Karnataka Elementary Teacher Education Curriculum 2012

Teacher Educators' Handbook

First Year D.Ed

Directorate of State Education, Research and Training
Bengaluru
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Contents

Preface

This Handbook intends to facilitate the teacher educators working in Karnataka to understand and transact the Karnataka Elementary Teacher Education Curriculum (2012). The perspective of the renewed curriculum is different from the earlier curriculum. It focuses on the first year D.Ed programme only. For the second year D.Ed programme, a separate Handbook would be prepared and supplied to teacher educators subsequently.

The teacher education programme itself is in a transition phase where the changing contexts and paradigms necessitate a reorientation. The influencing factors for the changes include the National Curriculum Framework (2005), the National Curriculum Framework for Teacher Education (2009) and the RtE act (2009). The basic intent of all of the above are incorporated into the new curriculum and has been suitably contextualized to the Karnataka context. This indeed requires an orientation to teacher educators. Hence, the present Handbook.

There are certain significant departures from the earlier curriculum. They include the introduction of Class Talks, the reconceptualisation of micro-teaching skills, practice in teaching and internship, apart from the decentralised structure and functions of the coordination boards. Issues related to the implementation of the Continuous and Comprehensive Evaluation (CCE) is yet another important concern. Inclusive education and teacher development studies as permeating areas are the other hallmarks of the present curriculum. These are spelt out in the curriculum document as well and as in the Handbook. It is hoped that the basic intent of these the departures are understood, appreciated and articulated by teacher educators in their transaction.

There has been an attempt to focus on every course in terms of suggesting the teaching strategies as well as assessment strategists. These suggestive guidelines are expected to inform and influence teacher educators in understanding and transacting the curriculum effectively. That does not mean that there is no space for innovations, experimentation and tryouts by teacher educators. On the contrary, it is intended that the teacher educators must explore different ways of transacting the revised curriculum to make it much more vibrant and relevant to the student teachers. In order to know how the present Handbook and the KETEC 2012 are understood and implemented by teacher educators, an attempt is made to provide perforated pages at the end of the document. This is meant for all teacher educators to write their feedback at the end of transacting each unit in every course. This would enable DSERT in understanding the field realities of implementing the curriculum. The feedback is also likely to inform and influence the curriculum renewal process at a later stage.

Teacher educators, with the requisite expertise and who are familiar with the D.Ed programme in Karnataka have contributed for this handbook. The editorial board is thankful to all the contributors. All the support extended by people in different capacities is sincerely acknowledged. We hope and wish that the KETEC 2012 is transacted effectively and professionally by all teacher educators. If this handbook proves useful for this process, our effort in its preparation shall be meaningful. Suggestions for its improvement are most welcome.

Editorial Committee

1: Introduction to Teacher Educators' Handbook

The present handbook provides pointers to you (the Elementary Teacher Educator of Karnataka), for implementing the revised Karnataka D.Ed curriculum (2012). The pointers are meant to be suggestive only. Enough opportunities are there in every component of the curriculum, for you to be innovative and experiment.

The shift in perspectives in the revised curriculum has been spelt out in all courses. This is to help you understand the changed perspectives better and is expected to set the tone for meeting the aspirations of the revised curriculum. For the benefit of all of you, there is an attempt to explain the different 'terms used' in the curriculum. This is meant to ensure clarity.

In every course a unit wise tabular presentation of how the course can be transacted is suggested. It includes the name of the unit, major objectives of the unit, suggested activities along with suggested assessment techniques. Thus, it attempts to provide a cohesive transaction strategy, unit wise. On similar lines, guidelines for conducting and assessing each practical are also provided. This is expected to facilitate each one of you to smoothly navigate the revised curriculum without many difficulties. This is also expected to ensure a certain level of transaction standard.

The transaction standards are set at such level, to ensure achievement of goals and objectives of D.Ed. Programme and consequently the goals and objectives of school education also. NCF (2005) for School Education and NCF for Teacher Education (2009) emphasise a constructivist learning paradigm. With this backdrop, the revised D.Ed. Curriculum 2012 also articulates the significance of constructivist learning environments and advocates a commensurate shift in the teaching learning process. This handbook attempts to provide inputs for understanding and translating this intent into practice.

A novel approach to integration is visualized in the revised D.Ed curriculum. Perhaps for the first time, there is an attempt to introduce CLASS TALKS as an authentic supplement to the curriculum implementation. Technically speaking, class talk is delivered by a professional to a set of students in a class on a certain topic which is of common interest to the students at large. This is one of the group guidance activities. In the D.Ed context, it is contextually defined as a short talk/a panel discussion/group discussion delivered by some person(s) of eminence who has/have contributed significantly to an area/concept/ process. Since these are to be available to all student teachers under the supervision of the teacher educators, DSERT has decided to prepare digitized talks (on CDs/DVDs) so that it can be made available to all the D.Ed colleges.

In the revised Karnataka D.Ed curriculum, a number of such class talks have been identified in different courses. A mention has been made in the respective courses where needed. As creative and imaginative professionals, it is expected that you would be able to meaningfully integrate these class talks in the respective sections during transaction. This is expected to help you in making learning more effective and meaningful. The contents of the class talks are such that your student teachers must know them as a part of their pre service programme, but they need not memorise them since these contents are not meant for examination. This does not in any way diminish their importance. You will agree that your student teachers would be very happy to watch and participate in activities, based on the class talks.

Additionally, to that extent, the content load is reduced, and conceptual and procedural understandings are expected to improve. The other important objective served by the class talks is that your student teachers will be exposed to authentic learning sources. Providing authentic learning opportunity in a teaching-learning context is an important requirement of a constructivist philosophy. So class talks can play a very important role in the transaction of the revised D.Ed curriculum.

The entire handbook is planned to facilitate transaction of the revised D.Ed curriculum meaningfully and dynamically. Intrinsically, the revised curriculum is expected to prepare elementary teachers who believe in the learning potentials of ALL children and help actualise their talents and potentialities.

Pointers for using the handbook:

- Read the handbook along with the syllabus, before commencing the course.
- The suggested strategies and activities are not to be mistaken as prescriptive.
- Use the handbook as a reference for designing your classroom transactions.
- All suggested inputs in the handbook are meant to inspire you to achieve intended objectives. You may build on/modify/invent/innovate your own more appropriate strategies to meet the objectives of the unit.
- Contexualise strategies, interventions and activities to suit the needs and requirements of your student teachers.
- Document all strategies you tried out other than those mentioned in the handbook. You will find two blank sheets at the end of each course for this purpose. This will enrich your own initiatives and support your innovative ideas and practices. Ideally, such a process must saturate curriculum renewal process at the macro level and strengthen micro level planning and management.
- Maintain a record of what worked and what did not when trying out the strategies suggested/adopted/modified in the handbook.

2: First Year Courses

In the first year, there is a conscious effort to introduce basic concepts of Education covering the foundations of Education. This is a full course which every student teacher needs to understand. Therefore, this is to be transacted as a full-length course throughout the year.

In the present curriculum content cum methodology is visualized under the heading 'facilitating learning' which covers Kannada, mathematics and EVS at the lower primary level. All the three courses are full papers for 100 marks and all the student teachers need training in all these three common courses. This is essential at primary level as all teachers are expected to teach all the three subjects in school. Therefore they have been identified at the primary level in the first year.

Realising the importance of making elementary school teachers in Karnataka proficient in communicating in English, the curriculum provides adequate opportunities for developing communication skills in English among the student teachers in the first year. To meet this requirement, adequate time has been provided as much as it is provided for other full courses. While, from the viewpoint of the examination it is for 50 marks. This justifies the need for year-long inputs and cutting the examination burden to half.

As regards the 'educational assessment and evaluation', there is a course in the first year for 50 marks. The student teachers will undergo training in the CCE perspective which is the demand of the day in Karnataka. All other courses are also planned in such a way that in every course there is a scope for assessment and evaluation. Therefore along with discussions of general theoretical issues related to assessment and evaluation, more than half of the time for this course is allocated for

developing hands-on experience in developing assessment tools and making meaning out of them. Since, in every content area there is an element of assessment and evaluation, an allocation of 50 marks for this course is justified and desirable.

A comprehensive understanding of health and physical education leading to improved physical, social, mental and emotional fitness are vital to the holistic development of every child. Keeping this rationale in view, there is a course on physical education in both years, with a slight change in the emphasis. In the first year games and movement education is the focus, which is appropriate for the primary level, while physical education as a subject is taught at the higher primary level. This paper is also for 50 marks in both the years and there is no external examination for this paper. This is to be taught and assessed by the teacher educator himself/herself at the institute level. Since this is the process based, activity-based paper, the evaluator is desirably to be the teacher educator who teaches only. Therefore, there is no external examination for this paper. It is expected that the concerned teacher educator at the teacher education level must be proficient enough to train them in making them relevant for the elementary years by being objective and fair. Therefore, the task of the teacher educator would be to train the student teachers to effectively use games and physical education as teachers, though they are not basically physical education specialists. Thus this becomes slightly a more responsible activity for the teacher educator.

Keeping in view the professional preparation requirements of student teachers, the present curriculum introduces a set of courses called 'Teacher Development Studies' (TDS). These courses include a variety in both the first year as well as in the second year which should be taken up seriously by the student teachers as these would help make them versatile and proficient professionals. In the first year programme, student teachers will have two courses namely 'Arts in Education' and 'Reflective Practices'. Both the courses are for 25 marks each. There is no external examination for both of them. In both courses there is less of theory and more of practice.

Essentially 'Arts in Education' attempts to make student teachers sensitive to the needs of identifying and using different art forms in making teaching-learning enjoyable and productive. As regards the course on

'Reflective Practices', it enables student teachers to understand the need and importance of reflective practices and facilitates them to plan for a reflective career. This is bound to enhance personal efficiency and professional effectiveness of teachers. Training them on this is thus justified.

Further, inclusive education has been introduced from the perspective of diverse learners to provide an approach and path for meeting the educational needs of ALL learners. Besides it also permeates through the programme.

The courses along with allotted marks and instructional time are as follows.

S.No		Courses	Internal Marks	External Marks	**Total**	Instructional Time (Hrs)		
						Theory	Practical	**Total**
1.1		Education: Introduction to Basic Concepts	40	60	**100**	85	50	**135**
1.2		Facilitating Learning (LPS):						
1.2.1		Kannada	40	60	**100**	45	75	**120**
1.2.2		Mathematics	40	60	**100**	65	55	**120**
1.2.3		EVS	40	60	**100**	60	60	120
1.3		Communication Skills in English	20	30	**50**	50	70	120
1.4		Educational Assessment & Evaluation	20	30	50	25	35	60
1.5		Teacher Development Studies:						
1.5.1		Arts in Education	25	---	25	10	30	40
1.5.2		Reflective Practices	25	---	25	14	26	40
1.6		Physical Education & Games	50	---	50	5	55	60
1.7		Practice in Teaching & Internship						
1.7.1		Practice Teaching	90	60	**150**	-	225	225
1.7.2		Internship	50	---	**50**	---	216	**216**
		Library Work	---	---		---	54	54
		Cultural Activities	---	---		---	40	40
		Total		360	**800**			**1350**

3: Suggested Teaching and Training Strategies

Teaching Strategies: Different courses require different teaching strategies. In every course they are introduced and explained. It may be possible that one teaching strategy discussed in one course may also be useful in transacting the other course. Therefore, a teacher educator need to not only understand the suggested course specific strategies, but also see whether these teaching strategies could be meaningfully used elsewhere also. Our effort has been to suggestively provide different strategies articulated in different courses. Therefore, as an intelligent teacher educator, we expect you to benefit from the explanation and use it in other contexts also wherever it is applicable.

For more details, kindly see under different courses.

Training strategies:

Rationale

Practice in teaching as well as internship should be based on a partnership model. Such a model would involve a 2-way learning relationship between a teacher education institution and its practicing schools. Teacher education institutions and schools must learn from each other. Schools should be places where analyses and reflections on teaching are made possible for both student teachers and teacher educators, while institutions should be able to provide schools with innovative ideas, teaching learning resources and theoretical bases for teachers' practice and department's programmes.

Indeed, the crux of a teacher education programme is the exposure provided to the student teachers to classroom teaching. Practice teaching and internship are meant for providing first hand experiences to the student teachers in classroom teaching and whole school life in general. The modalities suggested are as follows.

3.1 Practice in Teaching

Total no. of days: 38 days **Total marks: 90**

Distribution of days and marks

Sl.no	Details	No of days	No of lessons	Facilitating Learning			Total Marks	Remarks*	
				Course 1	Course 2	Course 3			
	Pre-Practice in Teaching Activities								
1.	**Observation of classroom processes**	**1**						Student teachers to spend a day in a school observing classrooms and children to get a general exposure. First Year –LPS	
2.	**Communication skills**	**3**		**-**	**-**	-	**-**	This has to be done in workshop mode, focussing on enhancing communication skills of student teachers. Teacher educators to give demo lessons in each subject focussing on communication skills. Discussions to follow.	
3.	**Teaching skills and Strategies**	**10**		**-**	**-**	**-**	**-**	In the first year, skills that would support Nali Kali, along with 5 teaching skills essential for classes 4 &5 to be taken up.	
4.	**Planning and preparation**	**3**		**-**	**-**	**-**	**-**	This is a planning and preparation for simulated teaching phase.	
5.	**Simulated teaching**	**3**	**1*3=3**	**10**	**10**	**10**	**30**	This is meant to provide student teachers more confidence for actual classroom teaching	
		20							

	School based experiences							
6.	**Observation of school management & classroom processes**	**1**		**-**				Student teachers to be oriented for specific observation, based on their pre-practice teaching experience.
7.	**Lesson plans, Lesson Observations, Supervised lessons & Feedback**	**15**	**5*3=15**	**25+25**	**25+25**	**25+25**	**150**	This has to be done in 3 weeks, from Monday to Friday. Every week, facilitating learning of all 3 subjects are taken up. However, a student teacher is to be allotted only one subject per week, i.e. one-third of student teachers are to be allotted one subject for the entire week. They teach one period per day.
8.	**Reflections of practice in teaching experience at the Institution**	**2**		**30**	**30**	**30**	**90**	Student teachers come back to institution on Saturdays, at the end of each week for collective reflections. This can be organised in the form of group discussions. Each group to be facilitated by one teacher educator. Every group to have student teachers from different schools.
		18		**90 To be reduced to 30**	**90 To be reduced to 30**	**90 To be reduced to 30**	**270 To be reduced to 90**	

* The remarks are elaborated below:

Pre-practice in teaching activities - This is basically meant for preparing students for practice teaching.

1. For an entire day, student teachers should observe classroom processes in an unstructured way. This is expected to give them a feel of the school environment that they are going to work in. First year student teachers observe classes 1 to 5, while second year student teachers observe classes 6 to 8. It is desirable that student teachers are encouraged to visit these schools even in their free time.

2. Three days are earmarked for developing communication skills among the student teachers. Apart from discussions on various communication skills, the teacher educators will also present demonstration lessons focusing on communication aspects. The unique communication needs for each subject should be kept in mind while transacting these sessions. For example, Mathematics would have a special focus on logical reasoning; Science would focus on logicality of processes, Social Science on an inclusive language, and Languages on appropriate use of vocabulary and structures.

3. Microteaching skills/ teaching skills and strategies have been prescribed for both the years for 10 days.

In the first year, the following skills need to be developed:

	Nali Kali Supporting skills		Micro Teaching skills
1	Handling learning in groups	1	Introduction
2	Planning different group activities	2	Stimulus variation
3	Monitoring different groups	3	Illustrating with examples
4	Multi grade skills	4	Questioning
		5	Closure

4. Three days allocated for planning and preparation. The primary focus is on flexible lesson planning and preparation of resources. Teacher educators have to handhold them in this task, and not focus only on mechanical corrections of lesson plans.

5. Three days of simulated teaching takes place right in the teacher education institution. Student teachers teach their own peers. This is expected to make the transition to the school atmosphere smooth and less traumatic. The experience of a full pledged class is expected to boost the morale of the student teachers and develop confidence in them to take on the challenges of classroom teaching.

School based Experience - This is where the student teachers get hands on experience in classroom teaching and in organising other school related activities.

1. The day long observation of classroom processes and school management is a structured activity here. Student teachers look for specific features and try to understand the school processes. Teacher educators spell out tasks for the student teachers during these observations.
2. Supervised lessons and observations are meant for providing teaching experience. In the first year, facilitating learning of Kannada, Mathematics and EVS for classes 1 to 5 is taken up.
3. Three weeks are assigned for school based practice teaching. In both the years, for each week, the respective languages/subjects should be distributed among the student teachers so that one student teacher teaches one language or subject for the entire week. In 3 weeks they complete the cycle of all three, i.e. 1 language and 2 subjects in the case of first year. Therefore, each week, every student teacher takes up 5 periods in one language or subject.

This is to give them a sustained exposure to the pedagogy of teaching a particular language or subject. Also it would be easier for teacher educators to give concentrated inputs and feedback to a small group of student teachers at a time.

4. A student teacher is to be allotted one teaching period per day. The remaining time is meant for planning, preparation, observing peers' lessons and feedback.
5. Both the teacher educator and the mentor teacher from the school observe student teachers' classes and provide feedback.
6. Student teachers would be in school from Monday to Friday. Every Saturday they return to their institution to share their experiences. Group discussions are mediated by teacher educators. Each group will have student teachers from different schools. This is expected to give an opportunity to understand variety of experiences.

3.2 Internship

No. of days: 36 **Marks allocated: 50**

(a) Pre-Internship Activities – This is meant to prepare the ground for making internship more meaningful and strengthen relation with practicing schools.

