infrastructure need to be provided as part of AWP&B. Maintenance budgets should be at least 15% of the infrastructure acquisition costs and provided each year.

4.7 Organisational Structure:

In order to allow DIETs to have flexibility in utilizing its human resources in an optimal and efficient manner, it would be desirable to specify the various programmes and activities that they are expected to perform and allow each DIET to reorganize its resources depending on the importance of one or more programme/activities for each of them.

4.7.1 Each DIET would have the following broad types of personnel

- a. Principal supported by a PAC and EC
- b. Planning and Management—a coordinating administrative group comprising Principal and Vice Principal and a few faculty to oversee the coordination of various tasks, exercises and meetings of the DIETs.
- c. Faculty: Team of Senior Lecturers and Lecturers who represent various areas of expertise required by the DIET.(see section on personnel for more details). These faculty members will additionally be organized into units or groups with the responsibility to coordinate various activities of the DIET. Each group may be led by a group convener.
- d. Resource centre staff including librarian, assistant librarian and resource person team.
- e. Computing in charge
- f. Additional Academic persons from teacher fellowships and research/projects personnel deputed to it from projects or appointed, in a contractual capacity to support programmes
- g. Administrative Staff including a training programme coordinator/manager to oversee the logistics of training.
- h. Maintenance of equipment in charge/housekeeping (especially for maintenance of hostels);
- i. Accounts and Finance
- j. Clerks and secretarial support
- k. Cleaning and support staff

4.7.2 The faculty of the DIET could be organized so that the structural formation best indicates the personnel expertise available and flags the nature of requirements when there are vacancies. As faculty are expected to work as academics with specific expertise, this identity of the DIET could be highlighted. There could be coordinating groups with conveners to oversee various programmes and activities of the DIET. Two possible models are suggested:

4.7.3 Model A:

	Number of faculty	
Principal	1	
Vice Principal	1	
Unit for foundations in education	3	
Unit for Mathematics and Science education	3	
Unit for language education	2+1+1	
Unit for social science education education	2	
Unit for arts, physical education and performing arts education	2 or 3	
Resource Centre	1 librarian + 2 assistant librarians	
Statistical Staff and data entry		
Administrative Staff		

These faculty organized around their core expertise areas would contribute their expertise across various programmes of the institute including pre and inservice education, research, school improvement, teacher educator education and monitoring of TEIs and to the resource centres. Each of these activities would be carried on by coordination committees which are constituted by the Principle for a period of two years. Each coordination committee could have two or three people (based on the scope of the work involved) and by rotation, every year, one or two members could be replaced, so as to ensure continuity across time.

Key Coordination Committees:

1. Board of Research Studies: (Principal, Vice Principal, 2senior and 1 junior DIET faculty + 2 invited experts
2. Pre Service Teacher Education
3. Inservice Teacher Education
4. Teacher Education Institutions:curriculum support and monitoring
5. Master Resource Person and Teacher Educator capacity building
6. School Quality monitoring
7. Resource Centre

These committees could be reconstituted and additional committees may be formed based on the requirements of the institution and the activities it is expected to carry out. Each committee could be supported in its work with a secretarial staff.

4.7.4 Model B

The programmes of the DIET and its structure may be re-organized around the following academic wings/units.

Pre Service Teacher Education	
In service Teacher Education	
Leadership and Management Education for School Heads	
Inclusive Education and Special Focus Groups	
Academic Planning and Review	
Education Resource and Documentation	
Administrative Staff	
Statistical, data entry and library staff	

a) The Pre-Service Teacher Education Programme would provide high quality curriculum for the Education of Elementary School Teachers, with a special focus on understanding childhood, community, and child development, emergent literacy and numeracy and the inclusion of physical education and creative and performing arts. Understanding school curriculum and educational aims would enable student teachers to learn to make sound educational judgments aims of education.

b) The in-service teacher education programmes would work for the development of Master Resource Persons (especially for training at the block level) as well as direct work with teachers with a view to continuously enhance understanding of and better quality of planning and implementation of all parts of the curriculum. An effective system of split-design trainings and school follow-up will be put in place. Specific areas for attention include early literacy, numeracy and inclusive education, and science, mathematics and social sciences education for classes V-VIII and secondary school. This work will be carried out in close coordination with BRCs and CRCs, and the use of a training management system. Information Technology (IT) would be effectively used for various outreach and extension programmes. In respect of in-service training of secondary school teachers, DIETs would undertake this function only if (a) there is no CTE to cater for the district; or (b) the jurisdictional CTE of the area is unable to fulfill this requirement, either because of its inadequate institutional capacity or because of the large number of teachers to be trained necessitating the DIET to supplement the function of the CTE.

c) Leadership and Management education for Heads and Senior teachers of schools and school development and monitoring groups (including members of community) would be provided on a continuous basis to strengthening the academic functioning of schools. School and teacher supervision conducted by Block and Cluster personnel would also be strengthened through such trainings.

d) Inclusive Education and Special Focus Groups Programme would focus specially on the needs of groups identified in the district as requiring special efforts to achieve

educational standards, including SC, ST, girls, minorities (including linguistic minorities), children with special needs, etc.

e) Academic Planning and Review group would be responsible for gathering and maintaining data relevant to developing an understanding of the status of quality of schools in the district and the effective achievement of the vision of the RTE Act. The group would also coordinate efforts of other institutions working in the district in the area of school and teacher development towards strengthening the public education system. This group would be supported by trained statistician as well as data entry operators.

f) The Education Resource and Documentation Centre would provide a rich range of resources and ideas for the use of teacher educators, teachers, student teachers and various education functionaries in the district. It would also oversee the effective use of ET, IT and ICT in schools as well as in teacher education. This Programme will be supported by a fully qualified Librarian and Assistant Librarians with an understanding of educational materials. Labs (Science, computer, work, art/craft) where they are present, would be integrated into this Wing of the DIET.

4.7.5 A Committee consisting of a representative of the SCERT, Principal and Senior lecturers of the DIET and the District Education Officer (Elementary and Secondary Education) should recommend a re-organized structure of the DIET, to the Secretary Education/Director, SCERT. Alternatively, the Secretary Education of the State Government should, in consultation with academic bodies such as SCERT, prepare alternate models of the DIET structure which would then be adopted by the DIETs in the State. The Teacher Education Approval Board will be the final authority to approve changes in the organizational structure and all proposals should be brought before it for approval.

4.7.6 No separate 'computer teacher' are needed for transacting and basic computer literacy can be taken care of by the teacher educators and teachers. The implication of seeing ICTs as a method of teaching-learning is that ICTs will not be the responsibility of one teacher-educator. All teacher-educators will need to bring in ICTs in relevant ways into their teaching-learning, both in-service and pre-service; all subject experts would also have knowledge of relevant ICT in their domain.