Duration: 2 days

Provide an orientation to student teachers on the following, taking the help of School Teachers and/or HMs:

- Preparing unit plans and lesson plans
- Identification of lessons and different resources available in school
- Construction of achievement and diagnostic test
- Maintaining peer group observation records
- Writing reflective journals
- Maintaining PE records
- Preparing reports on school activities

Pre-internship conference with co-operating schools to be organised by institutions.

Pre-internship conference for institutions to be organised by DIETs.

These conferences are meant to inform and influence cooperative schools about how student teachers are prepared for teaching and also negotiate with them the expectations from the cooperating schools.

(b) Internship – This phase is meant to provide student teachers with a holistic experience of school and role of teacher. **Duration: 33 days**

It consists of following major activities:

1. Familiarising with the roles and responsibilities of teachers.
2. Teaching **(for 30 days)**

For Year 1: LPS

S.No	Details	Units (for classes 4 & 5)	Periods		
			(Clases 4 & 5)	Nali Kali (Co-teaching with regular teacher)	Total
1.	Facilitating learning of Kannada	2	12	4 sessions (8 periods)	20
2.	Facilitating learning of Mathematics	2	12	4 sessions (8 periods)	20
3.	Facilitating learning of EVS	2	12	4 sessions (8 periods)	20
				TOTAL	60

- Lessons to integrate ICT, Arts in Education, Education for Peace and Inclusive Principles. This needs to be facilitated by mentor teacher and teacher educator. Observation schedules should include these components.
- Teacher educators to use 'quality monitoring tool' to assess every student teacher and share the same with student teachers to both give them feedback and let them know their progress.
- Assessments done by the teacher educator and the mentor teacher are clubbed to a total of 50 marks for each of the three pedagogic courses offered.

- Records to be submitted for assessment:

    ⇒ Unit plans
    ⇒ Peer observation records
    ⇒ One report each of other 4 activities undertaken
    ⇒ Reflective Journal

3. SDMC Meetings – Interns to do non-participant observation of SDMC meetings; Study school development plan & academic plan.

4. School sponsored activities **–** Help with celebrations; Involve with regular school activities like mid-day meal, school assembly; Initiate activities like arranging guest talks, resource creation, teacher development groups; Create wall magazines; Encouraging children to develop radio programmes; Take up theatre activities, school gardening and such.

5. Community related activities **–** Visiting homes of a few children; interacting with members of community to understand their needs; **Communicating** to community members about school practices/processes; Participating in community activities; Planning & utilising community resources for school.

(c) Post Internship Activities – This is meant to consolidate learnings from internship and help plan for the following year better. Such conferences would also go a long way in ensuring synergy between teacher education institutions and practicing schools.

Duration: 1 day

1. Post internship conference with schools organised by D.Ed institutions
2. Post internship conference with institutions organised by DIET

The purpose of post internship conference is to reflect upon what went right and what went wrong. This should be done by the Teacher Education Institutions along with the student teachers.

A separate post internship conference for the first year and second year student teachers is desirable as their purposes are different.

Primarily, the first year post internship conference will aim both at reflecting and identifying needs for the next year. In either case the insights gained by the institute must be noted and suitable corrective measures need to be noted for systemic change.

From this view point it has to be organised professionally and corrections must be attempted seriously. The guidelines suggested for practice teaching and internship are tabulated below:

Process guidelines for practice teaching and internship

Stage	Activities	Person responsible	Expected outcomes
Pre Practice in Teaching/Internship	1. Meeting of DIET faculty with – BEOs, Principals of teacher education institution, at DIET 2. Administrative meeting of Teacher education institution Principal and HMs, at Teacher education institution 3. Academic meeting of teachers and teacher educators, at schools 4. Discussion meeting of teacher educators and small groups of student teachers, at Teacher education institution	DIET PSTE Head Principal of teacher education institution Teacher Educator Teacher Educator	• BEOs to ensure student teachers of only one institution go to one school • BEO to include the school name in the permission letter • BEO to direct Mentor teachers to give written feedback to student teachers • An overall plan is evolved • HMs gain clarity on roles and responsibilities • Allocation of classes, subjects and topics • Flexible lesson plan/ observation schedule is evolved • Student teachers get pointers to link theory to practice • Student teachers gain space to innovate • Focussed observation and feedback
During Practice in teaching/ Internship	1. Pre lesson discussion 2. Mentor Teacher and Teacher Educator observation 3. Post Lesson discussion 4. Reflection by all	Student Teachers Mentor Teachers Teacher Educator Mentor teachers	• Feedback • Suggestions • Students teachers reflect on their practice • Link to theory • Sharing of experiences and cross-learning
Post Internship	6.1 Conference with schools 6.2 Conference with institutions	Principal of teacher education institution PSTE Head of DIET	• Taking stock of Internship • Plugging loopholes 6.3 Ensuring continued contact with schools

Role of concerned stake holders

Teacher Education Institutions (Principal and Teacher Educators)

Principal

- Planning at the beginning of academic year as a team along with teacher educators
- Meeting HMs & Concerned CRP before practice teaching/internship
- Visiting school periodically during Practice teaching and Internship
- Inviting HMs/CRPs to address teacher educators and student teachers to Government programmes
- Inviting HMs/teachers to give model lessons to both teacher educators and student teachers

Teacher Educators

- Investing time on building professional rapport with teachers
- Orienting student Teachers on school ethos and self regulation
- Visiting school during Practice teaching and Internship
- Discussing with all teachers along with student teachers during feedback sessions
- Interacting with CRP/BRP once during Practice teaching and Internship
- Trying to align academic plan with school calendar along with teachers at the beginning of the year
- Keeping abreast of current teaching methodologies in school.
- Holding weekly reflective meetings with student teachers, during Practice teaching and Internship
- Providing time within institution for reading & preparation to student teachers

Systemic level (DIET, B.E.O, BRP-CRP)

DIET

- As part of school visit to visit practising schools (Faculty of all wings)
- Meeting & orientation for D.Ed institution Principals, before practice teaching every year
- Writing letter to BEO on school allocation
- Writing letters to ECO / BRP /CRP for follow –up
- Nodal officers along with PSTE staff to orient BRP/CRP on monitoring student teachers during PT/Internship

BEO

- Letter to HMs
- Order to ECO to observe schools

BRC

- Providing subject related help (subject expertise)
- Reflective meeting with DIET faculty, school HM, student teachers & teacher educators (once a year during PT)

BRP/CRP

- Follow up on student teachers' lessons
- Guiding student teachers where needed

School (Head Master &Teachers)

HM

- Holding prior meeting with teachers
- Time table to be given to student teachers, before coming to PT/Internship
- Planning allocation of classes to student teachers meaningfully with teachers
- Maintaining attendance of student teachers (during internship)
- Overall observation & follow-up daily
- Handholding for student teachers

Mentor Teachers

- Observing relevant subjects
- One student teacher to be made in- charge in each school to co-ordinate over all activities
- Planning activities with student teachers & teacher educators
- Building rapport with student teachers

Role and expectations of Coordination Board

Dos	Donts
1. Understand, reflect and facilitate quality of transaction	1. Do not spend time in formalities
2. Focus on monitoring academic dynamics and institutional ethos	2. Do not create an environment of fear or anxiety or threat among student teachers or teacher educators
3. Focus on process based assessment not just the product	3. Do not consider the visit as meant for product evaluation
4. Make efforts to have separate discussions with student teachers and provide motivating professional development perspectives	4. Do not receive personal incentives of any form
5. Treat basic intent of teaching and learning as substantive issues and address them in your discussions	5. Do not treat the visit as a policing activity
6. Engage in academic discussions with teacher educators in clarifying their professional queries	6. Do not focus on finding faults
7. The coordination board is meant only for developmental and professional purposes	
8. Make yourself available to the institution as and when they need you □at least over telephone	
9. Appreciate the uniqueness of every institution, their dynamics and institutional culture	

Expectations of D.Ed institutions from the Coordination Board

Dos	Donts
1. Treat the coordination board as a friend, philosopher and guide	1. Do not treat the visit as a policing activity
2. Prepare agenda for academic discussions with the board. Keep your queries and issues for clarification ready before the coordination board's visits	2. Do not present things that are not authentic
3. Ensure a professional networking with the members of the board for an ongoing professional support and networking	3. Do not make a show of the presentation activity
4. Present documentation of different activities for the board's feedback. Keep the presentation realistic and natural as they have been used	4. Do not create an artificial environment on the day of the visit
5. Have an open mind in accepting suggestions for academic improvement	
6. Swing the board's visit to your advantage academically	

4: Suggested Assessment Strategies

Introduction: In the revised curriculum, there is ample of scope for using a wide variety of assessment strategies. This module is intended to elaborate and explain many of them to provide more clarity and conviction.

In the revised D.Ed curriculum (2012), following changes are suggested in the evaluation of student teachers in the D.Ed. course. You may like to note the following with regard to the **year end examinations, tests & assignments:**

1. There is reduction in the weightage of theory and practical from 68:32 to 50:50. Under theory component, 60% for Term end / Annual Exam and 40% for continuous assessment (Theory and Practical). In theory examinations it is suggested to have Objective type questions and essay type questions in the ratio of 50:50.
2. Instead of 4 written tests you had in the past, now you will have two formal summative tests on the lines of the Annual Examinations, by following the testing cycle (Refer P-24).
3. To assess higher mental abilities as well as assimilation of content learnt, ability to analyse and reflect upon and present ideas, and thoughts systematically and meaningfully, "open book examinations" could be conducted.
4. In the new curriculum (2012), emphasis is on assessment of both process of preparing assignments as well as on products.

Some general assessment strategies are discussed in the following section.

4.1 General assessment strategies:

There are general assessment strategies which you need to be familiar with.

(i) Product & Process Assessment: Product assessment is the output assessment of learning. This may include, most commonly known results of a test or examination or it may also cover objects created, materials produced, project reports, journals maintained, assignments submitted and tools developed, essays/poems/stories written. In most cases the product is the focus of attention and it is easier to evaluate a product. For example, a teacher is usually more interested in the Assignment or project report or Instructional model submitted. Here, it is assumed that if the product is good then the process followed will also have to be good. This assumption has proved to be untrue. Many products prepared might be just mechanical replications and duplications without really understanding or developing desirable insights. Therefore, such product assessments are unimportant for us in Education.

Process assessment is another form of assessment which is currently being emphasized. Assessment of processes refers to assessing the learners as they learn. It includes understanding the learning speed and learning styles of learners. Process assessment is the basic responsibility of a teacher as the learner is to be enabled to understand contents and skills at his/her best as this is the heart of individualization of instruction. Processes can be recorded and assessed with the help of tools such as - check lists, rating scales, and observation schedules. You will know them more in the later sections. You can consult the annexure too.

(ii) Performance Assessment: In performance assessment learners do or perform something such as experiments, athletics, sports, music, drama, dance and such. It is easy to see how performances can best demonstrate a student's skills & abilities. Performance assessment can be achieved through Oral presentation, Dance, Science activity, Athletic skills, Dramatics, role play, debate, singing, practical test, interview etc.

*(iii) Formative & Summative Assessment***:** Formative evaluation refers to the evaluation of learning of learners as the lesson is developing in the formative stages. Every teacher engages learners in learning episodes/ teaching-learning contexts with due preparation and by keeping certain objectives by design. Therefore, a teacher naturally wishes to know to what extent s/he has been effective and relevant to learners. As a process of understanding whether learners are able to benefit, s/he asks several questions and tries to assess their understanding or her/his effectiveness with learners. This process is what is called formative assessment. It gives teachers immediate feedback about the effectiveness of their transaction. If students are not learning as expected, teacher must decide to alter the instruction procedures and become relevant to all learners. Teacher uses questioning mainly for this. It enables a teacher to identify the understanding and has the potential for improving the learning.

In contrast, summative assessment has the purposes of grading or promoting to next class or changes in placement at the end of performance of learner. Summative evaluation is used in the form of tests after instruction is completed. You are also familiar that the RTO inspector who judges an aspiring driver whether s/he is fit to be issued a driving license or a student is awarded A-grade in the examination when as/he is judged worthy of promotion to the next higher class.

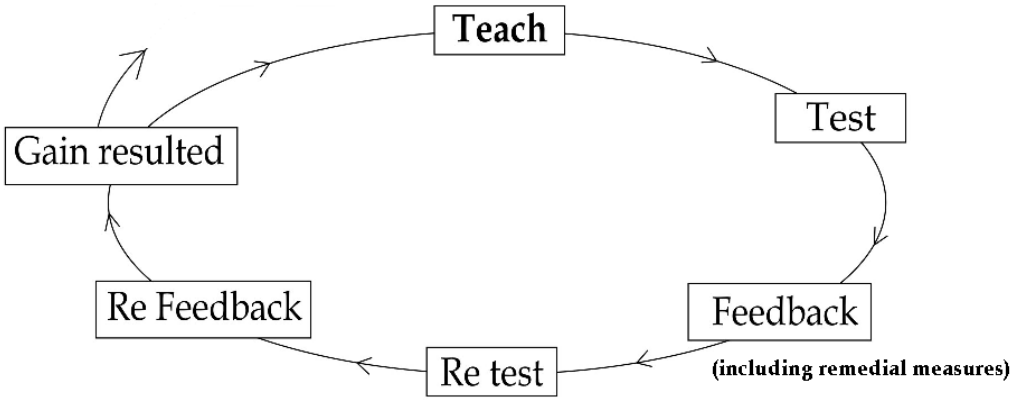
Here is a useful analogy to remember the purpose of formative and summative assessments - *When a cook tastes the soup, it is 'formative evaluation' (because s/he will bring mid course correction if need be) and when the guests taste the soup and comment, it is summative evaluation.*

Shift in Assessment Perspectives in the revised curriculum

In the new curriculum, there is a shift in the emphasis which every teacher educator needs to know. From this view point, the following professional activities need to be understood.

(i) Tests: Although there were 4 Written Tests prescribed in the previous D.Ed. curriculum, it was not continuous evaluation in a true sense. Existing evaluation practices with respect to theory are more memory-based. The basic purpose of conducting several tests as a part of continuous evaluation is undermined, as the feedback and remedial measures are neglected. The following strategy may be adopted to bring continuity in assessment through tests.

Teaching and Testing Process



Instead of 4 written tests it is suggested to have only two formal tests of two hours in each year. The test pattern is to be on the lines of term end examinations. After the completion of each unit, self assessment is to be obtained from student teachers and supported with due feedback from teacher educator as a part of continuous evaluation. Added to this, in the conduct of tests, measures such as preparing the scheme of assessment along with question paper, providing the scheme and answer scripts after assessment to the student teachers are to be adopted to bring transparency in the process.

It is suggested to have a preliminary examination at the end of the academic year, which may be tried out as open book examination as to assess higher mental abilities, assimilation of content learnt and the ability to organize and present his/ her ideas systematically and meaningfully. This may provide opportunity for creative expressions.

(ii) Practical: The emphasis is on both on quality of participation in the practical as well as on the output of the practical in the form of product or report.

Specific assessment strategies for each practical are given in the respective courses.

Self assessment is also to be obtained from every student teacher.

A proficiency index (PREP INDEX) may be developed for practical taking both teacher educator's assessment and student teachers' self assessment so as to bring more transparency and objectivity in the assessment/grading of practical.

(iii) Internal Assessment: The following need to be understood by teacher educators in order to make internal assessment an intrinsically important component of assessment.

- Keeping in view the limitations as well as advantages of both internal and external assessment, a judicious combination of both in equal percentage is what is suggested in the new curriculum.

- To ensure objective moderation of internal assessment as well as to facilitate ongoing support, the coordination Boards are reconceptualised. In the earlier scheme, coordination board used to visit the institution at the end of the academic year to verify and moderate internal assessment. In the present scheme (2012), its role is shifted from 'summative' to 'supportive'. It has to visit the institution periodically once at the beginning, once in the middle, and once at the end of the academic year to support activities. This would bring positive desirable changes in the conduct of teacher education programme. With its development oriented constructive criticism and insightful inputs, the board has to contribute for the improvement of the quality of the training imparted.
- To bring transparency in internal assessment, the assignments, projects, materials prepared by students should be returned after evaluation along with observations and feed back of the evaluator. In addition to the product/output evaluation, the process of production/project/ assignment is also to be given due weightage.
- Self assessment to be supplemented wherever necessary.

(iv) Practicum: As envisaged in NCFTE 2009 (*pg 29 onwards*), the aim of teacher preparation programme, is to provide hands on experience to student teachers with children of diverse ages and contexts. Student teachers have to obtain hands on experience of designing assessment methods to assess children's capacities to think and solve problems thereby broadening the scope of assessment in co scholastic areas beyond achievement testing so as to cover child's overall development.

(v) Practice in Teaching: Practice in teaching constitutes the most functional part of the teacher preparation programme which has suffered severe neglect and dilution in quality. In addition to teacher educators' assessment, self assessment of student teacher as well as peer group assessment, followed by reflections are also to be considered for overall grading.

In this process, the descriptive evaluation may also be quantified through a performance index referred as PREP INDEX. The process of quantitative evaluation of the individual lessons for the calculation of PREP INDEX of each lesson is given in the Annexure.

The faculty member observing the lesson, besides giving his/her descriptive qualitative observations, would also be required to make a quantitative assessment on a five-point scale by putting dots in the appropriate place corresponding to the quality of attainment of each of the indicated criteria viz. (a) Class management and pupil cooperation: (b) Teacher's expression; (c) Subject matter competence; (d) Pupil activities; and (e) Pupil evaluation.

The student teacher could also undertake a self assessment of his performance, in terms of PREP INDEX. He/she can compare it with the assessment made by the faculty member.

(vi) Internship: The purpose of internship is to provide the student teacher (intern) with an opportunity of undergoing a meaningful experience as a practitioner. The Internship program should be structured such that there is a partnership between the school and the teacher education institute. The intern must be made to take part in all the activities of the school. She/he is practically and functionally a regular teacher without salary. This can be accomplished by providing him/her the necessary physical space as well as pedagogical freedom to innovate. The program will be largely field based so that the intern will get the experience of real problems that a practitioner has to deal with. To achieve this objective the intern is required to integrate his/her knowledge base, his/her understanding of children, class room processes, theoretical pedagogical considerations, the

strategies and skills he/she has to develop in order to become a reflective practitioner.

Evaluation procedure to be followed during internship may take into account the following activities:

- Mobilization of local resources in internship school
- Maintaining Reflective journals
- Preparation of learning materials
- Exposure to school management aspects
- Clarity about SDMC meetings
- Organizing field visits
- Documentation of Bio diversity in the local habitat
- Documenting community medicinal practices
- Identification of CWSN
- Trying out innovations – ICT, Dramatics
- Preparing unit plans and resource units
- Organizing project based learning
- Preparing improvised apparatus
- Developing school garden
- Organizing cultural programs
- Organizing sports programs

To evaluate these aspects appropriate tools such as checklists, rating scales, observation schedules, interview schedules, anecdotal records, cumulative records, portfolios, mind maps may be developed and used. In addition, ICT can be used to evaluate through mobiles, computer, internet, e mails which can also bring in transparency in assessment. Some of the examples of check lists, rating scales are given in the Annexure .

4.2 Continuous and Comprehensive Evaluation (CCE):

CCE comprises Continuous assessment and Comprehensive assessment. Continuous assessment refers to assessment of continuous progress made by learners in reaching expected learning outcomes. Whereas Comprehensive assessment refers to the assessment of total personality development of learners. This includes --in addition to cognitive aspects-, attitudes, interests, social qualities, values and emotions. Let us first understand the major concepts associated with CCE.

(a) Continuous Assessment: In addition to teaching, teachers also have the responsibility to find out what the students in their classes know, are also able to do and help them to move in the desirable manner. When this is done in a variety of ways over a period of time, and used for the improvement of students' learning, it becomes continuous assessment. Continuous assessment refers to what is taking place in the classroom in an 'ongoing basis'. When this is assessed in a variety of ways over a period of time and used to improve student learning then it is continuous assessment. And this continuous assessment is meant to be used for improving the quality of education.

Difference between Continuous Assessment and Examination/test

Continuous assessment is ongoing; it is based on observations of what students are doing and how they are progressing. While examination is one technique used to assess learners achievement in academics (curricular aspects) and they are only a 'snapshot' of the learner (a single photo), continuous assessment is like having video indicating periodical changes of the learner. This indeed gives a better picture of the learners' progress. Ultimately both examination and continuous assessment contribute to the evaluation of students' progress.

Advantages of Continuous assessment: There are four distinct advantages of continuous assessment.

(i) Feed back: Continuous assessment provides information to learners about their performance. It includes constructive comments and concrete suggestions for the improvement of learners. Thus, feedback motivates learners to better their performance.

(ii) Remediation: Remediation is an act of the teacher in re-teaching the way learners can understand. Remediation is needed by those learners who fall behind and who need additional help. Teachers know that all learners can succeed if given the right opportunities. Teachers should also know that not all learners learn in the same way or at the same speed. Therefore, depending upon their speed and style of learners, remediation is provided, which helps learners to move ahead. Continuous assessment facilitates remediation..

(iii) Enrichment: Enrichment means 'to make richer'. Enrichment activities in the classroom makes learners richer in knowledge, attitudes & skills. Many fast learners grasp ideas and skills easily and would benefit from intellectually stimulating experiences. Continuous assessment can facilitate enrichment activities.

(iv) Help teachers: Teacher's responsibility is to ensure that suitable learning opportunities and experiences are created and provided to all learners. This must lead to construction of knowledge leading to authentic learning. To know whether the learners are learning, the teacher needs continuous assessment. Continuous assessment helps a teacher in the following ways.

1) Which learners are struggling with a topic or skill?
2) Which aspect of the topic is difficult for learners?
3) Which learners are grasping the topic/skill well?
4) How are different learners progressing?
5) Whether teaching was effective in helping learners progress?

(b) Comprehensive Assessment: Education aims at promoting all round development of the child. This all round development involves both the scholastic & the non scholastic areas of pupils' growth. Comprehensive & continuous evaluation requires the use of a number of unconventional techniques & tools in addition to all conventional ones. One of the major criticisms of our present system of examinations is that it covers only a small segment of a pupil's personality.

The main criticism of our prevailing system of examination is that it covers only a small segment of pupil's personality and pass judgment on the whole personality. But the development of total personality includes desirable values, attitudes, interests, personal & social qualities, proficiency in sports & cultural activities. Unfortunately these are considered less important for assessment. In this back ground NCF-2005 & NCFTE-2009 have been emphasizing the implementation of continuous and comprehensive evaluation. This has been taken care of in the revised D.Ed. Curriculum (2012). A sincere effort is made in the

revised curriculum to perceive this shift from routine examination, to CCE both at the teacher training level as well as at the elementary school Level. This scheme endeavors to cover both scholastic (Cognitive) as well as non scholastic (Affecto-motor) aspects of learners.

Evaluating Affecto-motor domain activities

As teachers are concerned with the all-round development of students, they are expected to organize various curricular and co curricular activities to provide varied experiences to them. Such learning experiences lead to development of positive attitudes, character building, interests, good habits and team spirit. Teachers are required to asses these aspects also.

The evidence available in research reveals that, like cognitive and psychomotor objectives, many affective objectives can also be attained relatively quickly and are therefore amenable to evaluation. Different tools and techniques that can be meaningfully used include Rating scales, Checklists, Observation, Interview, and Sociometry. The scoring of such tests does not lead to passing or failing but in developing a profile of that character. It need not be a monthly or annual exercise but a continuous process. Apart from all these, maintaining anecdotal records help in noting down anecdotes of all desirable socio-personal qualities which merit recordings. Thus, affect-motor domain activities can and need to be developed and assessed.

It is desirable that the following need to be kept in mind to make Continuous & Comprehensive Evaluation effective. While, continuous evaluation is process-based evaluation, comprehensive evaluation could consider the following.

1. Identification of 'Areas' of evaluation
2. Division of Areas into Aspects
3. Development of Evaluation criteria for each aspect
4. Preparation of evaluation tools
5. Collection of evidences
6. Summarization of evidences & preparing progress reports
7. Use of results

A Sample in the area of Sports and games is given in Annexure

4.3 Evaluation from Constructivist perspective :

NCF (2005) and NCFTE (2009) advocate Constructivism as a philosophical position which articulates that every learner constructs his/her own knowledge based on his/her experiences. If a new approach to learning and teaching is to be developed and used, a new model of evaluation is obviously needed commensurate with the new approach. It is recommended that a learning task should be evaluated before, during and after the work. In the constructivist perspective how did the learner learn is equally important as to how much he learnt and the reporting of the results should also be in the same manner. Therefore a shift is needed from quantitative evaluation to qualitative evaluation. If this is to be understood and brought in to practice in its true spirit, teacher educators are to be oriented properly in this regard. Some important tools and techniques which are used/ can be used for constructivist evaluation are given in the Annexure.

Tools for evaluating constructivist learning environments**:** Some of the tools that can be used are as follows.

- **Anecdotal Records:** Anecdotal records –as explained above-- could be used for recording observation of students inside and outside the classroom.
- **Celebration of Learning:** This is a demonstration where student teachers have an opportunity to share their expertise in several subject areas with other student teachers, teacher educators and even parents.
- **Exit Cards:** These involve easy five minute activity to check student teachers knowledge before, during and after a lesson or complete unit. Student teachers respond to three questions of teacher educators. Teacher educators can quickly evaluate the responses and plan necessary instruction.
- **Graphic Organizers:** Graphic organizers, also known as mind maps, are instructional tools used to illustrate prior knowledge.
- **Journals:** Journals can be used to assess the process of learning and student growth. They can be open-ended or the teacher educators can provide reflective questions for the student teachers to respond to. These often provide insight into how the students are synthesizing their learning.
- **KWL Charts:** K –what do the student teachers already **k**now? W –what do the student teachers need and **w**ant to know? L – What did the student teachers **l**earn? This is not only an effective pre-assessment tool but also an effective tool to evaluate the level of understanding. Many teachers use the L part as an open-ended question in an examination allowing the students to share the depth of knowledge gained in the unit of study.

- **Learning Logs:** Short, un-graded and unedited, reflective writing is learning log. This is a venue to promote genuine learning activities.
- **Peer Assessment:** Assessment in which a learner, groups of learners or the whole class gives written or verbal feedback to others. Peers can use checklists, rubrics or give a written response to peer work.
- **Portfolios:** A portfolio is a representative collection of an individual student teacher's work. A student teacher's portfolio is generally composed of best work to date and a few works in progress that demonstrate the process.
- **Questioning:** Questions are a key element in each of the building blocks of constructivism. Categories of questions are guiding, anticipating, clarifying and integrating.
- **Rubrics:** Rubrics are scoring guides or sets of expectations used to assess student teachers level of understanding and allow student teachers to know the expectations to learn at a higher level.
- **Self-assessment:** Assessment in which a learner reflects on his/her own learning and based on specific criteria evaluates his/her learning. Teacher educators may provide checklists, rubrics, open-ended questions to guide the student teachers in their self-assessment.

4.4 Interpretation and Feedback

It refers to making sense of outcomes of whatever observations or measurements or impressions one gathers through various tools and techniques. Usually, explanations, appreciations, pointing out the drawbacks, strengths & weaknesses and attaching meaning to the raw events of assessment are some of the things we use in assessments. They enable us to make meaning out of assessment. The teacher's acts in assessments depends upon his/her understanding and clarity of importance of assessment.

Interpretation begins when the teacher notices something significant in what the student says & does. To make sense of students' behaviour, any assessor (who wants to achieve more than a description of what the student has said and done) must at least ask himself/herself (and student also), what the behaviour means to the student. The superficial level of interpretation will not be adequate in educational context. In such contexts the assessor is interested in diagnosis with a view to proving a treatment for improvement of the learner. Teachers' interpretations can depict the level of the learner. It is very important that keeping in view the need for correcting the learner, teacher need to highlight the strengths predominantly and also convey the limitations of the learner mildly. This should be objectively done. This is likely to inform and influence the learner in strengthening his strengths and correcting the limitations. This has tremendous psychological implication on the learner as well as the teacher.

Effective feedback enables the student to identify his/her strengths and weaknesses and enables him/her to improve. Feedback of assessment will only be useful when it includes verbal comments. The teacher who has made the assessment needs to verbalise his/her reactions to students' performance, saying which aspects of learner is strong or weak or interesting. S/He should give all the possible suggestions objectively to help the learner to improve.

Just as assessment gives students feedback about their learning, so also it gives the teacher a feedback as to how well they have transacted or how well they have become relevant to all learners. Thus assessment also contributes to course evaluation. A professional teacher is an autonomous practitioner who is capable of understanding learners, willing to be reflective and responsible to own up the consequences of one's innovations.

5: Course-wise Strategies

Different courses that are to be transacted by the teacher educators in the first year D.Ed programme are presented as follows.

1.1Education – Introduction to basic concepts

This course adopts an integrated approach towards providing an introduction to the foundations of education. Theoretical understanding is strengthened through a variety of practical ideas suggested in each unit.

1. Shift in Perspectives

- Different papers dealing with the foundations of education are combined in one integrated course
- Sociological perspectives are included along with psychological and philosophical perspectives on education
- Inclusive education from a broad perspective of diversity is introduced
- Readings, watching films/videos, discussions and reflections form the core transactional strategies for theory component
- Meaningful practical activities are emphasised to strengthen theoretical understandings
- A continuous and comprehensive evaluation using multiple modes is expected

2. Brief explanation of key terms

Andragogy: Refers to the science and art of understanding and supporting education of adults. Malcolm Knowles's theory of andragogy is popularly used and is based on a humanistic conception of self directed and autonomous learners. Reflections and experiences are crucial for adult learning. Teacher educators need to co-opt andragogic principles as student teachers coming to the D.Ed programme are young adults.

Constructivism: It is a philosophical position that the learner constructs his/her own knowledge. Key principle of constructivism is that learning is an active process wherein we interpret the world based on our experiences and interactions. Learning is not simply the acquisition of correct responses, a set of vocabulary or a set of behaviours. Instruction therefore needs to be a process of facilitating active construction of meaning leading to formulation of learning.

Inclusive Classrooms: Aim to create a sensitive and responsive setting to cater to the needs of all learners, including those with different abilities and varied social and cultural backgrounds. They include socially, culturally and economically disadvantaged groups as well as children with disabilities and those who are gifted and talented. Such classrooms celebrate diversity by viewing learner diversity as opportunities for enriching learning and cater to a wide spectrum of diverse group of learners.

Reflection: Refers to the capacity of an individual to think thoughtfully and deeply to analyse past events and to consider alternative courses of action. It involves meta level thinking and persistence in careful consideration of practice. Reflection is also a social practice in which articulation of ideas to and with others becomes crucial to the development of a reflective practitioner.

As a process, it helps in objectively thinking about an act or idea by way of asking what went right or wrong and how it can be made more effective. It is a powerful tool to improve one's own practice/behaviour/act/thinking process. Reflection therefore needs to be cultivated as a deliberative habit and is not a set of procedures or skills to be learnt.

Praxis: Refers to informed, committed action. It involves creating knowledge out of experience and reflection. Developing praxis helps one become critically aware of one's action.

3. Mode of Transaction and Assessment

Suggestions in the curriculum are briefly explained in this section. The activities listed here are by no means exhaustive or meant to be prescriptive. They are meant to provide pointers for teacher educators to build on further.

S.No.	Units	Major Objectives	Suggested activities for classroom transaction	Suggested Assessment techniques
1	Education: An Introduction	1.1 To introduce the broad aims of education and processes of schooling	1.1.1 *Watching films/videos* - After watching a film like "Do flowers fly" a discussion on the idea of schooling, based on reflections on their practical exercise of school visioning and their own schooling experience. 1.1.2 *Discussions based on reading* - "Totochan", "A Parrot's tale", "Animal Story" are some reading materials that student teachers must read followed by group discussions on salient ideas and reflections. 1.1.3 *Preparing collage* - With inputs from Arts in Education, a collage can be prepared based on the ideas emerging from the film, readings and discussions.	1.1.2 Participation in discussions- Based on rating scale 1.1.3 Preparation of collage- Based on rating scale

* The journal must be maintained both in first and second years.		1.2 To appreciate teacher as a reflective professional and help develop his/her emerging identity	1.1.2 *Discussions based on reading* – Books like "The Diary of a School Teacher", "*Hagalukanasu*" can be assigned for reflective reading, aided by worksheets. 1.2.2 *Conducting class discussions* – Based on recollection of their own teachers and their image of an ideal teacher. 1.2.3 *Providing inputs for maintaining reflective journals** – Teacher educator can facilitate by posing key questions and introducing techniques such as recording their own critical learning moments and Strength-Weakness-Opportunities-Threat (SWOT) analysis.	1.2.1 Worksheet – Quality of responses in the worksheet 1.2.3 Journal – Regularity and quality of entries based on rating scale
		1.3To introduce the concept of knowledge and what it entails for teaching learning and curriculum	1.3.1 *Conducting small group discussions*- Each group can discuss on what knowledge means to them. 1. 3.2 *Guided reading and explanation*– NCF 2005 (pp24-28) and Krishna Kumar's essay "What is worth teaching" can be read with teacher educator's help. 1.3.3 *Conducting discussions and Lecturing* – Learning from the group discussions and guided reading can be consolidated with a short lecture.	1.3.2 Worksheet – To ascertain comprehension of reading passages and lecture
		1.4 To understand the importance of strong school community linkages and ways of forging them	1.4.1 *Brainstorming* - On possible community resources and ways and means of tapping them. 1.4.2 *Conducting class discussions* – Based on survey report. 1. 4.3 *Arranging guest lecture* – Representative from a local NGO engaged with the community or CRP/BRP on Government programmes such as *Samudaayadatha Shaale*.	1.4.3 Paper and Pencil Test – To assess understanding in the context of the class discussions and guest lecture

2.	Learner: A Social Being	2.1.To introduce notion of plurality of childhoods and the social context of education, school, teacher, and curriculum	2.1.1 *Small group discussions* - On idea of society, what it is and is not, what it can be and cannot. These discussions can draw from the recent activism of civil society. Teacher educator should help link the outcomes of discussions to education and school.	2.1.1 Participation in discussions- Based on rating scale
			2.1.2 *Discussions based on Reading* - Portions from ethnography studies like Sarangapani's : Constructing School Knowledge" (pp 46-64) can be read with teacher educator's help and reflected upon.	2.1.2 Comprehension test – To assess reading (Either oral or written)
			2.1.3 *Watching films and videos* – Videos such as "Chinmayi" and those developed by Vidyankura project on Soliga children, based on children and their identities followed by class discussions.	
			2.1.4 *Organising role play* - On different socialization contexts with help from Arts in Education.	2.1.4 Role play/Debate - Based on a rating scale to ascertain quality of participation, preparation & presentation
			2.1.5 *Holding debates* - On topics such as competition vs. cooperation, schools as socializing spaces vs. initiating reforms.	
		2.2 To be aware of inclusion or exclusion of knowledges from school curriculum	2.2.1 *Conducting class discussions* - On who decides what is to be learnt in school, how does school knowledge evolve. These discussions have to draw from learnings on knowledge in the previous unit.	
			2.2 .2 *Reading* – NCF 2005 (pp29-33) facilitated by teacher educator followed by discussions.	
			2.2. 3 *Studying textbooks* – Can be taken up in small groups. Each group can take up one subject and analyse a middle school textbook for inclusion/exclusion of different forms of	2.2.3 Written essay – To ascertain level of awareness and sensitivity

			knowledge. Criteria for analysis can be evolved collectively. Findings to be shared in class for discussions.	
		2.3 To introduce the aims and objectives of education from a sociological perspective	2.3.1 *Reading* - NCERT's position paper on Aims of Education can be read with teacher educator's help followed by discussions. 2.3.2 *Initiating dialogues* - On aims of education as perceived by student teachers. These can be used to reflect on their own ideological underpinnings.	2.3.1 Written questionnaire – To ascertain comprehension of reading passage
		2.4 To understand the contexts of socialization	2.4.1 *Conducting class discussions* - On what makes a school effective, how to create an inviting environment for all children in a school. 2.4.2 *Conducting group discussions* - On bullying, punishment, home environment, upbringing. 2.4.3 *Arranging guest lecture* - Address by collectives of women/ community members on their role in children's development. Student teachers to prepare leading questions for the speaker before hand. 2.4.4 *Discussions based on reading* – Every student teacher to share a relevant newspaper/magazine article with the class to present different contexts of socialization and how it impacts identity formation. 2.4.5 *Group discussions and Lecturing* - Learnings from all activities to be consolidated with a lecture followed by writing of reflective essays by student teachers.	2.4.1 Participation in discussions- Based on rating scale 2.4.5 Written test – To ascertain understanding of socialisation contexts
3.	Learner and Learning	3.1.To understand developmental characteristics of childhood and early adolescence	3.1.1 *Reading* – Kamala Mukunda's "What did you ask at school today" (Chapter 4) and FGD. Discussions to draw from the practical of observing children.	3.1.1 Worksheet – To ascertain reading comprehension