4.8 Systemic linkages

4.8.1 DIETs have tended to remain insular and insulated from key sites of education decision-making and activity at the district level. They must break of their isolation and enter into active engagement and collaboration with institutions at the District, sub-district, state, national and international levels.

DIETs must form active relationships with other district level institutions and fora that are contributing to and shaping elementary education and children's all round development. The DIET must interact with the Zilla Parishad (ZP) on matters of education and quality. Many issues of elementary education require an inter-departmental approach. The Departments of Social Welfare, Tribal Welfare, Minority Education, Women and Child, Health, Sports and Youth are relevant Government Departments with whom DIET interaction is necessary. DIETs could have members (by rotation) on different advisory committees.

4.8.2 Formal linkages with district teacher associations and other centers for teacher development such as B.Ed and D.Ed colleges and University Department of Education are necessary. In addition linkages with higher Education Institutions in the District should also be nurtured.

4.8.3 DIETs are directly administered by the SCERTs. To promote institutional autonomy at the level of the DIET itself, the SCERTs will need to move away from a hierarchical relationship to nurture DIETs. When State priorities are being defined, the formal involvement of DIETs in this exercise is essential. SCERT should nurture a professional forum for interaction with DIET principles. DIET personnel could be members of various committees under the SCERT (eg Program Advisory Committee, Policy Research Committee and the TE Pre-Service curriculum Committee). State programmes can be made functional across DIETs by (a) coordination between state and District planning processes (b) having a few, limited programmes for state wide implementation and organizing regular interaction meetings between SCERT and all the DIETs. DIETs could have a similar relationship with SIEMATs.

4.8.4 SCERT also needs to find ways to provide academic support and leadership to DIETs. A cell could be established which would focus on supporting the development of DIETs.

4.8.5 National, International and Non Government Organisations working on issues such as 'Child Labour', 'Children's rights', disabilities, etc. increasingly have a District presence. Formal interaction of these institutions and agencies at the District level would benefit organizations and work, and also avoid unnecessary duplication or working at cross purposes. The work of such organizations and institutions should be routed to the District through the DIET as the lead coordinator of academic work with schools and teachers. An annual appraisal of their work should be presented at the DIET faculty forum, and also shared and discussed at the PAC.

4.8.6 DIET linkage with the linkages with the Block Resource Centres and the Cluster Resource Centres are important. As Inservice Teacher Education and Professional Support to teachers is the core mandate of the BRCs and CRCs, their work must be coordinated with the DIETs through formal mechanisms, both for the purpose of quality maintenance and also to bring about coordination at the district level to provide overall direction for this work. Core reforms are also required in the inservice teacher education sector, including quality of training

and professionalization of the organization of trainings.

The BRC is visualized as the place which:

1. Provides co-ordination and oversight of CRPs for school improvement and support
2. Coordinates and Conducts Trainings
3. Manages education data within the block
4. Acts as a Repository of Knowledge Resources

The DIET could oversee these functions of the BRC and provide support through establishing a Block Support Cell which would frequently plan visits to the BRCs. The DIET, could support BRCs through:

1. Overview and Coordination of School Improvement Plan – The DIET would supervise the performance of the block and cluster personnel and guide the specific approach(es) chosen in their district. They would support the BRC to overcome challenges that come in implementing programs for school improvement in accordance with the chosen approach.
2. Design and Delivery of Training – DIETs would work to ensure quality and relevance of training. In addition to inputs and review of training design, small research studies could be carried out to review training standards and efficacy.
3. Training Management —overall all training being received by teachers in the district would be centrally pooled in a training management system, bringing more coordination in this work. DIETs could also coordinate between BRCs-CRCs and NGOs in the District all of whom may be contributing to teacher training Any agency offering training to teachers in the District could route this activity via the DIET.
4. Head Teacher Training – DIET could provide trainings designed for Head Teachers. These trainings would be different from those given to teachers and focus on themes like school leadership and teacher motivation.
5. Development of MRP Pool – MRP pools need to be nurtured through developing subject expertise, pedagogic ideas and training of trainer related skills. DIETs could lead this effort at the District level and the bulk of its training work could be directed at nurturing this resource person pool in the district.
6. Database of Experts – The DIET may become the nodal centre that maintains a data base of experts available at the District, Block or Cluster level who can be called on from time to time.

4.8.7 The DIET also needs to interact closely with IASE and CTEs within the district to ensure that they complement each other in meeting the training needs of teachers in the District.

4.8.8 DIETs must also nurture interaction with Universities in order to draw on contemporary knowledge and research. University collaborations for research and training should be encouraged. DIETs could also nurture strong inter linkages with some nearby university Departments and build synergies between institutions with possibilities of co-developed and

implemented programmes, faculty and student exchange, collaborative research and training.

4.9 Scheme of interactions

A scheme of interactions between the DIET and various other institutions/agencies has been suggested below:

DIET Meeting With	Frequency	Purpose	Indicative Agenda Items
Program Advisory Committee—	Twice a year	Guidance of DIET work, Approval of plans and budget, performance Reviews	a) Review of school internship planning b) Approval of AWP c) Review of key AWP activities d) DIET requests for community involvement in teacher education activities e) Hiring of independent consultants/MRPs
EC	Once every quarter	Guidance of DIET work, Ratification of decisions	a) Quarterly review of DIET work b) Requests for approval of activities/initiatives not under AWP.
DIET faculty meeting	Once a fortnight or once a month	Internal coordination and pooling of information on various activities. Working groups could present updates	
Sub-district level Resource centers (BRCs/CRCs)	Once a month	Updates on school quality, Training needs of schools, Community feedback	a) Issues of school teachers b) Social equity educational issues which came up during community interaction c) Report of CRC work..
NGOs/International agencies	Once a quarter	Synergize NGO educational work	a) Update on kind of work being done by different NGOs b) Schools Impacted

SCERT	Once a month	Synergize state education work,	a) Recent central and state directives
IASE/CTE	Once a quarter	clarity on administration issues	b) Issues in PSTE across institutions c) Curricular changes to PSTE d) Inservice training agenda

5. Personnel

5.1 Effectiveness of the DIETs hinges on the quality of its personnel and the policies being followed. It is imperative for states to evolve ways through which women and men of aptitude, merit, enthusiasm and dedication are inducted into the DIETs, and are provided opportunities of professional growth, creative work and career advancement in the academic stream. This is one area in which there has been inadequate progress in most states, and in urgent need of action and reform.

5.1.1 Some of the current problems that need to be addressed include the following:

- a) DIET faculty tend to have BEd degrees and do not have expertise in or experience of elementary education.
- b) DIET faculty may not have higher degrees in education and do not have appropriate qualification to work as teacher educators (MA/MEd Education or in related disciplines such as psychology, philosophy).
- a) Without adequate expertise and experience, DIET faculty often do not feel competent to contribute core academic work and tend to assume administrative roles.
- b) c) DIET faculty is not stable and frequent transfers out of academic positions to administrative positions creates a high level of instability in many institutions.

5.1.2 It is crucial to have clarity on how to enable DIET faculty to DO academic work themselves rather than only being administrators of academic work. The design and approach to capacity building also requires this basic clarity of faculty roles vis-à-vis academic work.

5.2 Ensuring relevant academic expertise

A strategy to ensure that DIETS have relevant academic expertise and are able to retain them, is required on four fronts:

- a) Appointment of faculty with appropriate qualifications and experience need to be opened up. This must include fresh appointments along with opportunities for promotion within the education cadre.
 - f) Capacity building of faculty must be provided for so that over time faculty acquire appropriate expertise in subject areas of relevance to teacher professional development/teacher education and to do research in education.
 - g) Opening up a few visiting positions to enable teachers and others to spend short period of time in the DIET and work with student teachers or teachers and teacher educators.
 - h) Creating a cadre of teacher educators in the State to serve the academic resource institutions or direct recruitment could be considered.

States must commit to reviewing and opening up recruitment to bring talent and capacity to DIETs including direct recruitment and visiting positions. Persons coming on a lien from

Universities or other institutions could also be encouraged. Developing career progressions for academic streams and encadrement could also be considered to retain talent.

5.2.3 Visiting positions could include BRPs, CRPs and Teachers who come on short term fellowships and university persons who can spend time in DIETs, as faculty would be useful. It would also break the isolation of DIETs and bring universities into a more fruitful relationship with the governmental schooling system. Each DIETs could have an artist or theatre person in residence who could work with teachers and children for short durations. Short term visiting faculty from Universities or retired faculty from universities could also contribute to workshops for teachers in specialized areas. E.g. conducting science experiments, or astronomy workshop, etc. The State could allocate a small fund for such visiting positions.

5.3 Retaining Teacher Educators/filling posts:

5.3.1 There is pressing need to ensure that all posts in DIETs are filled with suitable faculty and that these faculty are retained. Retaining faculty in the academic stream will also become important. When investments are made in capacity building, the system must benefit from this by using capacities in suitable roles.

5.3.2 Creating a cadre of teacher educators could help to retain and nurture academically qualified people who also understand and develop expertise for various activities in education. This could also enhance a sense of professional identity. Alternatively faculty could be recruited by and appointed to a given DIET and a system of advertising for vacant positions against which faculty and others could apply. A third system could involve a mix of both, with a proportion being directly recruited, a proportion coming from a cadre and a proportion on deputation or on lien.

5.3.3 DIET faculty in turn could take up for limited period of time, assignments of an administrative character. This exposure would enhance capabilities and give a wider understanding, after which faculty should be able to return to their cadre. Faculty could also take up short term assignments in other organizations, NGOs or academic institutions after which they would return to the DIETs.

5.3.4 A cadre would need to work out and provide its own career and remuneration progression. Modelling the cadre on the University system (Professor, Associate Professor, Assistant Professor Senior and Assistant Professor) could be considered. The cadre of teacher educators could serve DIETs, CTEs, and SCERTs. With equivalence established, there could also be some movement of faculty to Universities for short periods.

5.3.5 DIETS have an additional problem of being **chronically understaffed**. In many DIETs about 50% of the posts are unfilled. Added to this is the problem that existing faculty are frequently drawn upon by the State institutions for their own training, textbook writing and coordination requirements. Additional programmes from Centre of State given to DIETs also add to the overall work requirements. This situation also needs to be addressed by measures on

several fronts.

- a) The Principal of a DIET should also be empowered to appoint ad-hoc faculty and guest faculty to meet the institute's personnel requirements. Such selection could be undertaken through advertisement and selection processes at the DIET and ratified by the EC.
- b) Funding for additional faculty should be provided by programmes which are added to DIETs.
- c) The DIET faculty posts could have a minimum tenure of 3 years and no more than 1/3rd of faculty can be transferred so that there is a richer understanding of the local educational issues and deeper institutional memory .

5.4 The **Principal** of the DIET is an important role making a significant difference to how effectively the DIET is able to function to meet its varied roles. Leadership would facilitate and enable the institution and faculty to work more effectively by:

1. Linking DIET to larger educational concerns, community and educational activities at the District level and State level, thus addressing the problem of insularity.
2. Focussing DIET faculty and DIET activities around meaningful and achievable goals. They can be empanelled and ask to customise course design.
3. Exercising autonomy to use opportunities of research and development at different levels.
4. Motivating staff to maximize individual initiative as well as to work in teams.
5. Organising people and taking initiative, even with respect to financial allocations, to enable staff to undertake their activities.
6. Enabling institution and faculty to relate to each other through non-hierarchical ways.
7. Providing regular monitoring and supervision of various delegated tasks.
8. Sharing credit and sense of achievement with all faculty.
9. Bringing about educational change and thinking through systemic effects.

5.4.1 Given the crucial nature of this job in achieving the agenda of the 12th plan to revitalise the DIET, this appointment is of great importance and adequate importance and process should be applied to ensure that the best people are selected for this position. Advertisement to enable direct recruitment as well as selection panels should be considered as ways to ensure that good talent is recruited for this post. The principal once recruited should have a full tenure of five years to lead the institution and to realise the institutional vision. She/He must also be provided with adequate freedom and support in the selection of faculty as well as in the organisation of the institution, setting its goals and formulating its activities.