			3.1.2 *Reflections*–On their own growing up years and relating major developmental stages to theoretical constructs. 3.1.3 *Lecture and Discussions*- On theories of development	
		3.2 To explore the concept of learning and processes of children's learning	3.2.1 *Taking up activities* – Such as recalling their student days and identifying how it is different from what is now considered as meaningful learning; Survey ideas of other student teachers, teacher educators, teachers and school children on the concept of learning and how children learn. Compare ideas and discuss. 3.2.2 *Reading* – Mythili's "How Children Learn" and discussions on learning and assessing. 3.2.3 *Role Play and Discussions* – On how a teacher's conception of learning affects her instruction strategies. 3.2.4 Analysing – Samples of children's writing to understand their thinking process. Discussions on pitfalls in merely marking right or wrong.	3.2.1 Participation in activities – Based on rating scale
		3. 3 To understand learner differences	3.3.1 *Reflecting*- Reflecting on common learning strategies one uses in different contexts. 3.3.2 *Discussing* – On how different styles and strategies only reflect diversity in learning but have no bearing on the quality of learning. 3.3.3 *Guided reading and explanation*– NCF 2005 (pp14-16). 3.3.4 *Brainstorming*– Ways and means of catering to diverse requirements of children, including those with disabilities and from marginalised communities 3.3.5 *Preparing a lesson plan using arts component* – To cater to diverse learners. The plan can incorporate missing aspects that were	3.3.3 Write up – To assess attitude towards diverse learning needs 3.3.5 Lesson plan preparation – Based on checklist

			identified in the practical while critiquing the observation of a teacher's class. 3.3.6 *Reading and discussion* – Portions from DSERT's "Multi grade Teaching Manual".	
		3.4. To understand play and its educational implications	3.4.1 *Conducting group discussions* – Based on observations of children at play and their own experiences of play. Identifying educational implications of play. 3.4.2 *Reading and discussion* – Portions from "Child at Play" and Krishna Kumar's "Child's Language and the Teacher" (pp5-6) and discuss on role of play in cognitive development and language development. 3.4.3 *Reflecting* – On Maria Montessori's statement "Play is children's work" and link between play and creativity, self regulation and tolerance. 3.4.4 *Linking*–To unit on "Play" in Arts in Education and discussions on pedagogical implications of play. 3.4.5 *Viewing video clips* – Using mobile phone cameras few video clips of children playing can be taken, after obtaining due permission from concerned adults. These can be used to discuss on the theoretical constructs of play.	3.4.1 Participation in discussions – Based on rating scale
		3.5 To introduce the basic principles of constructivism	3.5.1 *Guided reading and explanation*– NCF 2005 (pp17-20). 3.5.2 *Class Talk* – On constructivism and its implication for teaching learning.	3.5.1 Written test – To assess understanding of reading and class talk

4.	Inclusive Education	4.1.To introduce inclusive education in the context to education for all	4.1.1 Case Study - Students shall be given two case studies one of an inclusive class room and the other on traditional classroom for critical thinking. Reflections on inclusiveness 4.1.2 *Role play:* ST in groups share and discuss their experiences when they were in schools in context of inclusion.	4.1.1 Case Study Report – Based on a checklist
		4.2.To understand the evolution of inclusive education from special and integrated education and its implication in the existing education scenario.	4.2.1 *Class Talk* : Based on policy documents UNCRPD, RTE, Salamanca statement in the context to right to education of diverse groups. Followed by interpretation and explanations 4.2.2 *Presentation:* Concluding Presentation on IE based on the student teachers' work	
			4.2.3 Role Play: To make groups and enact role plays depicting the understanding of inclusiveness.	4.2.3 Participation in role play – Based on rating scale
		4.3 To understand the concept of inclusive education from the perspective of diversity among learners	4.3.1 *Class Talks and discussions* : Class talks by resource persons with experience in the area of gender, disability, SC,ST, Urban deprived and gifted and talented (7 areas) followed by discussions	
			4.3.2 Creative Reading: To provide with self learning materials on various issues and articles and case studies which highlights the needs and from the 7 areas. To provide reading materials on case studies and life history of role models as Hellen Keller, Sudha Chandran , Sister Niveditha	4.3.2 Worksheet – To assess reading comprehension

			4.3.*3 Collaborative Work* - To divide the student teacher into teams for observation of needs of children from 7 areas in a classroom set up (left to individuals in the team to decide who will select which area) .Class presentations - Group wise presentations of 7 areas. 4.3.4 *Watching video* : such as, Learning Together DPEP –Seva-in-Action; Tare Zameen Par followed by discussions. *4.3.5 Creative Writing:* Writing reflective journals based on class talks , discussions and their understanding of IE based on their assignment, field work and observations. 4.3.6 *Seminar :* Inclusive practices and Inclusive Education from a diversity perspective by academicians, professionals and practitioners to provide an exposure to developments in this area.	4.3.3 Quality of presentation – Based on rating scale
		4.4.To value diversity as an educational resource using constructive approach	*4.4.1 Observations* : Student teachers to be made into groups to observe and identify the potentials/uniqueness of diverse groups and their relationship in the learning process through classroom observation. Presentation of their observations. 4.4.*2 Field Visits:* To develop instruments for activities such as observation guides, questionnaires, interviews and to make teams to provide all guidelines for implementing the field activities in a planned manner.	4.4.1 Presentation – Based on rating scale

			4.4.3 *Home Visits*: Visiting in pairs home and discussing with parents regarding their ideas and future for their child.(any two areas.) Presenting the case study. 4.4.4 *Guest Lectures*: Lecturers by persons with disability, gender, SC, ST who have made a mark in their life and society.	4.4.4 Questionnaire – To ascertain student teachers' attitude towards valuing diversity
		4.5 To understand and identify barriers faced by children from diverse background in the learning and school environment	4.5.1 *Field Visits:* Identifying barriers at school in terms of social, psychological or any other relevant to the local conditions in context of 6 areas . (Group work). 4.5.2 *Observation:* Identifying barriers at school and classroom level - in the context of infrastructure, curriculum, transaction and classroom organization faced by children with disabilities. (Group work). 4.5.3 *Mentoring* . Support to be given by an experienced teacher to discuss diverse environments, contexts, and educational services that characterise the educational system 4.5.4*Presentation by student teachers:* Presentations and sharing of observations. 4.5.5 *Presentation by the teacher educator*: On barriers to learning and ways of overcoming them	4.5.4 Quality of presentation – Based on rating scale

		4.6.To create inclusive classroom practices with flexible learning approaches for diverse learners	*4.6.1 Case Study Compare and contrast* inclusive classroom practices from traditional classroom transactions 4.6.*2 Observations:* Of Nali Kali classrooms and reporting different learning styles of a child in the context of diverse group, followed by group discussions. 4.6.3 *Field Visits:* To depute student teachers to inclusive classrooms of either government or private institutions and resource centre of SSA or private institutions. Reporting of the observations. 4.6.4 *Watching films and videos:* Of inclusive classroom transactions such as "Learning Together". 4.6.5 *Developing Checklist*: For ascertaining inclusive schools 4.6.6 *Class Talk*: On inclusive practices 4.6.7 *Special Programmes:* To participate in any one of the awareness programs of diverse groups such as worlds disabled day, literacy day etc and share their experiences *Applying IE principles on different areas and different situations during the course to be encouraged.*	4.6.3 Quality of observation and reporting – Based on rating scale

5.	Contemporary Issues	5.1 To introduce Constitutional provisions for education 5.2. To provide an overview of elementary education initiatives 5.3 To understand the concerns in elementary education and the initiatives taken in Karnataka	5.1.1 *Class Talk* – Introduction followed by discussions through leading questions. 5.2.1 *Reading* – Portions of documents relating to UEE, DPEP and SSA, relating to their aims, objectives & outcomes. 5.2.2 *Arranging guest lectures* – Of SSA functionaries on past & recent initiatives and their perspective of them. Lectures to be followed by Q&A. 5.3.1 *Class Talks* – Based on portions of the annual reports of DSERT and SSA, Karnataka; Summary of a few sample reports of evaluation studies of various programmes. 5.3.2 *Arranging guest lectures* – By a CRP/BRP on past & recent initiatives of GOK and their perspectives of them. Lectures to be followed by Q&A. 5.3.3 *Viewing documentaries* – On intervention programmes in Government schools 5.3.4 *Group discussions* – On various programmes, their relative benefits and ways of improving their impact.	5.2.2 Comprehension of lecture – Based on worksheet 5.3.4 Participation in discussions – Based on rating school

b. Practical

General Note: Unless otherwise mentioned in the curriculum, all practical under each unit are compulsory. Those requiring extended period of school visits can be taken up during practice teaching/internship.

Units	Suggested Practical	Purpose	Pointers for conducting Practical	Suggestions for Assessing Practical
1. Education: An Introduction	1.1 School visioning by student teachers	1.1. Build a robust vision of school based on NCF, 2005 guiding principles	1.1.1 To be taken up at the beginning of the course, time for which is scheduled in the time table 1.1.2 Every student teacher to write their observations which can be shared with the class and discussions held, for which 2-3 hours can be allotted	1.1.1 Write up – Assess quality of observations using simple checklist
	1.2 Workshops to facilitate professional growth	1.2. Facilitate an emerging professional identity	1.2.1 Two workshops each of 5 hours duration has to be facilitated through DIETs. If local experts are not available, DIET has to arrange training for a small group of teacher educators from the district to conduct the workshops on the suggested themes 1.2.2 Workshop inputs have to be utilized by teacher educator in the theory class	1.2.1 Participation in workshops- Based on 4-5 indicators
	1.3 Survey for forging school community linkages	1.3. Provide first hand experience of school-community linkages	1.3.1 To be taken up after theoretical inputs are provided in the class 1.3.2 Survey can be taken up in small groups, which can be done after college hours 1.3.3 Each group to prepare a brief report and share in class for peer review. 3-4 hours can be allotted for this	1.3.1 Participation in designing and conducting survey- Based on 3-4 indicators 1.3.2 Survey report – Peer reviewing based on commonly evolved checklist

2. Learner: A Social Being	2.1 Study of children in context	2.1 Provide first hand experience in observing a child non intrusively	Student teachers can choose between this or third practical 2.1.1Ethics of conducting a study has to be discussed with student teachers. Permission from children, parents and teachers have to be sought. 2.1.2Student teachers have to be oriented for observing a child without making him/her self conscious. Observation and report formats have to be evolved collectively, prior to the study. 2.1.3 Being an individual activity, the actual observation can take place after college hours. 2.1.4 For compiling the observations, report writing and sharing 4-5 hours need to be set aside. Teacher educators have to guide student teachers in these activities.	2.1.1 Study report – To ascertain quality of observations and learning
	2.2. Small group project	2.2 Help apply theoretical constructs in a practical situation	2.2.1 This practical can be made compulsory for all student teachers. 2.2 .2 In groups of 4-5 they can be asked to choose one project from among those suggested. 2.2.3 Teacher educator has to orient student teachers towards the project and help each group design their project. 2 hours can be assigned.	2.2.1 Participation in project preparation – Based on 3-4 indicators 2.2.2 Project report – Based on simple checklist

			2.2.4 Every project involves reference work, field work and preparation of report, which the group can divide among themselves, for which 3-4 hours can be allotted.	
	2.3. Visiting communities	2.3. Help strengthen understanding through objective study	2.3.1 Student teachers have to be sensitized before the visits and a common agenda for the visit evolved for which an hour can be assigned. 2.3.2 Actual visit can happen after college hours, as this is an individual activity. Copious notes have to be made during the visits. 2.3.3 For compiling the notes, report writing and sharing 4-5 hours need to be set aside. Teacher educators have to guide student teachers in these activities.	2.3.1 Written report – To ascertain quality of field visit and learning
3. Learner and Learning	3.1Designing simple tasks	3.1.Observe children's thinking in a variety of contexts	3.1.1 To be taken up before starting theory class. 3.1.2 This is an individual activity. Every student teacher to plan for different tasks. 3.1.3 Two hours can be set aside for planning & preparation; Time for observation can be allotted before college hours; Report writing should be a home assignment; 2-3 hours for report presentation and discussions.	3.1.1 Project report – Based on simple checklist 3.1.2 Presentation of report – Based on 2-3 indicators

	3.2. Preparing teacher casebooks	3.2. Capture practicing teacher's perspective on learner diversity and their reflection on what makes it memorable or challenging	3.2.1 Student teachers can choose between the first & second practical. The 2 practical can be divided among them. 3.2.2 This is an individual activity. Every student teacher to plan for different tasks. 3.2.3 Two hours can be set aside for planning & preparation; Time for observation can be allotted before college hours; Report writing should be a home assignment; 2-3 hours for report presentation and discussions.	3.2.1 Project report – Based on simple checklist. 3.2.2 Presentation of report – Based on 2-3 indicators
	3.3 Critical observation of a classroom	3.3 Critically examine present classroom practices and appreciate need for change in the light of the theory learnt	3.3.1 To be taken up soon after commencing theory class. 3.3.2 This is to be a small group activity. 3.3.3 Two hours may be allotted for evolving criteria & preparing observation schedule; One hour may be set aside for observation, either at the beginning or end of college hours; Two hours can be allotted for discussions.	3.3.1 Narrative report – Based on checklist
4.Inclusive Education	4.1 Using ICT or to create an inclusive learning environment. 4.2 To develop any two instructional materials specifically catering to disabled children and talented children.	All 4 practical are basically to provide hands on opportunities for learning the skills needed to work with diverse groups and specially with sensory and physical disabilities where special skills are needed.	Practical are provided with total 10 hours. The practical can be done after completing the theory papers. External resource persons may be invited wherever required to provide guidelines e.g in street play .	Teacher educator to develop instruments for assessment of the 4 practical with each practical being allocated 5 marks.

	4.3 To produce a street play by a group highlighting the inclusive aspect. 4.4 Survey to study The barriers and opportunities for inclusion, in small groups.		Student teachers to prepare a written report and develop materials as per the requirement of each practical.	
5.Contemporary Issues	5.1 Critical appraisal of constitutional values as practiced in an educational institution 5.2 Analysis of contemporary debates relating to education in the media 5.3. Studying the problems of a first generation school goer 5.4. Studying the work of KSQAAC or SSA, Karnataka	5.1 Develop critical awareness of how constitutional values are put into practice 5.2. Analyse possible role of media is influencing policy 5.3. Appreciate actual needs in context and systemic issues related to realizing the needs 5.4. Gain skills in taking up short studies to get in depth understanding	All four projects are meant for small group work. While planning & preparation and subsequent report sharing can happen during college hours, actual study and report writing can take place outside college hours. Preparation required for each project: 1. Simple appraisal form 2. Format for analysis 3. Questionnaires for child, peers, parents and teachers 4. Format for study, including aspects to be studied and nature of literature to be chosen for the study	Common to all four projects: 5.1 Participation during preparation – Based on 2-3 indicators 5.2 Report – Based on simple checklist 5.3 Participation during presentation - Based on 2-3 indicators

c. Class Talks

Topics that student teachers are expected to know but need not be assessed are included as class talks. The talks are delivered by experts in the field and recorded. These recorded talks are played in class for the benefit of student teachers. This would ensure that all student teachers across the State get uniform inputs on these essential topics. Teacher educators have to orient student teachers towards each talk prior to playing them. Therefore, it is desirable that the teacher-educator must see them before playing class talk CDs/DVDs. After the student-teachers see/listen, a discussion has to be initiated to reflect on the talk.

Suggestions for internal marks allocation:

Units	Theory[1]	Practical[2]
1. Education: An Introduction	5	10+5+10
2. Learner: A Social Being	10	10+10
3. Learner and Learning	20	5+10
4. Inclusive Education	10	10+10
5. Contemporary issues	5	5+5
Total[3]	**50**	**90**

[1.] Teacher Educator can decide on one or more activities to take up for internal assessment

[2] The marks shown are split based on the number of practical in each unit, in the order of their occurrence in the curriculum

2 The total can then be reduced to 10 and 30 respectively.

4 Suggested Readings

Batra, S. (2003). From School Inspection to School Support. In Sood, N. (ed) *Management of School Education in India.* New Delhi: NIEPA.

Bhat, V.D. (2004). Teacher accountability to self, system and community. In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers*. Mysore: Regional Institute of Education.

Budheka, G. (1990). *Divasvapna.* New Delhi: National Book Trust India.

Csikszentmihalyi, M. (2005). *Thoughts about Education.* www.newhorizons.org

Danger school. (1996). Mapusa, Goa, India: Other India Press.

Dewey, J. (1952). *The School and the Child,* New York: The Macmillan Company.

Erikson, E. H. (1972). *Play and Development*. New York: W.W. Norton.

Friere, P. (1992). *Pedagogy of hope.* London, UK: Continuum pub. Co.

Holt, J. (1995). *How Children Fail.* Addison-Wesley Pub. Co.

Illich, I. (1970). *Deschooling Society,* London, UK: Marion Boyars.

Kumar, K. (1988). *What is worth teaching*. New Delhi: Orient Longman.

Kuranyangi, T. (1993). *Totochan*. New Delhi, India: National Book Trust.

Miller, R. (2006). *What is Education For*? www.pathsoflearning.net

Mukunda, K. V. (2009). What did you ask in school today? *A Handbook on child learning.* Noida: Harper Collins. pp. 79-96.

Mythili, R. (2008). A Study based on Karnataka School Quality Assessment Organisation's 2006 Performance Reports. Bangalore: KSQAO.

Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Murthy, C.G.V. *et al. (*2004). Quality assurance of professional practice of classroom practitioners through action research. In In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Murthy, C.G.V. (2004). Professional development of teachers: What, why and how. In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Nagaraja, C.G. (2004). Effective school administration and management: A prerequisite for quality education. In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

NCERT. (2008). *Social and Political life-III.* Class VIII Textbook, Unit 1, 2 and 4.

NCERT. (2006). *National Focus Group Position Paper on Aims of Education.*

NCERT. (2006). *National Focus Group Position Paper on Gender Issues in Education.*

NCERT. (2006). *National Focus Group Position Paper on Education with Special Needs Inclusive Education.*

NCERT. (2006). *National Focus Group Position Paper on Problems of Scheduled Caste and Scheduled Tribe children.*

Neill, A S. (1992). *Summerhill School – A new view of childhood.* New York: St. Martin's Griffin.

Rao, A.V.G. (2004). School community linkage and quality of education. In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Rao, M. (2004). Evaluation for quality education. In In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Sibia, A. (2006). *Life at Mirambika: A free progress school*. New Delhi: NCERT.

Sridhar, Y.N. (2004). Networking of teachers for quality maintenance. In Murthy, C.G.V. *et al. (*2004). *Quality education in schools: A handbook for teachers.* Mysore: Regional Institute of Education.

Sykes, M. (1988). *The story of Nai Taleem.* Vardha: Nai Taleem Samiti, Sevagram.

Tagore, R. (1918). *The parrot story.* www.parabaas.com

Select Study Reports Published by DSERT; SSA, Karnataka; KSQAO

List of digital resources

Movies/Documentaries (DVDs to be purchased by institutions)

- Bettadahoovu
- Thaare Zamee Par
- Selection of clippings from the serial *Sathya Meva Jayathe*
- *I Wonder* by Anupama Srinivasan
- *Where knowledge is free* by Binitesh Baruri

Videos (Open source)

- Do Flowers Fly
- Chinmayi: Through the eyes of children
- The House on Gulmohar Avenue

Web sites

www. dsert.kar.in
www.unesco.org
www.arvindguptatoys.com/films.html
www.cultureunplugged.com

1.2 Facilitating Learning:

೧.೨.೧ ಕನ್ನಡ

ಪ್ರಸ್ತಾವನೆ

ಭಾಷೆಯನ್ನು ಸಹಜವಾಗಿಯೇ ನಾವು ಸಂವಹನಕ್ಕಾಗಿ ಬಳಸುತ್ತೇವೆ. ನಮ್ಮ 'ವಾಸ್ತವ'ಕ್ಕೆ ರೂಪ ನೀಡಿ ಮನಸ್ಸಿನಲ್ಲಿ ಮೂಡಿಸುವುದು ಭಾಷೆಯೇ – ನಮ್ಮ ಚಿಂತನೆಗಳನ್ನು ನಾವು ಪ್ರಾರಂಭಿಸಿ, ಅದಕ್ಕೆ ವಿವಿಧ ಆಯಾಮಗಳನ್ನು ಜೋಡಿಸಿ ವಿಸ್ತಾರಗೊಳಿಸಿಕೊಳ್ಳುವುದು ಭಾಷೆಯ ಮೂಲಕವೇ. ಭಾಷೆಗೂ ಸಂಸ್ಕೃತಿಗೂ ಗಾಢವಾದ ಸಂಬಂಧವಿದೆ. ಶಿಕ್ಷಣದಲ್ಲಿ ಭಾಷಾ ಶಿಕ್ಷಕರ ಪಾತ್ರ ಬಹಳ ಮಹತ್ವದ್ದು. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ಸಮುದಾಯದೊಡನೆ, ಸಂಸ್ಕೃತಿಯೊಂದಿಗೆ, ಸಾಹಿತ್ಯದೊಂದಿಗೆ ಸಮ್ಮಿಳಿತಗೊಂಡಂತೆ ಭಾಷಾ ಕಲಿಕೆಗೆ ಅನುವು ಮಾಡಿಕೊಡುವ ಸಾಧ್ಯತೆಗಳನ್ನು ತೆರೆದಿಡುವುದು ಈ ಪತ್ಯ ವಿಷಯದ ಆಶಯವಾಗಿದೆ. ಈ ಪತ್ಯಕ್ರಮದ ರಚನೆಯಲ್ಲಿ ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ ಅನುಭವಗಳಿಗೆ ಮತ್ತು ಅವರ ಅಭಿರುಚಿಯ ಮುಕ್ತ ಹಂಚಿಕೆಗೆ ಅವಕಾಶಗಳಿವೆ. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ತಾವು ಅನುಭವಾತ್ಮಕವಾಗಿ ಕಲಿತಿದ್ದನ್ನು ವಿವಿಧ ರೀತಿಯಲ್ಲಿ ಬಳಸಿಕೊಳ್ಳುವುದಕ್ಕೆ ಆದ್ಯತೆ ಇದೆ. ಭಾಷಾ ಶಿಕ್ಷಣ ಶಾಸ್ತ್ರದ ತಾತ್ವಿಕ ಅಂಶಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ತರಗತಿಯನ್ನು ವೀಕ್ಷಿಸಿ, ಅದರ ಬಗ್ಗೆ ಚಿಂತನೆ ನಡೆಸಲು ಅವಕಾಶಗಳನ್ನು ಕಲ್ಪಿಸಿಕೊಡಲಾಗಿದೆ. ಎರಡನೇ ವರ್ಷದ ಪತ್ಯಕ್ರಮವನ್ನು, ಮೊದಲ ವರ್ಷದ ಪತ್ಯಕ್ರಮದ ಬುನಾದಿಯ ಮೇಲೆ ರಚಿಸಲಾಗಿದೆ. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ಸ್ವ – ಅನುಭವಗಳಿಂದ, ಪ್ರಯತ್ನಗಳಿಂದ ಸಶಕ್ತರಾಗಿ ತನ್ಮೂಲಕ ಕಲಿಯುವ ದಾರಿಯನ್ನು ರೂಪಿಸಿಕೊಳ್ಳುವ ಸಾಧ್ಯತೆಗಳಿಗೆ ಇಲ್ಲಿಯೂ ಆದ್ಯತೆ ಕೊಡಲಾಗಿದೆ. ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಹೊಸ ಅನುಭವಗಳಿಗೆ ಎಡೆ ಮಾಡಿಕೊಟ್ಟು, ಹಿಂದಿನ ಮತ್ತು ಪ್ರಸ್ತುತ ಅನುಭವಗಳ ಬಗ್ಗೆ ಚಿಂತಿಸಲು ಅವಕಾಶಗಳನ್ನು ಕಲ್ಪಿಸಲಾಗಿದೆ. ಅವರು ಭಾಷಾ ಕಲಿಕೆಯ ತಾತ್ವಿಕ ಅಂಶಗಳನ್ನು ತಿಳಿದುಕೊಂಡು, ತಮ್ಮ ಅನುಭವಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಅವನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವ, ಪ್ರಶ್ನಿಸುವ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ತೊಡಗಿಕೊಳ್ಳಬೇಕೆಂಬ ಆಶಯವಿದೆ.

ಪತ್ಯಕ್ರಮದ ದೃಷ್ಟಿಕೋನಗಳಲ್ಲಿ ಕಂಡುಬರುವ ಬದಲಾವಣೆಗಳು

ಹೊಸ ಪತ್ಯಕ್ರಮವು ಒಟ್ಟಾರೆ ಕನ್ನಡ ಭಾಷಾ ಕಲಿಕೆ ಹಾಗೂ ಕನ್ನಡ ಭಾಷಾ ಬೋಧನೆಗೆ ಸಂಬಂಧಿಸಿದ ಅಂಶಗಳನ್ನು ಒಂದು ಸಮಗ್ರ ಚೌಕಟ್ಟಿನಲ್ಲಿ ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಬಯಸುತ್ತದೆ. ಭಾಷೆಯ ಬಳಕೆಯಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರು ಎಷ್ಟು ಪ್ರೌಢಿಮೆ ಸಾಧಿಸುತ್ತಾರೆಯೋ ಅವರು ಅಷ್ಟೇ ಉತ್ತಮ ಶಿಕ್ಷಕರಾಗಿ ರೂಪುಗೊಳ್ಳಬಲ್ಲರು ಎಂಬ ಮೂಲಕಲ್ಪನೆ ಈ ಪತ್ಯಕ್ರಮದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಕೆಲಸ ಮಾಡುತ್ತಿದೆ. ಭಾಷೆಯ ಬಳಕೆಯೆಂದರೆ ಬರೀ ಆಡು ಭಾಷೆಯಲ್ಲ. ಈ ಪತ್ಯಕ್ರಮದ ಗಮನವು ಸಾಹಿತ್ಯದ ಮೇಲಿದೆ. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಆಳ ಓದು ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರ ಕನ್ನಡ ಭಾಷಾ ಸಾಮರ್ಥ್ಯಕ್ಕೆ ಉತ್ತಮವಾದ ಅಡಿಪಾಯ ಹಾಕುವುದರೊಂದಿಗೆ ಭಾಷಾ ಕಲಿಕೆ ಕುರಿತಾದ ಚಿಂತನೆಯನ್ನೂ ಬೆಳೆಸಲು ಕಾರಣವಾಗುತ್ತದೆ. ಓದುವ ಸಾಮರ್ಥ್ಯದ ಬೆಳವಣಿಗೆಯಿಂದ ಜ್ಞಾನ ಗಳಿಕೆ ಸುಲಭವಾಗುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಗಳು ಸ್ವಕಲಿಕಾ ಸಾಮರ್ಥ್ಯ ಬೆಳೆಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುತ್ತದೆ. ಈ ಪೂರ್ವಕಲ್ಪನೆಗಳನ್ನು ಪ್ರಶಿಕ್ಷಕರು ಅರ್ಥ ಮಾಡಿಕೊಂಡು ಪ್ರಸ್ತುತ ಕನ್ನಡ ಪ್ರತ್ಯಕ್ರಮವನ್ನು ಅನುಷ್ಠಾನಿಸಬೇಕಾಗಿದೆ.

ಹೊಸ ಪಠ್ಯಕ್ರಮವು ಎರಡೂ ವರ್ಷಗಳಲ್ಲಿ ಕನ್ನಡ ಭಾಷಾ ಕಲಿಕೆಗೆ ಅವಕಾಶ ನೀಡಿದೆ. ಇದುವರೆಗಿನ ಅನುಭವ ತೋರಿಸಿದಂತೆ ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರಿಗೆ ಹಾಗು ಶಾಲೆಯಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಸ್ವತಂತ್ರ ಕಲಿಕಾದಾರರಾಗುವಲ್ಲಿ ದೊಡ್ಡ ತೊಡಕಾಗಿರುವುದು ಅವರ ಕನ್ನಡ ಭಾಷಾ ಸಾಮರ್ಥ್ಯವೇ ಆಗಿದೆ. ಭಾಷಾ ಪ್ರೌಢಿಮೆ ಮುಂದಿನ ಹಂತದ ಕಲಿಕೆಯ ಯಶಸ್ಸನ್ನೂ ನಿರ್ಧರಿಸುವ ಅಂಶವಾಗಿದೆ. ಆದ್ದರಿಂದಲೇ ಕನ್ನಡ ಕಲಿಕೆಗೆ ವಿಶೇಷ ಒತ್ತು ನೀಡಿರುವುದು.

ಹೊಸ ಪಠ್ಯಕ್ರಮದಲ್ಲಿ ಕಂಡುಬರುವ ಇನ್ನೊಂದು ಮುಖ್ಯ ಅಂಶವೆಂದರೆ ಪ್ರಾಯೋಗಿಕಕ್ಕೆ ನೀಡಿರುವ ಅವಕಾಶಗಳು. ಪ್ರತಿ ಘಟಕದಲ್ಲಿಯೂ ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರು ಯಾವ ಯಾವ ಅಂಶಗಳನ್ನು ಸೈದ್ಧಾಂತಿಕವಾಗಿ ಅರಿತುಕೊಳ್ಳುತ್ತಾರೆಯೋ ಅವುಗಳನ್ನೇ ಪ್ರಾಯೋಗಿಕವಾಗಿಯೂ ಕಲಿಯಲು ಅವಕಾಶ ನೀಡಿದೆ. ಇದರಿಂದ ಭಾಷಾ ಕಲಿಕೆ ಅನುಭವಾತ್ಮಕವಾಗುತ್ತದೆ ಹಾಗೂ ಕಲಿಕಾದಾರರಿಗೆ ಹೆಚ್ಚು ಅರ್ಥಪೂರ್ಣವಾಗುತ್ತದೆ.

ಪಠ್ಯ ಸಂವಹನಾ ಕ್ರಮವನ್ನು ವಿವರವಾಗಿ ನೀಡಿದ್ದು ಸೂಚಿಸಲಾಗಿರುವ ಚಟುವಟಿಕೆಗಳು ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರ ಸಂದರ್ಭಕ್ಕೆ ಪ್ರಸ್ತುತವಾಗುವಂತೆ ಸಂಘಟಿಸಿಕೊಳ್ಳಬೇಕಾಗಿದೆ. ಈ ಚಟುವಟಿಕೆಗಳು ಐ ಸಿ ಟಿ ಹಾಗೂ ಕಲಾ ಶಿಕ್ಷಣವನ್ನು ತಮ್ಮೊಳಗೆ ಸಮ್ಮಿಳಿತಗೊಳಿಸಿಕೊಳ್ಳುವಂತೆ ರೂಪಿಸಲ್ಪಡಬೇಕಾಗಿದೆ. ಇದಕ್ಕಾಗಿ ಐ ಸಿ ಟಿ ಹಾಗೂ ಕಲಾ ಶಿಕ್ಷಣವನ್ನು ವಿಷಯ ಕಲಿಕೆಯೊಂದಿಗೆ ಹೇಗೆ ಸಮ್ಮಿಳಿತಗೊಳಿಸಿಕೊಳ್ಳುವುದು ಎಂಬ ಬಗ್ಗೆ ಆಯಾ ವಿಷಯಗಳಲ್ಲಿ ಮಾಹಿತಿ ನೀಡುವುದರೊಂದಿಗೆ ಈ ವಿಷಯಗಳಿಗಾಗಿಯೇ ಪ್ರತ್ಯೇಕ ಪೇಪರ್ ಗಳನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ.

ಭಾಷಾ ತರಗತಿಗಳಲ್ಲಿ ಒಳಗೊಳ್ಳುವಿಕೆ ಎಂಬ ಹೊಸ ಅಧ್ಯಾಯವೊಂದನ್ನು ಮೊದಲನೆಯ ವರ್ಷದಲ್ಲಿ ಸೇರಿಸಲಾಗಿದೆ. ಎಲ್ಲರನ್ನೂ ಒಳಗೊಳ್ಳುವ ಶಿಕ್ಷಣ ನೀಡಬೇಕು ಎನ್ನುವ ಆಶಯವು ಈಡೇರಬೇಕಾದರೆ ಎಲ್ಲ ಶಿಕ್ಷಕರಲ್ಲಿಯೂ ಒಳಗೊಳ್ಳುವಿಕೆಯ ಕುರಿತಾಗಿ ಸರಿಯಾದ ಪರಿಕಲ್ಪನೆಗಳು ಇರುವುದು ಅಗತ್ಯ. ವಿಶೇಷ ಅಗತ್ಯವುಳ್ಳ ಮಕ್ಕಳ ಕುರಿತಾದ ಕಾಳಜಿಗಳ ಮಿತಿಯನ್ನು ಮೀರಿ ತರಗತಿಯಲ್ಲಿರಬಹುದಾದ ಎಲ್ಲ ರೀತಿಯ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನೂ ಒಳಗೊಳ್ಳಬಹುದಾದಂತಹ ತರಗತಿ ಪ್ರಕ್ರಿಯೆಗಳನ್ನು ರೂಪಿಸುವ ರೀತಿಯಲ್ಲಿ ಶಿಕ್ಷಕರನ್ನು ತರಬೇತುಗೊಳಿಸುವುದು ಇಲ್ಲಿನ ಉದ್ದೇಶ.