5.5 Personnel Qualifications

5.6.1 Basic Qualifications

No.	Post	Recommended Qualifications and Experience
1	Principal	MA (Ed) or MEd or M. Phil (Ed) or PhD (Ed) Experience : Elementary/Higher Secondary school/ College principal (min experience 5 years) or Dy Director in a State Education Dept experience (at least 1 year) or CEO of a NGO in education of more than 30 people (at least 5 years) Or Professor or Reader in Department of Education at University.
2	Vice Principal	MA (Ed) or MEd or M. Phil (Ed) or PhD (Ed) Experience: School teaching experience of at least three years, preferably at the elementary level and administrative experience of at least 2 years. Or Professor or Associate Professor in Department of Education in University.
3	Sr Lecturer	MA (Ed) or MEd or M. Phil (Ed) or PhD (Ed) with a teaching experience of at least 5 years with at least two years experience of school teaching preferably at the elementary level. Or Associate Professor/Assistant Professor in University Department of Education Or Qualifications as specified by NCTE for Teacher Educators With specialization in relevant area/established expertise in relevant area (please see 6.6.2 below)
4	Lecturer	MA (edu) or MEd or M. Phil (Ed) or PhD (Ed) Experience of at least two years school teaching preferably at the elementary level. Or Assistant Professor in University Department of Education. Or Qualifications specified by NCTE for Teacher Educators With specialization in relevant area/established expertise in relevant area (please see 6.6.2 below)
5	Admin staff-	As per government rules in the state for various positions.
6	Librarian	Library Sciences graduate; preferably with experience of working in a school library or library of a teacher education institution.

5.5.2 Subject specialization/Expertise requirements

Various specialization areas are required in the faculty in order to enable them to work as teacher educators both in the preservice and inservice spaces and also to carry on various other academic tasks to support teachers, schools and children's learning. The complement of faculty should

reflect the range of specializations required.

The table below provides the broad areas of specializations in the foundations and core academic pedagogy areas which would be required among faculty. The routes through which such expertise may be gained is also provided in columns (3) and (4) of the table.

		Qualification routes	Additional
Education Foundations	Philosophy Sociology Child Development Psychology Human relations and communications	(i) BSc/MSc & BEd/BEIEd-MEd/MA(ed)/MPhil(ed)/PhD (ed) + NET (ii) BA/MA BEd-MEd/MA(ed)/MPhil(ed) +NET (iii) MA (Phil/socio/psycho/Child Dev) & MEd/MA(Ed)/MPhil(Ed) +NET (iv) DEd & BA/BSc & MEd/MAEd +NET (v) PhD (Phil, socio, child dev, psycho, edu) with relevant topic of research and relevant course work credits +NET (relevant fndn area +TE)	NET (spl paper+ TE) Additional points for relevant coursework/ certificate courses such as IGNOU child development
Language Education		(i) BA/MA -BEd/BEIEd(with lang spl papers)- MEd/MA(ed)/MPhil(ed)/PhD (ed) (ii) DEd & BA(lang) & MEd/MAEd/MPhil (Ed)/PhD(Ed) +NET (lang education + TE) (iii) MA(lang) & M.Ed/MA (Ed) (with spl papers in language education)	
Mathematics Education / Science Education		(i) BSc/MSc/BTech/ MBBS - BEd/BEIEd(with math ed spl papers)- MEd/MA(ed)/MPhil(ed)/PhD (ed/Sc/maths education) (ii) DEd & BSc(maths/science) & MEd/MAEd/MPhil (Ed)/PhD(Ed)/PhD Sc. Edu +	NET— maths /Science education + TE additional points/value for

		M.Sc(Maths/Sc)/ BTech/MBBS & M.Ed/MA (Ed) (with spl papers in Sc/maths education)	course such as IGNOU AMT
Social Science Education		(i) BA/MA -BEd/BEIEd(with Soc Sc papers)- MEd/MA(ed)/MPhil(ed)/PhD (ed) (ii) DEd & BA(Soc Sc) & MEd/MAEd/MPhil (Ed)/PhD(Ed) (iii) MA(Soc Sc.) & M.Ed/MA (Ed) (with spl papers in language education)	NET: Social Science Education + Teacher Education
Physical Education		(ii) BPed and MPed	
Creative and Performing and Fine Arts Education		(iii) Diploma or Degree in Creative Arts or Fine Arts or Performing Arts	
School Management, Leadership and Governance, Community school inter-relationship		i. BA/MA/MBA/MA/BEd/MEd/ MA (Ed) (with spl papers in school/education leadership management/governance/public policy) ii. MSW with school social work iii. MA (Administration) with school/Education administration iv. Masters Degree with MPhil/PhD in Social Sciences with specialization in school leadership and administration.	
Inclusive/Special Education		BEd, MEd in Special Education MSW in disability studies with focus on disabilities and education MSc in speech and hearing with on remedial education.	

In addition it is desirable that all faculty should have experience of school teaching preferably at the elementary education level. They should be able to contribute to curriculum and materials design, multigrade/multilevel teaching, children's assessment and both in and preservice teacher education, in their areas of expertise. They should be knowledgeable about the use of ICT in education and teacher education, and also be able to design, carry out and report research.

In Districts where there are larger numbers of children from tribal communities or SC or other

under privileged groups and issues concerning education of girls, these areas may also be specified and sought as additional specialisation in faculty.

5.5.3 Additional expertise can be brought in through visiting fellowships and short term and part time appointments, which have been discussed earlier in section 5.2.3. Additional programmes brought into the DIET must also bring with them overheads for additional administrative costs. Research programmes need to be able to appoint short term staff contractually or part time for data entry. Consultancy for statistical analysis etc. could also be built into research budgets.

5.5.4 The Resource Centre of the DIET must be supported with adequate permanent staff.

Resource Centre in Charge (Librarian)	BA/MA with BLibScience preferably with experience of working in a school library
Assistant Librarian	BA with Diploma in Library Science with experience of working in a school library
Documentation/Statistical Officer	
ICT assistant	
Equipment (Lab) assistant/maintenance	

The Resource Centre of the DIET must have an advisory group lead by a DIET senior faculty who can plan and monitor the working of the resource centre. The Resource Centre would need to work closely with both the PSTE programme as well as the inservice programmes of the DIET and provide facilities to a range of users including teachers, student teachers and teacher educators. A strong resource Centre team could also support extension work towards rejuvenating school libraries. The Documentation officer would enable effective compilation of various documents pertaining to education in the District as well as activities being carried out in the DIET.

5.5.5 Administrative support, Programme Management for preservice and inservice education need to be provided for so that faculty time is used fully for academic purposes and logistics and accounts are maintained by people with expertise and experience for these tasks. The administrative work of the DIET must additionally be supported with data entry operators and accounts personnel and clerical staff. ICT enabled administration is essential.

5.5.6 DIETs must have adequate cleaning and maintenance staff to ensure the upkeep of the premises and infrastructure.

5.5.6 The organization of DIET faculty has been discussed earlier in section 4.3 where two models have been proposed.

5.7 Faculty Development and Capacity building

5.7.1 A strong programme of capacity building will need to be instituted in the state and made available to DIET faculty and to those aspiring to be faculty in the DIETs. This is very important given the fact that adequate personnel with desirable profiles will not be available on the scale that is required, and that existing personnel will need to continue to work, but may have inadequate expertise and orientation to work in the DIET. A range of professional growth and capacity building opportunities need to be conceptualized and made available to faculty. Orientation workshops would be kept to the minimum.