ಪದಗಳ ವಿವರಣೆ

ಒಳಗೊಳ್ಳುವಿಕೆ – ಇಂಗ್ಲಿಷ್ ನ ಇನ್‌ಕ್ಲೂಸಿವ್ ಎನ್ನುವ ಪದದ ಅನುವಾದ. ತರಗತಿ ಪ್ರಕ್ರಿಯೆಗಳು ತರಗತಿಯ ಎಲ್ಲ ಮಕ್ಕಳನ್ನೂ – ವಿಶೇಷ ಅಗತ್ಯತೆಯುಳ್ಳವರು, ನಿಧಾನಗತಿಯಲ್ಲಿ ಕಲಿಯುವವರು, ವೇಗವಾಗಿ ಕಲಿಯುವವರು, ವಿವಿಧ ವರ್ಗಗಳಿಂದ ಬಂದವರು – ಹೀಗೇ ಎಲ್ಲರನ್ನೂ ಒಳಗೊಳ್ಳಬೇಕು ಎನ್ನುವುದು ಇಲ್ಲಿನ ಆಶಯ.

ಸಮ್ಮಿಳಿತ ಕಲಿಕೆ – ಪ್ರಾಥಮಿಕ ಹಂತದಲ್ಲಿ ಕಲಿಕೆಯೆಂಬುದು ಒಂದು ಸಮಗ್ರ ಅನುಭವವಾಗಬೇಕು. ವಿಷಯಗಳ ನಡುವಿನ ಗಡಿರೇಖೆಗಳು ಕಲಿಕಾ ಅನುಭವಗಳನ್ನು ಮಿತಿಗೊಳಿಸುವಂತಾಗಬಾರದು. ಕನ್ನಡ ಭಾಷೆಯ ಕಲಿಕೆ ಗಣಿತ, ಪರಿಸರ ವಿಜ್ಞಾನಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳಲೂ, ಆ ವಿಷಯಗಳ ಕಲಿಕೆಯ ಅಭಿವ್ಯಕ್ತಿಗೂ ಅಗತ್ಯವಿದೆ. ಪರಿಸರ ವಿಜ್ಞಾನದೊಳಗೆ ಗಣಿತ, ಗಣಿತ ಕಲಿಕೆಯಲ್ಲಿ ಪರಿಸರದ ಸಮಸ್ಯೆಗಳು ಸಮ್ಮಿಳಿತಗೊಂಡಾಗ ಕಲಿಕೆ ಒಂದು ಸಮಗ್ರ ಅನುಭವವಾಗುತ್ತದೆ. ಇಂತಹ ಕಲಿಕೆಯನ್ನು ಅನುಕೂಲಿಸುವುದು ಸಮ್ಮಿಳಿತ ಕಲಿಕೆಯ ಉದ್ದೇಶ.

ಕಲಿಕೆ ಅನುಕೂಲಿಸುವಿಕೆ – ಕಲಿಕೆ ಮಾನವನ ಸಹಜ ಗುಣ. ಸಹಜ ಕಲಿಕೆಯು ಸ್ವಾಭಾವಿಕ ಪರಿಸರದಲ್ಲಿ ಸಾಂದರ್ಭಿಕವಾಗಿರುತ್ತದೆ. ಶಾಲಾ ವ್ಯವಸ್ಥೆ ಮಾನವನು ಕೆಲವು ನಿರೀಕ್ಷೆಗಳನ್ನಿಟ್ಟುಕೊಂಡು ಹುಟ್ಟುಹಾಕಿರುವ ಕೃತಕ ವ್ಯವಸ್ಥೆ. ಪಠ್ಯಕ್ರಮವು ಶಾಲಾ ಕಲಿಕೆಗೆ ಒಂದು ನಿರ್ದಿಷ್ಟತೆಯನ್ನು ನೀಡುತ್ತದೆ. ಶಾಲಾ ಕಲಿಕೆ ಬೋಧನೆ ಮೂಲಕ ನಡೆಯುತ್ತದೆ ಎನ್ನುವುದು ಒಂದು ಸಾಮಾನ್ಯ ತಿಳಿವಳಿಕೆ. ಆದರೆ ಸಹಜ ಕಲಿಕೆಯ ಗುಣಗಳನ್ನು ಪ್ರಚೋದಿಸಿ ಕಲಿಕಾದಾರರೇ ಸ್ವತ: ಕಲಿಕೆಯಲ್ಲಿ ತೊಡಗಿಕೊಳ್ಳುವಂತೆ ಮಾಡುವುದು ಕಲಿಕೆಯನ್ನು ಮಗುವಿಗೆ ಹೆಚ್ಚು ಆಪ್ತವನ್ನಾಗಿಸುತ್ತದೆ ಹಾಗೂ ಅರ್ಥಪೂರ್ಣವಾಗಿಸುತ್ತದೆ. ಶಿಕ್ಷಕರು ತಾವು ಸರಿ ಅನ್ನಿಸಿದ್ದನ್ನು ಬೋಧಿಸುವುದಕ್ಕಿಂತಲೂ ಮಕ್ಕಳೇ ಕಲಿಕೆಯಲ್ಲಿ ತೊಡಗಿಕೊಳ್ಳುವಂತಹ ಸಂದರ್ಭಗಳನ್ನು ಸೃಷ್ಟಿಸುವುದು ಅಗತ್ಯ ಹಾಗೂ ಅಪೇಕ್ಷಣೀಯ ಎಂದು ತಿಳಿಯಲಾಗಿದೆ. ಅದಕ್ಕಾಗಿ ಶಿಕ್ಷಕರ ಕೆಲಸ ಕಲಿಕೆ ಅನುಕೂಲಿಸುವುದು. ಶಿಕ್ಷಕರನ್ನು ಕಲಿಕೆಯ ಅನುಕೂಲಕಾರರು ಎನ್ನಬಹುದು.

ಪಠ್ಯಕ್ರಮ ಸಂವಹನಾ ಕ್ರಮ

ತಾತ್ವಿಕ ಪೇಪರ್‌ಗಳು

ಟಿಪ್ಪಣಿ: ಪಠ್ಯ ಸಂವಹನಾ ಕ್ರಮ ಮತ್ತು ಮೌಲ್ಯಮಾಪನ ವಿಧಾನಗಳು ಒಂದಕ್ಕೊಂದು ಹೊಂದುವಂತಿರಬೇಕು. ಭಾಷಾ ಸಾಮರ್ಥ್ಯದ ಬೆಳವಣಿಗೆಯ ದೃಷ್ಟಿಯಿಂದ ಕಲಿಕೆಯ ಅನುಭವಗಳನ್ನೂ ಮೌಲ್ಯಮಾಪನ ವಿಧಾನಗಳನ್ನು ಸಮಗ್ರವಾಗಿ ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಆಚರಿಸುವುದು ಆಪೇಕ್ಷಣೀಯ ಎಂಬ ನೆಲೆಯಿಂದ ಯಾವ ವಿಧಾನಕ್ಕೆ ಯಾವ ಮೌಲ್ಯಮಾಪನ ಕ್ರಮ ಎಂಬುದನ್ನು ನಿರ್ದಿಷ್ಟವಾಗಿ ತೋರಿಸಿಲ್ಲ. ನೀಡಿದ ಕಲಿಕೆಯ ಅನುಭವಗಳಿಗೆ ಸೂಕ್ತವಾದ ಮೌಲ್ಯಮಾಪನ ವಿಧಾನವನ್ನು ಗುರುತಿಸಿಕೊಳ್ಳುವುದು.

ಕ್ರ ಸಂ	ಘಟಕಗಳು	ಉದ್ದೇಶಗಳು	ಸೂಚಿತ ಪಠ್ಯಸಂವಹನಾ ಕ್ರಮ	ಮೌಲ್ಯಮಾಪನ ವಿಧಾನಗಳು
೧	**ಸಾಹಿತ್ಯ**	೧.೧ ಭಾಷೆಯನ್ನು ಸಂವಹನದ ಮಾಧ್ಯಮವನ್ನಾಗಿ ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ೧.೨ ಚಿಂತನೆಯ ಮಾಧ್ಯಮವನ್ನಾಗಿ ಭಾಷೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು	• ಪ್ರಶಿಕ್ಷಕರ ಸಾಹಿತ್ಯಾನುಭವ ಹಂಚಿಕೆ • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ – ವಿವಿಧ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳ ಓದು; ಮಂಡನೆ (ಕನಿಷ್ಟ ಎರಡು ಪ್ರಕಾರ) (ಕವನ, ಕಥೆ, ಚಿಂತನಾ ಸಾಹಿತ್ಯ, ನಾಟಕ, ಜನಪ್ರಿಯ ಸಾಹಿತ್ಯ) • ಸ್ಥಳೀಯ ಸಂಪನ್ಮೂಲ (ಜನಪದ ಕಥೆ, ಹಾಡು, ನಾಟಕ, ಕಾವ್ಯ, ಗಾದೆ, ಒಗಟು, ಶಿಶು ಪ್ರಾಸ/ಶಿಶು ಪದ್ಯ) ಸಮೀಕ್ಷೆ • ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿ ಸಂದರ್ಶನ/ಪ್ರಸ್ತುತ ಪಡಿಸುವ ರೀತಿ ಕ್ರಮಗಳ ತಿಳುವಳಿಕೆ • ಅದೇ ರೀತಿಯಲ್ಲಿ ಪುನರ್ ಮಂಡನೆಗೆ ಪ್ರಯತ್ನ • ತಾತ್ವಿಕ ಅಂಶಗಳಿಗೆ ಸೂಕ್ತವಾದ ಲೇಖನಗಳ, ವಿಡೀಯೋಗಳ ವಿಮರ್ಶಾತ್ಮಕ ಓದು; ನೋಟ ನಂತರ, ಗುಂಪು ಚರ್ಚೆ,	• ಚರ್ಚೆ, ಸಂವಾದಗಳಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರ ಭಾಗವಹಿಸುವಿಕೆಯನ್ನು ಗುರುತಿಸುವುದು • ಓದಿದ ಸಾಹಿತ್ಯದ ಸಾರಾಂಶ ಮಂಡನೆ ಮಾಡುವ ವಿಧಾನ ಅವಲೋಕಿಸಿ ದಾಖಲಿಸಿಕೊಳ್ಳುವುದು • ವರ್ಕ್‌ಶೀಟ್‌ಗಳ ಮೂಲಕ ಚಟುವಟಿಕೆ ನೀಡಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡುವುದು • ಪ್ರಶ್ನಾವಳಿಗಳ ಮೂಲಕ ಅರ್ಥೈಸಿಕೊಳ್ಳುವಿಕೆ ತಿಳಿಯುವುದು • ಪ್ರಶ್ನೆಪತ್ರಿಕೆ ಮೂಲಕ ಪರೀಕ್ಷೆಗಳು

		ತರಗತಿ ಚರ್ಚೆಗಳ ಮೂಲಕ ವಿವಿಧ ನೋಟಗಳು, ಅಭಿಪ್ರಾಯಗಳ ವಿನಿಮಯ. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ಸ್ವಂತವಾಗಿ ಚಿಂತಿಸಿ, ತಮ್ಮ ಚಿಂತನೆಯನ್ನು ಮುಕ್ತವಾಗಿ ಹಂಚಿಕೊಳ್ಳುವ ಅವಕಾಶ, ಪರಿಸ್ಥಿತಿಗನುಗುಣವಾಗಿ ಸಂಪನ್ಮೂಲಗಳ ಬದಲಾವಣೆ		
೨	**ಆಲಿಸುವಿಕೆ ಮತ್ತು ಮೌಖಿಕ ಅಭಿವ್ಯಕ್ತಿ**	೨.೨ ಭಾಷಾ ಗಳಿಕೆ ಮತ್ತು ಭಾಷಾ ಕಲಿಕೆಯ ವ್ಯತ್ಯಾಸ ಹಾಗೂ ಮಕ್ಕಳ ಕಲಿಕೆಯಲ್ಲಿ ಇವುಗಳ ಪಾತ್ರ ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವುದು ೨.೨ ವಿದ್ಯಾರ್ಥಿಗಳ ಶಕ್ತಿ ಮತ್ತು ಪ್ರತಿಕೂಲ ಸ್ಥಿತಿಗಳಿಗನುಗುಣವಾಗಿ ಕಲಿಕಾ ಅನುಭವಗಳನ್ನು ಸಂಘಟಿಸುವ ಅಗತ್ಯತೆ ತಿಳಿಯುವುದು ೨.೩ ಭಾಷಾ ಕಲಿಕೆಯಲ್ಲಿ ಆಟಗಳ ಪಾತ್ರ ಅರಿಯುವುದು	• ಸ್ವ–ಅಧ್ಯಯನ • ಮಾಧ್ಯಮಗಳ ಬಳಕೆಯಿಂದ ಆಲಿಸುವಿಕೆ: ಧ್ವನಿ/ದೃಶ್ಯ ಮುದ್ರಣ • ಸೆಮಿನಾರ್ ಶೈಲಿಯಲ್ಲಿ ಮಂಡನೆ • ಚರ್ಚೆ • ನಾಟಕ • ಕವನ ವಾಚನ • ಕಥಾ ನಿರೂಪಣೆ ಆಲಿಸುವಿಕೆ ಮತ್ತು ಅಭಿವ್ಯಕ್ತಿಗೊಳಿಸಲು ತೊಂದರೆ ಪಡುವ ವಿದ್ಯಾರ್ಥಿಗಳ ಶಕ್ತಿ ಮತ್ತು ಪ್ರತಿಕೂಲತೆಗಳು ಹಾಗೂ ಇದರಿಂದ ವಿದ್ಯಾರ್ಥಿಗಳ ಮೇಲೆ ಆಗಬಹುದಾದ ಪರಿಣಾಮಗಳ ಬಗ್ಗೆ ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ೫–೬ ಜನರ ಗುಂಪಿನಲ್ಲಿ ಚರ್ಚಿಸುವುದು ವಿವಿಧ ವಿದ್ಯಾರ್ಥಿಗಳ (ಕೇಳಿಸಿಕೊಳ್ಳುವಲ್ಲಿ ತೊಂದರೆ, ಸಂವಹನ ಕೌಶಲ ಕೊರತೆ, ಏಕಾಗ್ರತೆ ಕೊರತೆ, ಅನ್ಯ ಭಾಷಿ, ಇತ್ಯಾದಿ) ಅಗತ್ಯತೆಗಳು ಹಾಗೂ ಅವುಗಳ ಪೂರೈಕೆ ಬಗ್ಗೆ ಸೂಕ್ತ ಮಾಹಿತಿಯನ್ನು ಪ್ರಶಿಕ್ಷಕರು ಒದಗಿಸುವ ವ್ಯವಸ್ಥೆ ಮಾಡಬೇಕು. ಉದಾ: ವೀಡಿಯೋ ಚಿತ್ರ/ಸಾಹಿತ್ಯ/ನಿರ್ದಿಷ್ಟ ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳೊಂದಿಗೆ ಸಂಪರ್ಕ, ಇತ್ಯಾದಿ. ಉದಾ: ಶ್ರವಣ ದೋಷವುಳ್ಳ ಮಕ್ಕಳಿದ್ದರೆ, ಅವರನ್ನು ತರಗತಿಯಲ್ಲಿ ಶಿಕ್ಷಕರ ಮುಖ ಹಾಗೂ ಅವರ ಹಾವಭಾವವನ್ನು ಗಮನಿಸಲು	• ಪ್ರಶಿಕ್ಷಕರು ಪ್ರತೀ ಚಟುವಟಿಕೆಗೂ ಔಭಜಾಡಿತುಟಿಣಾಟಿ ,ಭ್ಟಿಜಜಣಟಜ ತಯಾರಿ ಮಾಡಿಟ್ಟುಕೊಂಡು ಅದರ ಪ್ರಕಾರವಾಗಿ ಮೌಲ್ಯಾಂಕನ ಮಾಡಬೇಕು. • ಕಂಪ್ಯೂಟರ್ ಬಳಸಿ/ಮೊಬೈಲ್ ಬಳಸಿ ತಮ್ಮ ಮಂಡನೆಯ ಧ್ವನಿ/ದೃಶ್ಯ ಮುದ್ರಣ ಮಾಡಿಕೊಂಡು ವೀಕ್ಷಿಸಿ ಸ್ವ – ಮೌಲ್ಯಮಾಪನ • ವಿವಿಧ ರೀತಿಯ ಮಂಡನೆಗೆ ಪ್ರಶಿಕ್ಷಕರು ಸೂಕ್ತ ರೂಬ್ರಿಕ್ಸ್ ತಯಾರಿಸಿ ಮೌಲ್ಯ ಮಾಪನ ಮಾಡಬೇಕು • ಇತರರ ಸೆಮಿನಾರ್ ಶೈಲಿಯ ಮಂಡನೆ ಮತ್ತು ಚರ್ಚೆಗಳಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆ • ಕಥಾ ನಿರೂಪಣೆ – ಕಥೆಯ ಆಯ್ಕೆ, ನಿರೂಪಣಾ ಶೈಲಿಯ ಆಯ್ಕೆ, ಸಂಪನ್ಮೂಲ ತಯಾರಿಕೆ, ನಿರೂಪಣೆ ಮತ್ತು ಚಿಂತನೆ – ಸಹಪಾಠಿಗಳ ಹಿಮ್ಮಾಹಿತಿ – ಇದರಿಂದ ಕಲಿಯುವ/ನಿರೂಪಣೆಯನ್ನು ಉತ್ತಮ ಪಡಿಸಿಕೊಳ್ಳುವ ಅವಕಾಶ **ಅವಲೋಕನದ ಮಾನದಂಡಗಳನ್ನು ಮೊದಲಿಗೇ ಗುರುತಿಸಿಕೊಳ್ಳುವುದು**

			ಅನುವಾಗುವ ಕಡೆ ಕೂರಿಸಬೇಕು. ಅವರಿಗೆ ಶ್ರವಣೋಪಕರಣ ಅಳವಡಿಸಿರಬೇಕು, ಮಾತಿನ ಓದುವಿಕೆಗೆ ಅನುವುಮಾಡಿಕೊಡಬೇಕು ಹಾಗೂ ಕಥೆ ಹೇಳುವಾಗ ಚಿತ್ರಪಟಗಳನ್ನು/ದೃಶ್ಯ ಮಾಧ್ಯಮಗಳನ್ನು ಹೆಚ್ಚು ಬಳಸಬೇಕು. ಪರ್ಯಾಯ ಸಂವಹನ ಮಾರ್ಗದ ಮೂಲಕ ಅವರ ಅಭಿವ್ಯಕ್ತಿಗೆ ಅವಕಾಶ ಮಾಡಿಕೊಡಬೇಕು. ಉದಾ; ಸಂಜ್ಞೆ, ಬರವಣಿಗೆ, ಸಂವಹನ ಉಪಕರಣಗಳ ಬಳಕೆ ಇತ್ಯಾದಿಗಳ ಮೂಲಕ	
೩	**ಓದು ಮತ್ತು ಬರಹ**	೩.೧ ಓದು ಮತ್ತು ಬರಹಕ್ಕೆ ಇರುವ ಸಂಬಂಧ ತಿಳಿಯುವುದು ೩.೨ ಕಲಿಕೆ ಮತ್ತು ಓದು ಯಾವ ರೀತಿ ಪಾರಸ್ಪರಿಕ ಸಂಬಂಧ ಹೊಂದಿವೆ ಎಂದು ಅರಿಯುವುದು ೩.೩. ಓದುವ, ಬರೆಯುವ ಕೌಶಲಗಳನ್ನು ಮಕ್ಕಳಲ್ಲಿ ಬೆಳಿಸುವ ವಿಧಾನಗಳನ್ನು ತಿಳಿಯುವುದು.	• ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ ಲೇಖನಗಳ ವಿವಿಧ ಶೈಲಿಯ ಮಂಡನೆಗೆ ಪ್ರೋತ್ಸಾಹ, ಸಹಕಾರ • ಸಂಬಂಧಿತ ತಾತ್ವಿಕ ಲೇಖನಗಳ ಓದು, ಚರ್ಚೆ • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ತಮ್ಮ ಅನುಭವಗಳನ್ನು ಬರೆದು, ತಮ್ಮ ಬರವಣಿಗೆಯನ್ನು ತಾವು ಓದುಗರಾಗಿ ಓದಿ ಸ್ವ–ವಿಮರ್ಶೆಗೊಳಪಡಿಸಿ ತಿದ್ದುಪಡಿ ಮಾಡುತ್ತಾರೆ. ಪರಿಷ್ಕೃತ ಪ್ರತಿಯನ್ನು ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಹಂಚಿಕೊಂಡು ಅಭಿಪ್ರಾಯ ತಿಳಿಯುತ್ತಾರೆ. ಪ್ರಶಿಕ್ಷಕರ ಮಾರ್ಗದರ್ಶನದೊಂದಿಗೆ ತಿದ್ದುಪಡಿಗಳನ್ನು ಮಾಡಿಕೊಳ್ಳಬೇಕು • ಭಾಷಾ ಆಟಗಳು – ಪ್ರಶಿಕ್ಷಕರು ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ಆಯೋಜಿಸುವುದು – ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ಶಾಲಾ ಮಕ್ಕಳಿಗೆ ಆಯೋಜಿಸುವುದು. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ಚರ್ಚೆ, ಕರಡು ಪ್ರತಿ, ಸಂಪಾದಿಸುವುದು, ತಿದ್ದುವುದು, ಮರು ವಿನ್ಯಾಸಗೊಳಿಸುವುದು, ಪ್ರಕಟಿಸುವುದು/ಪ್ರದರ್ಶಿಸುವುದು ಇಂತಹ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಭಾಗವಹಿಸಲು ಅವಕಾಶ ಮಾಡಿ ಕೊಡಬೇಕು. (Inputs from art education, ICT) **Class talk** ೭. ನಿರೂಪಣಾ ಸಾಹಿತ್ಯಕ್ಕೂ ಮತ್ತು ವಿವರಣಾ ಸಾಹಿತ್ಯಕ್ಕೂ ಇರುವ ವ್ಯತ್ಯಾಸ	೧. ಓದಿದ ಸಾಮಗ್ರಿಗಳ ಮೇಲೆ ವರ್ಕ್‌ಶೀಟ್ ೨. ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆಯ ಅವಲೋಕನ ೩. ಭಾಷಾ ಆಟಗಳಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆಯ ಮೌಲ್ಯಮಾಪನ ೪. ವಿದ್ಯಾರ್ಥಿ ಶಿಕ್ಷಕರ ಅಭಿವ್ಯಕ್ತಿ ಗಮನಿಸಿ ಮೌಲ್ಯಮಾಪನ ೫. ಲಿಖಿತ ಪರೀಕ್ಷೆಗಳು **ಅವಲೋಕನದ ಮಾನದಂಡಗಳನ್ನು ಮೊದಲಿಗೇ ಗುರುತಿಸಿಕೊಳ್ಳುವುದು**

೪	**ಭಾಷಾ ಶಿಕ್ಷಣ ಶಾಸ್ತ್ರ**	೪.೧ ಭಾಷೆಯ ಕಲಿಕೆ ಹೇಗಾಗುತ್ತದೆ ಎನ್ನುವ ಅರಿವು ಬೆಳೆಸಿಕೊಳ್ಳುವುದು ೪.೨ ಮನೆಭಾಷೆಯಿಂದ ಶಾಲೆಯ ಭಾಷೆಗೆ ಹೊಂದಿಕೊಳ್ಳಲು ಮಗುವಿಗೆ ಹೇಗೆ ಸಹಾಯ ಮಾಡಬೇಕು ಎಂದು ಚರ್ಚಿಸುವುದು ೪.೩ ಭಾಷಾ ಸಮೃದ್ಧ ತರಗತಿಯನ್ನು ಸಂಘಟಿಸುವ ವಿಧಾನಗಳನ್ನು ತಿಳಿಯುವುದು.	• ವಿಮರ್ಶಾತ್ಮಕ ಓದುವಿಕೆ (critical reading) ಮತ್ತು ಚರ್ಚೆ – ಓದುವ ದಾರಿಗಳ ಬಗ್ಗೆ • ಸಣ್ಣ ಗುಂಪು ಚರ್ಚೆ (೧) ತ್ವರಿತ ಸಾಕ್ಷರತೆಯ ಮಹತ್ವ (೨) ತತ್ವಾಂಶಗಳ ಅರಿವು (೩) Authentic ಸಾಮಗ್ರಿಗಳ ಶೋಧನೆ (೪) ತಮ್ಮ ಅನುಭವಗಳ ಬಗ್ಗೆ ಚಿಂತನೆ (೫) ಮನೆ ಭಾಷೆ, ಶಾಲೆ ಭಾಷೆ ಕೆಲವೊಂದು ಭಾಷಾ ತರಗತಿಗಳ ಉದಾಹರಣೆ ತೆಗೆದುಕೊಂಡು (ಕಥೆ, ಶಿಶು ಗೀತೆ, ಹಾಡು, ಕಿರುನಾಟಕ, ಇತ್ಯಾದಿ) ಈ ತರಗತಿಗಳಲ್ಲಿ ಎಲ್ಲ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನೂ ಕಲಿಕಾ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ಭಾಗವಹಿಸುವಂತೆ ಮಾಡುವಲ್ಲಿ ಎದುರಾದ ಸಮಸ್ಯೆಗಳು ಹಾಗೂ ಅದರ ಪರಿಹಾರೋಪಾಯಗಳ ಬಗ್ಗೆ ಶಿಕ್ಷಕರೊಂದಿಗೆ ಚರ್ಚಿಸಲು ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ಅವಕಾಶ ಮಾಡಿಕೊಡುವುದು. ಸೂಕ್ತ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ, ಸಾಧ್ಯವಾದಲ್ಲಿ ಪರಿಣಿತರೊಂದಿಗೆ ಸಂವಾದ ಏರ್ಪಡಿಸುವುದು.	• ಸಂಪನ್ಮೂಲಗಳ ಗುಣಮಟ್ಟದ ಮೌಲ್ಯಮಾಪನ • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ ಚಿಂತನೆ ಮತ್ತು ಭಾಗವಹಿಸುವಿಕೆ • ವರ್ಕ್‌ಶೀಟ್ **ಗುಣಮಟ್ಟದ ಮೌಲ್ಯಮಾನಕ್ಕೆ ಅಗತ್ಯ ದರ್ಜಾಮಾಪನಿ ತಯಾರಿಸುವುದು**
೫	**ಭಾಷಾ ತರಗತಿಯಲ್ಲಿ ಒಳಗೊಳ್ಳುವಿಕೆ**	೫.೧ ಒಳಗೊಳ್ಳುವಿಕೆಯ ಪರಿಕಲ್ಪನೆ ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ೫.೨ ಭಾಷಾ ತರಗತಿಗಳಲ್ಲಿ ಎಲ್ಲ ಮಕ್ಕಳನ್ನೂ ಒಳಗೊಳ್ಳುವಂತಹ ಕಲಿಕಾ ಅನುಭವಗಳನ್ನು ಸಂಘಟಿಸುವ ವಿಧಾನಗಳನ್ನು ತಿಳಿಯುವುದು	• ತರಗತಿಯಲ್ಲಿ ಒಳಗೊಳ್ಳುವಿಕೆಯ ಕುರಿತಾದ ಲೇಖನಗಳ ಪರಿಶೀಲನೆ –ಚರ್ಚೆ • ಸಂಪನ್ಮೂಲ ಸಾಮಗ್ರಿಗಳ ಅಮೂಲಾಗ್ರ ಪರಿಶೀಲನೆ, ಚಿಂತನೆ • ಕಲೆ ಮತ್ತು ತಂತ್ರಜ್ಞಾನದ ಸಹಾಯದಿಂದ ಹೊಸ ಸಾಮಗ್ರಿಗಳ ರಚನೆ ಮತ್ತು ಶಿಕ್ಷಕರೊಂದಿಗೆ ಇದರ ಪ್ರಯೋಗ ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ತಮ್ಮ ಹಿಂದಿನ ಶಾಲಾ ವಿದ್ಯಾರ್ಥಿ ಜೀವನದ ಅನುಭವವನ್ನಾಧರಿಸಿ ಪ್ರಸ್ತುತ ಭಾಷಾ ತರಗತಿಗಳು ವಿವಿಧ ಹಿನ್ನೆಲೆಯಿಂದ ಬಂದಂತಹ ಮಕ್ಕಳೆಲ್ಲರ ಅಗತ್ಯಗಳಿಗೆ ಸ್ಪಂದಿಸುವಂತಹ ವಾತಾವರಣವನ್ನು ಸೃಷ್ಟಿಸುವ ಬಗ್ಗೆ ತಮ್ಮ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಚರ್ಚಿಸುವುದು.	- ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ ಅರಿವಿನ ಬಗ್ಗೆ ಪರೀಕ್ಷೆ (ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ) - ಗುಂಪಿನಲ್ಲಿ ಅವರ ಭಾಗವಹಿಸುವಿಕೆ, ಮುಂದಾಳತ್ವ (initiative not leadership), ಶಿಕ್ಷಕರೊಡನೆ ಸಹಭಾಗಿತ್ವ (collaboration) ಗಳನ್ನು ಗಮನಿಸಿ ದಾಖಲಿಸಬೇಕು. ಚೆಕ್ ಲಿಸ್ಟ್ ತಯಾರಿಸಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡಬಹುದು.

			ಸಂವಹನ ಕೌಶಲದಲ್ಲಿ ತೊಂದರೆಯುಳ್ಳ ವಿದ್ಯಾರ್ಥಿಗಳಿಗಾಗಿ ಸಂವಹನ ಸಾಮಗ್ರಿ (ಉದಾ; ಸಂವಹನ ಚಾರ್ಟ್/ಹಲಗೆ, ಚಿತ್ರಸಂಪುಟ) ತಯಾರಿಸಿ ಭಾಷಾ ತರಗತಿಯಲ್ಲಿ ಬಳಸುವುದು ಹಾಗೂ ಅದರ ಸೂಕ್ತತೆ ಬಗ್ಗೆ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಚರ್ಚಿಸುವುದು **Class talk** • ಮಕ್ಕಳನ್ನೇ ಸಂಪನ್ಮೂಲವಾಗಿ ಪರಿಗಣಿಸುವುದು • ಮಕ್ಕಳ ತರಗತಿಯ ಮಾತುಕತೆಯನ್ನು ಸಂಪನ್ಮೂಲವಾಗಿ ಪರಿಗಣಿಸುವುದು • ಡಯಾಗ್ನಾಸ್ಟಿಕ್ ಪರೀಕ್ಷೆ ಮತ್ತು ಮಕ್ಕಳ ಅರಿವಿನ ಮೌಲ್ಯ ಮಾಪನ – ಇವೆರಡರ ನಡುವಿನ ವ್ಯತ್ಯಾಸ (difference between diagnostic test and assessing children understanding)	ವಿಶೇಷ ಕಲಿಕೋಪಕರಣದ ತಯಾರಿಕೆ, ಬಳಕೆ ಮತ್ತು ಅದರ ಸೂಕ್ತತೆ ಬಗ್ಗೆ ವರದಿ. ಉಪಕರಣದ ಸಮಂಜಸತೆ ಗಮನಿಸಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡುವುದು

ಪ್ರಾಯೋಗಿಕ

ಕ್ರ ಸಂ	ಘಟಕಗಳು	ಪ್ರಾಯೋಗಿಕ
೧	**ಸಾಹಿತ್ಯ**	• ಜನಪ್ರಿಯ ಟಿ.ವಿ ಕಾರ್ಯಕ್ರಮಗಳು, ಪತ್ರಿಕಾ ಲೇಖನ (ಸಮಾಚಾರ ಹಾಗೂ ಚಿಂತನಾ ಲೇಖನಗಳು, ಕಥೆ, ಕವನ) ಮತ್ತು ಸಿನಿಮಾ ಕಥೆಗಳ ಬಗ್ಗೆ ಚರ್ಚೆ • ಸಣ್ಣ ಕಥೆ, ಕವನ, ಪ್ರಬಂಧ – ಇವುಗಳ ಓದು ಮತ್ತು ಹಂಚಿಕೊಳ್ಳುವಿಕೆ (ಈ ಎರಡೂ ಚಟುವಟಿಕೆಗಳನ್ನು, Theory ಗೆ ಮುಂಚಿತವಾಗಿ ಮಾಡುವುದು • ಶಿಶು ಸಾಹಿತ್ಯ ಸಮೀಕ್ಷೆ – i) ಗ್ರಂಥಾಲಯ ii) ಪ್ರಕಾಶನ ಮಾರುಕಟ್ಟೆ • ಸ್ಥಳೀಯ ಸಂಪನ್ಮೂಲಗಳ ಹುಡುಕಾಟ – (ಕಥೆ, ಕವನ, ಶಿಶು ಪ್ರಾಸ ಪದ್ಯಗಳು, ಅಭಿನಯ ಗೀತೆಗಳು, ಕಥನ ಗೀತೆಗಳು, ನಾಟಕಗಳು) • ಸ್ಥಳೀಯ ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳ (ಕಲಾವಿದರ) ಸಂದರ್ಶನ/ತನ್ಮೂಲಕ ಕಲಿಕೆ • ** ಸಮೀಕ್ಷೆ, ಸಂಪನ್ಮೂಲಗಳ ಹುಡುಕಾಟ ಮತ್ತು ಸಂದರ್ಶನಗಳನ್ನು, ಇದೇ ವರ್ಷದಲ್ಲಿ, ಯಾವಾಗ ಬೇಕಾದರೂ ಅಗತ್ಯ, ಅನುಕೂಲಕ್ಕನುಗುಣವಾಗಿ ನಡೆಸುವುದು*
೨	**ಆಲಿಸುವಿಕೆ ಮತ್ತು ಮೌಖಿಕ ಅಭಿವ್ಯಕ್ತಿ**	• ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ಸೂಚನೆಗಳನ್ನು ಗಮನವಿಟ್ಟು ಆಲಿಸಿ, ಅರ್ಥೈಸಿಕೊಂಡು ಅದನ್ನು ಪಾಲಿಸುವಂತಹ ಭಾಷಾ ಆಟಗಳನ್ನು ಆಡಬೇಕು. • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ಸಮಂಜಸವಾದ ಗಂಭೀರ ವಿಷಯದ ಬಗ್ಗೆ ಸಿ.ಡಿ ಆಲಿಸಿ ಅಥವಾ ಡಾಕ್ಯುಮೆಂಟರಿ ಚಿತ್ರವನ್ನು ನೋಡಿ ಅದರ ಆಧಾರದ ಮೇಲೆ ಚರ್ಚೆ ನಡೆಸಬೇಕು/ ಗ್ರಹಿಕೆಯ ಮೌಲ್ಯಮಾಪನಕ್ಕೆ ಪರೀಕ್ಷೆ ಬರೆಯಬೇಕು. • ೧ರಿಂದ ೪ನೇ ತರಗತಿಯ ಮಕ್ಕಳಿಗೆ ಕಥೆ ಹೇಳುವುದರ ಅವಶ್ಯಕತೆಯ ಬಗ್ಗೆ ಓದಿ, ಅದನ್ನು ಚರ್ಚಿಸಬೇಕು. ಪ್ರತಿಯೊಬ್ಬರೂ ಒಂದು ಕಥೆಯನ್ನು ಆಯ್ಕೆ ಮಾಡಿಕೊಂಡು ತರಗತಿಯಲ್ಲಿ ನಿರೂಪಿಸಬೇಕು. • ಪ್ರಶಿಕ್ಷಕರು ಆಯ್ಕೆ ಮಾಡಿದೊಂದು ವಿಷಯವನ್ನು ಸೆಮಿನಾರ್ ಶೈಲಿಯಲ್ಲಿ ಪ್ರಸ್ತುತ ಪಡಿಸಬೇಕು. • ತರಗತಿಯಲ್ಲಿ ಕಥೆ ಶಿಶು ಗೀತೆ, ಹಾಡು, ಕಿರುನಾಟಕ ಇವನ್ನು ನಿರೂಪಿಸಬೇಕು. • ಆಲಿಸುವ ಮತ್ತು ಮಾತನಾಡುವ ಅನೇಕ ಆಟಗಳನ್ನು ತರಗತಿಯಲ್ಲಿ ಬಳಕೆ ಮಾಡಿ ಅವುಗಳ ಸಮರ್ಪಕತೆಯ ಬಗ್ಗೆ ಚಿಂತನೆ ನಡೆಸಿ ಸಂಪನ್ಮೂಲಗಳ ಸೂಕ್ತತೆಯನ್ನು ವಿಶ್ಲೇಷಿಸಬೇಕು. ಇಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯ ಮಾತು ಸಂಪನ್ಮೂಲವಾದದ್ದನ್ನು ವಿಶೇಷವಾಗಿ ಗಮನಿಸಿ, ಅದನ್ನು ಹಂಚಿಕೊಳ್ಳಬೇಕು. ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿ ಮಕ್ಕಳ ಆಟವನ್ನು ಗಮನಿಸಿ, ವಿವರವಾಗಿ ದಾಖಲಿಸಬೇಕು – ದಾಖಲೆಯನ್ನು ನೋಡಿ ಭಾಷಾ ಉಪಯೋಗ, ವರ್ತನೆ, ವಿವಾದ ಪರಿಹಾರ, ಮಕ್ಕಳು ಉಪಯೋಗಿಸಿದ ಜನಪದ ಹಾಡು, ಆಟ, ಜನಪ್ರಿಯ ಮಾಧ್ಯಮಗಳ (TV, ಸೀರಿಯಲ್, ಸಿನೆಮಾ) ಪ್ರಭಾವ ಇತ್ಯಾದಿಗಳನ್ನು ವಿಶ್ಲೇಷಿಸಬೇಕು.