5.7.2 Continuing Education

- a) Short courses, diplomas, certificates. A range of such courses need to be developed by various institutions of higher education in the State, including Universities, IASEs and some capable NGOs with relevant expertise. These courses need to be conceived of so that absence from the institute is not excessive. Use of blended learning and modular type courses could also be considered. Courses could include a component of independent work as well as evaluation of the participant. Courses lists which are recommended for DIET faculty could be compiled by the SCERT and information provided to DIET faculty so that they can avail of such opportunities. The state must evolve a policy of granting leave to faculty to undertake such courses and also to fully support or subsidise the fee for these courses.
- b) Courses need to be held in areas such as pedagogy and curriculum of all subject areas, child development, cognition and learning, aims of education, sociological understanding of 'backwardness', 'failure', 'underachievement', literacy for first generation school goers, evaluation and assessment, use of ICT in relation to subjects, ICT for blended learning and collaboration, resource creation, use of wikis, its uses and limitations, etc.
- c) Higher education (MA/MPhil/PhD or Diplomas) in areas of relevance including education, curriculum and pedagogy, teacher education, assessment, special education, ICT in education, and in allied disciplines such as sociology, psychology, philosophy, etc, with focus on education. Faculty who are registered for such courses may be provided with leave with/without pay for upto two years, with the requirement that the next five years of service will be in a DIET.
- d) States which have insufficient qualified teacher educators could consider nominating faculty for programmes of higher study.

5.7.3 Seminars, Workshops and Study Tours

- a) Attendance at Seminars to present papers should be encouraged and appreciated.
- b) Participating in seminars or in workshops could also be counted towards professional development.
- c) Study Tours could be undertaken by faculty so that at least once in two years, each faculty member goes on an exposure trip of upto 5 days. These trips could be to model and innovative schools or to innovative teacher education institutions or centres with outreach for school students and teachers.

Funds may be earmarked to support travel and stay and registration for such seminars and workshops. A system of allocating such opportunities and grants may be evolved.

5.7.4 Research and Publication

- a) Every member of faculty must be involved in carrying out a small or medium research study. Preference in terms of quantum of funding could be given to research studies that are carried out collaboratively between DIETs or with Universities or NGOs. Action Research Projects in which DIET faculty collaborate with school teachers may also be given preference in funding.
- b) Faculty should be required to present their ongoing research at seminars and other for a. They must make a presentation at least once a year in the DIET faculty forum.
- c) Faculty should be encouraged to publish their work and write in journals, magazines and newspapers.
- d) DIET should also support publication by teachers in the Districts. Small grants and support for publication could be made available.
- e) The DIET could publish once a year, or create on-line a DIET magazine carrying articles by student teachers, teacher educators and teachers of the District.

5.7.5 Study and Research Leave and Fellowships

Faculty of DIETs should be able to avail of study leave and sabbatical for the purposes of higher studies, to take up fellowship opportunities and to undertake research or publication. Faculty could also be permitted to go on leave or be deputed to work with Universities or NGOs in Education for a period of two years (extendable by one additional year) to gain exposure and experience of different work cultures and issues.

5.7.6 Biennial DIET Congress

A DIET congress could be held once in two years. Faculty from DIET all across the country could meet together to exchange ideas on pedagogy, curriculum, student internships and teaching-learning resources. The congress could also have workshops with academicians and practitioners to get a deeper insight into developments and innovations in teacher education. This idea could also be implemented more frequently on a smaller scale – eg state-wise or region-wise DIET Congress. This activity could be supported by central organization and support from State budgets and individual DIET budgets for travel and stay.

5.7.7 A comprehensive policy of professional development for teacher educators needs to be put in place by each State government.

5.8 Institutional Work Culture

A motivated group of faculty working under a facilitative leadership can become a catalyst for significant academic innovation, reform and achievement in the District. The Institutional work

culture needs to nurture creative professional practices. Standards for work need to be arrived at consensually rather than being driven by external monitoring. Self-assessment, performance appraisals and peer reviews would be able to nurture the professional culture. The only 'incentive' to innovate in this system can be recognition of work, not monetary benefits; hence the importance of a supportive and encouraging environment. Empowerment and a need for mobility will be outcomes of a good professional development and capacity building.

The leadership of the institute must be in a position to take full advantage of this empowerment and initiative taking rather than imposing hierarchy and stifling agency. Leadership awareness of and skills in conflict management and devolving authority needs to be nurtured.

5.8.1 Annual Faculty appraisal systems need to be evolved and practiced within the DIETs. Academic (teaching and research) and Administrative roles both need to be appraised. The work of each sub programme also needs to be appraised annually.

6 Getting There

6.1 Having set out these guidelines, a key issue is how can states plan and strategise so that they are able to get all their DIETs to function as effective institutions. Given the large number of such institutions in each state and that the range and scope of reforms required is ambitious, states will need to approach this with determination and perhaps in a phased manner. It would be necessary to enable a systemic focus on the DIETS and to facilitate achieving important and necessary structural and personnel changes that are necessary. Some of the possible routes for this are suggested:

6.2 Each State must develop an overarching state perspective plan for the DIETs regarding the DIETs, identifying key areas of reform and key focus points for the 12th plan period. A vision for the role that these institutions are expected to play vis a vis other state institutions and district institutions needs to be articulated. An overarching strategy for both teacher professional development (in and preservice) would support such and exercise.

6.3 Each State can set up a task force to develop and oversee the plan and process. This task force could comprise personnel from the Department and additional experts and be led by a chairperson appointed for this purpose, with adequate support staff. This period of this task force could coincide with the period of the plan. The task force could produce a strategic plan for how to achieve the plan, identify key points of action, and to keep on course. If there is already a commission or task force for education reform and revitalisation, then the need for DIETs could be flagged and be a focus area for the period of the 12th plan.

6.4 After a review of all resource institutions, each state can choose to develop a minimum number of DIETs throughout the state as nodal/model DIETs so that the full range of ideal structure, infrastructure and functioning is realized by placing relatively senior persons in charge as principle and giving them additional autonomy to arrive at the desirable structure and functions. This may be necessary as the academic vision which is being proposed will need to be nurtured and spread through demonstration.

6.4.1 These DIETs could in turn play a nodal function and enable others also to realize institutional vision, structure and functioning in a time bound way. Having working model institutions will enable new ones to understand and enter into these roles more effectively. New faculty could also be attached to such nodal institutions for a few months in order to orient them to the functions expected. Such nodal institutions would effectively become training sites for DIETs.

6.5 The SCERT could establish a DIET cell internally, or it could mandate a University/universities DIET support Cell in different regions to play a role in supporting a group of DIETs to develop their academic capabilities and orient their work towards the district.

The mandate of such groups would need to extend to both capacity building as well as work and functioning.

6.5 Universities and other HEIs could be invited to design short term courses for capacity building of DIET faculty and DIET faculty could be encouraged to take up these courses of study.

6.6 Guidelines to outline how DIETs could collaborate and also empanelling various organization and universities with whom DIETs could collaborate can be developed by each state and overseen by the SCERT. These guidelines could also include ways and focus areas where corporates could partner with the DIET as a part of Corporate Social Responsibility initiatives. (Infrastructure development, Developing and stocking Resource Centers, Training management, website design etc.).

6.7 The MHRD Website on Teacher Education provides a platform and resources on an ongoing basis for strengthening various dimensions of teacher education institutions, especially within the context of the 12th plan. An ongoing review, annual and mid term would provide all stakeholders with opportunities to revisit, review and revise strategies.

6.7 Indicators for Monitoring and Strengthening DIETs

6.7.1 .How could we quickly assess if a DIET is doing what it should be doing? Indicators which summarise and simplify the complex work and impact of the DIET could help in assessing its performance and its processes. Indicators would be of use internally to each DIET to review where it stands and keep a focus on its goals, and identify areas for improvement. The would also assist in any external monitoring process.

6.7.2 These indicators can help the DIET and various state/local bodies to assess internally and also to compare with other DIETs and identify areas of improvement. The PAC could use the indicators and set up milestones based on them, or compare achievement in a given year with the previous year to assess DIET performance. They could also be used at the State and Central level to compare DIETs across and within states and direct funding to suggest areas where the DIETs could focus. Independent and well reputed institutions (Universities, etc) engaged in teacher education could use these indicators and support the DIET in capacity building.

6.7.3 The indicators as well as the process by which they could be used for various purposes should be discussed by States with all DIETs, so that a the process of understanding of how they are to be used and how to use the assessment reports becomes a part of the institutional visioning and focusing exercise itself . Based on internal understanding indicators could be used

differentially and contribute to the formation of the AWP. A strong well-performing DIET, could measure and report all the indicators, use them to draw up the AWP and be allowed greater autonomy while weaker DIETs could measure fewer key indicators and be provided more directional support.

6.7.4 Indicators are best used along with other performance reports preferably of a more qualitative character, to build a more complete picture of DIET performance. Reports may suggest actions for improvement and support which are internal to the DIET or external and of a systemic character. Both DIETs and the SCERT would need to reflect on and respond to the issues that are thrown up by such a report.

6.7.5 Process Indicators

- Number of documented faculty reflection meetings every month
- Number of visitors to the DIET Resource Center every month (this excludes student visits during the library period)
- Number of DIET faculty visits to schools in a quarter (each visit to be at least 4 hours of interaction)
- Quarterly feedback on the in-service education(Positive Feedback refers to anonymous response which rates the program > 7 on a 10 point scale)
- Number of student applications with more than 2 years of teaching experience for a B.Ed/M.Ed course
- Feedback on the PSTE by student teachers
- Number of proposals approved by the PAC – measured every quarter
- Kind of proposals approved by the PAC – measured every quarter (eg. projects on elementary education, infrastructure projects, pedagogical interventions)
- Number of research proposals (submitted, accepted, completed)
- Number of teacher workshops and programs
- Areas of inquiry in a year (depth of the inquiry rather than number or diversity should be the focus)
- Number of times the funds were released on time to the DIETs – measured every quarter based on DIET Principal's feedback.
- Number of internal DIET meetings
- The most talked-about process improvement in the year
- Key challenges in conducting teacher workshops
- Improvements in systemic interactions (engagement with other institutions)

6.7.6 Performance Indicators

- Teacher:Student Ratio (each DIET) [Teacher includes both lecturer, Sr lecturers]
- Teacher:Student Ratio (each Private college offering D.Ed/B.Ed) [Teacher includes both lecturer and Senior lecturers]
- Composite Teacher: Student Ratio (for the state)
- Percentage of DIETs and IASEs using a Training Management System

- Percentage of DIETs, IASE, CTEs with technology enabled infrastructure (functioning computers, internet connection, email id and multi-media facilities)
- Average duration of Principalship in the last 5 years (by institution type)
- Percentage of faculty positions filled (by institution type)
- Average age and dispersion of faculty
- Percentage of new books (< 3 years old) in the institution library
- Percentage of D.Ed, B.Ed, B.El.Ed graduates who continue to teach after 1 year of graduation (this could be based on a sample)
- Percentage of faculty who went on a study leave/sabbatical for more than 1 month in the last one year
- Percentage of graduates who clear the TET
- Publications (Academic/popular), Reports, Presentations
- Document which attracted the most attention in the year
- Key initiatives conducted jointly with other organisations
- The most issued library books and periodicals- by students, by faculty

6.7.7 The process by which indicators are filled should include compiling the report internally. Presenting and discussing the report internally at a faculty meeting and suggesting strategies and recommendations based on the findings. Presenting the report at the EC and PAC for discussion and action. Presenting the report with the minutes of the faculty meeting and EC and PAC meetings at the SCERT for review and actions.

Annexure : Integrating ICTs into teacher education

A.1 ICT Literacy

ICTs is a very broad domain, and affects almost all other aspects of life, the socio-cultural, the political and the economic. Since education is concerned with preparing learners to become responsible citizens, there is a great need for student-teachers to acquire a basic understanding of ICTs as well as the new phenomenon called the Internet. Hitherto, we have focused very narrowly on basic proprietary software, but we need to expose student-teachers to a larger gamut of ICTs, so that they have basic understanding and can develop skills in areas that interest them. The course curriculum should hence cover the following

Basic hardware knowledge - Computers – laptops, net-books, tablets, radio and audio recorders, camera, Printer/peripherals; Cell phones

Basic software knowledge - Public operating systems (e.g. GNU or Linux) - virus free, free of cost/free to share, hundreds of tools, supports most languages

Basic knowledge of Internet and web based tools and resources including of cyber security – avoiding dangers and risks as well as basic website and web tools use (for creating and maintaining institutional resource portals etc)

Larger socio-cultural, political and economic implications of the emerging network society, an effect of ICTs.

The goal in ICT literacy must be to expose teachers to a wide variety of ICT resources – hardware, software as well as content. This requires an emphasis on using available free / public digital resources.

Teachers must not treat ICTs as a black box – they should be taught to install even the operating system, open up hardware to study components. Programs that have done this (e.g. Kerala's IT@schools programme) have seen enormous confidence developed in teachers. Learning to install software and freely installing it on multiple computers (without such act being a violation of law) serves as a significant inhibition destroying process and

encourages teachers to begin a journey of learning in the digital world. Teachers become learners and teachers instead of being consumers/users who have no idea and no right to study, share or customise resources. Inexpensive computers / devices that support access and participation in the digital space, need to be promoted on large scale, even now schools purchase desktops, which are *expensive, inefficient and obsolete*. There are inexpensive Netbooks with good power backup, need to be provided to all schools/ student-teachers (interest free loans to teachers to buy as personal computers must be allowed, to ensure access on a 1:1 basis for student-teachers as well as teacher-educators.

Teachers need to be given access to ICTs and made comfortable and competent in using ICTs before children are provided free access. The recent trend of providing ICTs to students (Akash, CAL, OLPC) without any similar provision for teachers can be dangerous, since teachers role in facilitating learning how to navigate the digital space is indispensable. Children left to their digital devices, without possibilities of a teachers mediation and guidance would may simply not make best use of the learning possibilities and also would be highly vulnerable to abuse in the digital space. The 'entertainment' potential of the Internet vastly surpasses that of TV and hence providing them access without any guidance/facilitation of teachers could be more harmful than exposing them to hours of television entertainment programs and could have distressing implications for learning. A 'No-Teacher-Left-Behind' policy to ensure teacher access and use needs to be seen as a pre-requisite to distributing devices to students.

Secondly tablets which are in nature of 'smart phones' do not allow full range of participatory possibilities to learners and hence may be inferior from a pedagogical perspective, than computers. This needs to be carefully considered.

A.2 ICT Aided Learning / integrating ICTs into subject teaching-learning

The biggest failure so far in ICTs has been to treat it as a stand-alone subject, however it is a new and powerful method for mediating teaching-learning and hence needs to be integrated into different subjects. To integrate, the steps of accessing, reviewing, creating and sharing resources are to be structured into formal curricular experiences. Existing digital resource repositories from governments and NGOs including audio resources (EDC), video resources, animation movies etc. should be made widely *accessible*. It is important to make the resources available in district repositories linked to state repository. Student-teachers also need to learn how to access the world wide web for resources, including principles governing quality, authenticity of resources, rules of fair use etc. Student-teachers need to integrate ICTs into their subject teaching-learning, using varied *digital methods to create* learning resources:

using *educational software applications, such as*

Maths – Geogebra, Bruch, K Turtle

Languages - SCIM (multi-language typing), K Hangman etc. (language)

Science – STEP, Stars, Stellar etc (astronomy), Kalzium

Social Science - Marble (geography), KGeography, OpenMaps

other subjects - Freemind (creative thinking) for creating concept maps

web tools like wiki, blogs

digital tools like video camera and video/photo/audio software applications including recordmydesktop, Kdenlive, Audacity etc. as well as CBTs such as spoken tutorials (www.Spoken-Tutorial.org)

A.3 Blended learning in TE

Complementing physical workshops/meetings with virtual interactions over a mailing-list or an e-learning forum such as moodle provides new models of TE through ICTs. The TISS MA Education program (www.tiss.edu/mace) which is 5+ years old is able to offer the program to students across the country and also access faculty from across the country, because each of the four semesters consists of a 3 week contact period (on-site) followed by a 12 week course transaction over Moodle. Since Moodle is a public software, the course has customized it for its own specific requirements. Similar programs need to be offered by DIETs to teachers which can allow learners to learn at their own pace (relatively) and also reach a larger number of teachers than is possible through purely physical interactions.

Blended models also allow for greater possibilities for addressing the diverse and heterogeneous learners needs,

since the teaching-learning is not restricted to the classroom and virtual learning spaces allow for greater one-one interactions, at space and time convenient to the teacher-educators and student teachers. Thus blended models can allow for catering to diverse learning needs, contexts and aspirations.

It is also important to note that the distant modes have been an integral part all over the globe in Teacher professional Development and distance education is merging into blended learning, more effectively combining contact period and on-line interactions. In the context of teacher education, distance learning has more than one aim and audience. It has been used as a *pre-service* teacher preparation method with “teacher candidates,” mostly with extensive face-to-face preparation (often as part of a formal dual-mode institution, such as the University of the West Indies). In developing and developed-country contexts, it has been deployed as an *in-service* vehicle to fulfil a mandate to upgrade the knowledge, skills and qualifications of an existing teaching force. Finally, and predominantly within developed-country contexts, distance education, mainly in the form of web-based education, serves as a vehicle for *continuing education*, offering enrichment, enhancement and additional certifications for teachers who have attained at least a minimum level of certification in their content/grade-level area.

A.4 Suggested Roadmap for ICT integration into DIET processes

No	Activity	Resources required	Indicative costs (for a DIET with 100 students)
1	Create / upgrade required ICT infrastructure in each institution	Computers, Internet, camera, audio recorders, storage devices. Broadband wireless connectivity	100 access devices would cost 20,00,000 and this can be acquired over a 3 year period. Other costs would not be more than couple of lakhs. Various programs of central and state government provide budgetary support for acquiring ICT infrastructure
2	Build basic ICT literacy capacities in teacher-educators	Master resource persons to train the teacher-educators	Training costs, based on a blended model, combining 10 days workshop based, spread over 3-4 phases and a on-line email/portal based interactions
3	Build capabilities in teacher-educators to use ICTs for their subject teaching-learning	Master resource persons to train the teacher-educators	Training costs, based on a blended model, combining 10 days workshop based, spread over 3-5 phases and a on-line email/portal based interactions
4	Build capabilities in teacher-educators to use ICTs for their own continuous and life-long professional development	Master resource persons to train the teacher-educator	Annual program of training for teacher-educators, on a blended model, combining 5 days workshop based, spread over 1-2 phases and a on-line email/portal based interactions
5	Teacher-educators to work with student-teachers and teachers to support their layered learning for ICT mediation in teaching-learning	Teacher-educators	Part of regular PSTE program.
6	Maintenance of the infrastructure	Lab attendant, consumables	Around 15% of the capital costs should be provided for maintenance and upgrade of infrastructure
7	Maintaining a web-portal /e-learning system (can be done as a second phase, after basic capacity	One web administrator. Resources for the portal would be created by the	Apart from the web administrator, the costs of maintaining the portal would be around 10,000 per year.

	building of all teacher-educators in first phase)	faculty as a part of their regular teaching and research work.	
8	Offering blended courses	Course creation and administration costs – largely part of people costs and should subsume into regular activities of the institution	Designing courses offered on a blended model with a large virtual component can be coordinated by SCERT with identified DIETs. Courses and faculty can be virtually shared across institutions

A.5 First and second generation ICT programs

First generation ICT programs in school system – use a 'technological perspective'.

Program usually stops with providing hardware (and pre-packaged software). Curriculum pertains to basic computer literacy (proprietary operating system and proprietary Office suite) or consists of pre-packaged content (CD ROMs). Operating system and Office are pedagogically not relevant. Using only pre-packaged content can reinforce existing “behaviorist learning” approaches, making teaching-learning passive.

Program is often transacted by computer teachers – who are trained in computer science and not in regular school subjects. Hence, the program is seen as a standalone experiment not connected to the regular teaching-learning processes in the school

Program bypasses teachers and goes directly to students through the computer teacher. No curricular process bypassing teachers can scale or sustain.

Teachers do not feel ownership over program and hence are not committed, causing widespread failures (hardware museums) once the novelty of ICTs wears off. Research on these programs concludes that crores have been spent, but with little real or lasting educational outcomes.

Second generation ICT programs in school system – based on 'pedagogical perspectives'

Curriculum pertains to regular school subjects and issues of education

Mathematics, Science, Social Science, Languages

Curriculum in the ICT program is transacted by regular teachers

Teachers use three kinds of *digital methods to create* learning resources

using *educational software applications* like Geogebra or Freemind

web tools like wiki

digital tools like video camera

Use of a large variety of *free digital tools/resources* helps move from a 'scarce (minimalist) proprietary digital environment' to a 'rich/diverse public digital environment'. *Digital resources are non-rivalrous (sharing does not reduce availability) and hence promoting public creation/sharing of digital resources most important*

Teachers use digital networks to learn from one another and support one another

High level of ownership and commitment of teachers and institutions leading to breadth and depth of use of ICTs by teachers in teaching-learning with beneficial impact on educational processes and outcomes

ICTs no longer seen as an isolated 'subject' but as an integral curricular resource, creating a new discipline 'techno-pedagogy'

Focus on continuous *capability building* - essential since the world of ICTs is fast changing.

A.6 Proprietary Software and Proprietary Content vs Public Software and Content

Since the adoption of ICTs in education is essentially an educational issue, rather than a technological one, PSTE policy and program need to be anchored in sound educational perspectives. Curriculum is the primary process of directing teaching towards fulfilling educational aims and digital learning resources (content) and digital learning tools/ processes (software applications) which constitute curricular resources, need to comply with curricular

principles. An important principle of education is that curricular resources need to be publicly owned, so that they are freely available to teacher educators, teachers and students without restrictions. In the case of traditional print media (books), the public education system does not use proprietary curricular resources, since that prevents the schools, teachers and students from freely sharing the resources and from customizing and using them as per their local needs. Proprietary software and content forces the teacher to be a 'mere user'; treating these tools as a 'given'. Teachers, schools and the entire public education system become completely dependent on the vendor for any changes, modifications, enhancements / customizations to these tools and have no right to freely share these resources with one another. Thus allowing for use of privatized digital learning processes (in the form of proprietary software or content) would be detrimental to education and the public education system should use only publicly owned curricular resources.

There are free software applications for all the areas where proprietary software applications have been used in schools. At a systemic level, public software has been used in a successful "ICT@schools" program in India – the Kerala [IT@Schools](#), which is being emulated in Gujarat. The 'Subject Teacher Forum' program of RMSA, Karnataka uses public educational software for mathematics, science and social science teachers. Proprietary software and content forces the teacher and the student to be a 'mere user'; treating these resources as a 'given'. Teachers, schools and the entire public education system become completely dependent on the vendor for any modifications, enhancements, customizations or localizations (creating local language versions) to these tools, and have no right to modify or freely share these resources with one another. Proprietary resources thus do not allow the needed experimentation, collaborative construction, and local/ contextual enhancement of learning processes, important new opportunities offered by digital technologies, required to meet the constructivist ideals aspired for by numerous policy documents including the National Curriculum Framework 2005. Thus using privatized **digital learning processes (in the form of proprietary software or content) is detrimental to educational aims**, and there is a strong case for the education system to use only public software (popularly known as free and open source software) and public digital curricular resources.

In addition, use of publicly owned software has other important advantages:

Since publicly owned software can be freely shared, the costs of using freely shareable software applications would be much lower specially for implementing at a large scale, where support systems are feasible to build. An IIM-Bangalore study estimate that on a conservative basis, Kerala [IT@Schools](#) program has saved 50 crores on software license fees and India would save 20,000 crores each year by adopting the same.

The GNU/Linux publicly owned operating system is virus-resistant and this can hugely reduce maintenance and support efforts and resources. A large number of computers in educational institutions tend to be unused due to virus issues and using GNU/Linux would increase infrastructure availability.

A large number of educational software applications can be bundled with the GNU/Linux operating system which means they can be available to teachers and schools in a simple single installation process. The Kerala, Karnataka and Gujarat programs all use the Ubuntu GNU/Linux operating system which is simple and easy to use, bundled with the educational tools.

Thus education system should encourage the use of digital tools and resources that are freely shareable and modifiable, in line with other curricular resources and discourages the use of software or content which is privately owned and which teachers and education system is legally and technologically prevented from sharing/customizing

A.7 Public Software - Education Tools

Application Area	Public Software	Description
SCIENCE	Kalzium	This shows the periodic table and the properties of elements. It acts as an encyclopedia, explaining states of matter, evolution of elements. Basic equations can be balanced using this tool.
	KStars	Desktop planetarium-Astronomy with over 130000 stars, all planets, etc.

	Stellarium	This is a desktop planetarium software that shows exactly what you see when you look up at the stars.
	PhET	Fun, interactive simulations of physical phenomenon
	KTechLab	This tool can be used to build your own circuits and explain its various components
MATHS	Geogebra	An algebra and geometry package providing for both graphical and algebraic input
	Tux Math	A fun game through which children can practice their addition, subtraction, multiplication and division.
	KBruch	This tool can be used to explain fractions as well as for the children to practice arithmetic problems.
LOGIC	KTurtle	The turtle will follow whatever directions you give it. Can be used to draw various symmetrical figures and is a good exercise of logic.
SOCIAL STUDIES	KGeography	Quiz on different states and capitals across the globe
	Marble	This acts as a desktop atlas.
ENGLISH	KHangman	Guess the correct word with a certain number of guesses allowed
	KAnagram	Unscramble the word
	KLettres	Identify the alphabets by recognizing the sound
	Tux Typing	Tux Typing" is an educational typing tutor for children.

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