೩	**ಓದು ಮತ್ತು ಬರಹ**	• ವಿವಿಧ ರಿತಿಯ ಪ್ರಕಾರಗಳನ್ನು 'ಅರ್ಥೈಸಿ'ಕೊಳ್ಳುವುದಕ್ಕಾಗಿ ಓದುವುದು – ತೀರ್ಮಾನಿಸುವುದು (inference), ವಿಶ್ಲೇಷಿಸುವುದು (Analysis) ಮತ್ತು ವ್ಯಾಪ್ತಿಯನ್ನು ಮೀರಿ ಅರ್ಥೈಸಿಕೊಂಡಿದ್ದು (extrapolation) – ಈ ಅಂಶಗಳನ್ನು ತಾವು ಓದಿದ ಕಥೆ, ಕವನ ಇತ್ಯಾದಿಗಳ ಉದಾಹರಣೆಗಳಿಂದ ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುತ್ತಾರೆ. • ಓದನ್ನು ಪರಾಮರ್ಶೆಯ ಉಪಕರಣವಾಗಿ ಉಪಯೋಗಿಸುವುದು – ನಿಘಂಟು, ವಿಶ್ವಕೋಶ ಮತ್ತು ಅಂತರ್ಜಾಲದ ಬಳಕೆ • ಶಿಶು ಸಾಹಿತ್ಯ ಸಮೀಕ್ಷೆಯಿಂದ ತಮಗೆ ದೊರಕಿದ ಸಾಮಗ್ರಿಯಲ್ಲಿ ಸೂಕ್ತವಾದುದನ್ನು ಮಕ್ಕಳ ಓದಿಗೆ ಆಯ್ಕೆ ಮಾಡಿ, ಓದನ್ನು ಕಲಿಸಲು ಬಳಸುತ್ತಾರೆ. ಉದ್ದೇಶ ಸಫಲತೆಯನ್ನು ಅರಿಯಲು ಮೌಲ್ಯಮಾಪನ ಮಾಡಿ, ತಮ್ಮ ಆಯ್ಕೆಯನ್ನು ವಿಮರ್ಶೆಗೆ ಒಳಪಡಿಸಿಕೊಳ್ಳುತ್ತಾರೆ • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ತಾವು ಅಭ್ಯಾಸ ಬೋಧನೆಗೆ ಹೋದ ಸಮಯದಲ್ಲಿ ತರಗತಿ ಗ್ರಂಥಾಲಯ ಸ್ಥಾಪಿಸಬೇಕು. ಮಕ್ಕಳಿಗೆ ಪುಸ್ತಕಗಳನ್ನು ನೋಡಲು, ಓದಲು ಮುಕ್ತ ಸಮಯ ಮತ್ತು ಸ್ಥಳಾವಕಾಶ ನೀಡಿ, ಅವರು ತೆಗೆದುಕೊಂಡು ಓದಿದ ಪುಸ್ತಕಗಳ ಪ್ರಕಾರ, ಗುಣಮಟ್ಟ, ನಿರೂಪಣೆ, ಭಾಷಾ ಶೈಲಿಗಳನ್ನು ಗಮನಿಸಬೇಕು. • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳಿಗೆ ವಿವಿಧ ರೀತಿಯ ಬರವಣಿಗೆಗೆ ಅವಕಾಶ ನೀಡುವುದು – ಅರ್ಜಿಗಳು, ದೂರು, ಆಹ್ವಾನ ಪತ್ರಿಕೆ, ಸರ್ಕ್ಯುಲರ್, ನೋಟಿಸ್ ಇತ್ಯಾದಿ. • ಸ್ವತಂತ್ರ ಮತ್ತು ಸೃಜನಾತ್ಮಕ ಬರವಣಿಗೆಗೆ ಅವಕಾಶ ನೀಡಲು ಆಯೋಜಿಸಿ, ತರಗತಿಯಲ್ಲಿ ಪ್ರಯೋಗಿಸಿ, ಆ ಬರವಣಿಗೆಗಳನ್ನು ತಮ್ಮ ಸಹಪಾಠಿಗಳೊಡನೆ ಹಂಚಿಕೊತ್ತಾರೆ • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು 'ದಿನಚರಿ' ಬರೆಯಬೇಕು; ವ್ಯವಸ್ಥಿತ ದಾಖಲೆಯನ್ನು ಇಡುಬೇಕು (ತಾವು ಓದಿದ ಅಥವಾ ನೋಡಿದ ವಸ್ತು ವಿಷಯಕ್ಕೆ ಪ್ರತಿಕ್ರಿಯೆಯನ್ನು ದಾಖಲಿಸುತ್ತಾರೆ. ಇದಲ್ಲದೆ, ಅಭ್ಯಾಸ ಬೋಧನೆ ಸಮಯವನ್ನು ಆದ ಪ್ರಸಂಗಗಳನ್ನು ಸಹ ದಾಖಲಿಸುತ್ತಾರೆ)* * ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳ ಸ್ವ – ಅನುಭವ ಲೇಖನಗಳನ್ನು ಮತ್ತು ಸೃಜನಶೀಲ ಬರವಣಿಗೆಯನ್ನು (ಕಥೆ, ಕವನ ಇತ್ಯಾದಿಗಳನ್ನು) Foundations of Education ತರಗತಿಯಲ್ಲಿ ಚರ್ಚೆಗೆ ಬಳಸಬೇಕು
೪	**ಭಾಷಾ ಶಿಕ್ಷಣ ಶಾಸ್ತ್ರ**	• ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು, ಸಮೀಕ್ಷೆಯಿಂದ ದೊರೆತ ಒಂದು ಕಥೆಯನ್ನು ಆರಿಸಿಕೊಳ್ಳುತ್ತಾರೆ. ಈ ಕಥಾ ನಿರೂಪಣೆಗೆ ಅಗತ್ಯವಾದ ಸಾಮಗ್ರಿಗಳನ್ನು ತಯಾರಿಸಿಕೊಂಡು, ಅದರ ಸುತ್ತ ಚಟುವಟಿಕೆಗಳನ್ನು ಯೋಜಿಸಬೇಕು • ಈ ಕಥೆಗೆ ಬೇಕಾದ ಓದುವ ಸಾಮಗ್ರಿಯನ್ನು ಹುಡುಕಬೇಕು/ತಯಾರಿಸಬೇಕು (Big Book concept) • ಪ್ರಶಿಕ್ಷಣಾರ್ಥಿಗಳು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಹಾಡುವುದಕ್ಕೆ, ಕುಣಿಯುವುದಕ್ಕೆ, ಚಿತ್ರ ಬರೆಯುವುದಕ್ಕೆ ಮತ್ತು ಕರಕುಶಲತೆಗೆ ಅವಕಾಶ ಮಾಡಿಕೊಡಬೇಕು (ಸೂಕ್ತವಾದವುಗಳನ್ನು ಮಾತ್ರ) (art education) • ತರಗತಿಯ ವೈವಿಧ್ಯತೆಯು (ಕಲಿಕಾ, ಭಾಷಾ, ಜಾತಿ, ಲಿಂಗ) ಬಗ್ಗೆ ಚಿಂತಿಸಿ, ಅದನ್ನು ತಮ್ಮ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಮತ್ತು ಪ್ರಶಿಕ್ಷಕರೊಂದಿಗೆ ಚರ್ಚಿಸಬೇಕು. ಇದರಲ್ಲಿ ಪ್ರಮುಖವಾಗಿ ಎಲ್ಲ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನೂ ಕಲಿಕಾ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ಸೇರಿಸಿಕೊಳ್ಳುವುದರಲ್ಲಿ ಎದುರಾದ ಸವಾಲುಗಳು ಮತ್ತು ಅದರ ಪರಿಹಾರೋಪಾಯಗಳ ಬಗ್ಗೆ ಮಾತನಾಡಬೇಕು (inclusive education)

		• ಶಾಲಾ ಮಕ್ಕಳು, ಅವರ ಬಗ್ಗೆ/ ಕುಟುಂಬದ ಬಗ್ಗೆ/ ಮನೆಯ ಬಗ್ಗೆ/ ಊಟ ತಿಂಡಿಯ ಬಗ್ಗೆ/ ಅವರು ನೋಡುವ ಟಿವಿ ಕಾರ್ಯಕ್ರಮಗಳ ಬಗ್ಗೆ ಬರೆಯಲು ಪ್ರೋತ್ಸಾಹ ನೀಡಬೇಕು ತರಗತಿಯ ವೈವಿಧ್ಯತೆಯು (ಕಲಿಕಾ, ಭಾಷೆ, ಜಾತಿ, ಲಿಂಗ) ಬಗ್ಗೆ ಚಿಂತಿಸಿ, ಅದನ್ನು ತಮ್ಮ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಮತ್ತು ಪ್ರಶಿಕ್ಷಕರೊಂದಿಗೆ ಚರ್ಚಿಸಬೇಕು. ಇದರಲ್ಲಿ ಪ್ರಮುಖವಾಗಿ ಎಲ್ಲ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನೂ ಕಲಿಕಾ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ಸೇರಿಸಿಕೊಳ್ಳುವುದರಲ್ಲಿ ಎದುರಾದ ಸವಾಲುಗಳು ಮತ್ತು ಅದರ ಪರಿಹಾರೋಪಾಯಗಳ ಬಗ್ಗೆ ಮಾತನಾಡಬೇಕು (inclusive education)
೫	**ಭಾಷಾ ತರಗತಿಯಲ್ಲಿ ಒಳಗೊಳ್ಳುವಿಕೆ**	• ಕರ್ನಾಟಕ ಸರ್ಕಾರ ತಯಾರಿಸಿರುವ ALP ಪರಿಹಾರ ಬೋಧನಾ ಸಾಮಗ್ರಿಗಳ ಅಧ್ಯಯನ • ತರಗತಿಯ ವೈವಿಧ್ಯತೆಯ ಬಗ್ಗೆ ಶಾಲಾ ಶಿಕ್ಷಕರೊಡನೆ ಸಮಾಲೋಚನೆ • ಶಾಲೆಗಳಲ್ಲಿ ಪ್ರಕ್ರಿಯೆಗಳನ್ನು ಗಮನಿಸಿ ಅದರಲ್ಲಿ ತಾವು ಅಳವಡಿಕೊಳ್ಳಬಹುದಾದ ಅಥವಾ ಬದಲಾಯಿಸಬಹುದಾದ ಅಂಶಗಳನ್ನು ಪಟ್ಟಿಮಾಡಿ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಚರ್ಚಿಸಬೇಕು. (inputs from art education, ICT and inclusive education) • ತರಗತಿಯ ವೈವಿಧ್ಯತೆಗೆ ಸೂಕ್ತವಾಗುವ ವಿಭಿನ್ನ ಸಂಪನ್ಮೂಲಗಳನ್ನು ತಯಾರಿಸಿ, ಉಪಯೋಗಿಸಿ ಅದರ ಸೂಕ್ತತೆಯನ್ನು ಅಧ್ಯಯನ ಮಾಡುವುದು (inputs from art education, ICT and inclusive education) · ಕರ್ನಾಟಕ ಸರ್ಕಾರ ತಯಾರಿಸಿರುವ ALP ಪರಿಹಾರ ಬೋಧನಾ ಸಾಮಗ್ರಿಗಳ ಅಧ್ಯಯನ · ತರಗತಿಯ ವೈವಿಧ್ಯತೆಯ ಬಗ್ಗೆ ಶಾಲಾ ಶಿಕ್ಷಕರೊಡನೆ ಸಮಾಲೋಚನೆ · ಶಾಲೆಗಳಲ್ಲಿ ಪ್ರಕ್ರಿಯೆಗಳನ್ನು ಗಮನಿಸಿ ಅದರಲ್ಲಿ ತಾವು ಅಳವಡಿಕೊಳ್ಳಬಹುದಾದ ಅಥವಾ ಬದಲಾಯಿಸಬಹುದಾದ ಅಂಶಗಳನ್ನು ಪಟ್ಟಿಮಾಡಿ ಸಹಪಾಠಿಗಳೊಂದಿಗೆ ಚರ್ಚಿಸಬೇಕು. (inputs from art education, ICT and inclusive education) · ತರಗತಿಯ ವೈವಿಧ್ಯತೆಗೆ ಸೂಕ್ತವಾಗುವ ವಿಭಿನ್ನ ಸಂಪನ್ಮೂಲಗಳನ್ನು ತಯಾರಿಸಿ, ಉಪಯೋಗಿಸಿ ಅದರ ಸೂಕ್ತತೆಯನ್ನು ಅಧ್ಯಯನ ಮಾಡುವುದು (inputs from art education, ICT and inclusive education)

Suggested Readings:

Kumar, K. (2007). *The child's language and the teacher*. India: NBT.

Kumar, K. (1988). *What is worth teaching.* New Delhi: Orient Longman. Chapter 3: Story telling- what is the use?

ಸಾರ್ವಜನಿಕ ಶಿಕ್ಷಣ ಇಲಾಖೆ, *ಪರಿಹಾರ ಬೋಧನೆ*, ಕರ್ನಾಟಕ ಸರ್ಕಾರ ಮತ್ತು ಅಜೀಂ ಪ್ರೇಮ್‌ಜೀ ಫೌಂಡೇಶನ್

ಹನೂರು ಕೇಷ್ಣಮೂರ್ತಿ, ಮುಷ್ತಾಕ್ ಬಾನು (ಸಂ) (2006). *ಸುವರ್ಣ ಕಥಾ ಸಂಕಲನ.* ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ *

ಜಿ. ಶಂ. ಪರಮಶಿವಯ್ಯ (ಸಂ) (1996). *ದಕ್ಷಿಣ ಕರ್ನಾಟಕದ ಜಾನಪದ ಕಥೆಗಳು*, ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ನವದೆಹಲಿ *

ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ (1997). *ಸಮಗ್ರ ಕಾವ್ಯ*, ಕಾಮಧೇನು, ಶೇಷಾದ್ರಿಪುರಂ, ಬೆಂಗಳೂರು *

Erikson, E. H. (1972). *Play and development.* New York: W.W. Norton.

ಸಾಹಿ, ಜೆ ಮತ್ತು ಸಾಹಿ, ಆರ್ (2009). *ಕಲಿಯಿಂದ ಕಲಿಕೆ.* ನವಕರ್ನಾಟಕ ಪ್ರಕಾಶನ.

Mason, J. M. & Sinha, S. (1992). Emerging literacy in the early childhood years. Applying a Vygotskian model of learning and development. In B. Spodek (Ed.) *Handbook of research on the education of young children.* New York: Macmillan, 137-150.

Sinha, S. (2000). *Acquiring literacy in schools. Redesigning curricula: A symposium on working a framework for school education*. September, 493.

Rothleen, L. & Meinbach A. M. (1991). *The Literature Connection: Using Children's Books in Classroom,* Tucson, USA: Good Year Books.

* ಈ ಶೀರ್ಷಿಕೆಗಳನ್ನು ಪ್ರಾತಿನಿಧಿಕವಾಗಿ ಕೊಡಲಾಗಿದೆ.

1.2.2 Mathematics

The aim of this course is to sensitise prospective mathematics teachers towards the processes in which mathematics learning takes place in children's mind. Theoretical knowledge and conceptual understanding of each unit is strengthened through a variety of practical activities suggested at the end of the unit.

1. **Shift in Perspective from previous curriculum**

- Focus is laid on pedagogical content knowledge rather than content enrichment.
- Mathematical processes are emphasized apart from the content of mathematics.
- Learning theories which highlight the children's conceptualizations of mathematics at lower primary level are included and given importance. This is a shift from the general psychological learning theories.
- Structuring constructivist learning environment is expected rather than simply planning lessons.
- Reading and reviewing materials, lecture cum demonstrations, group discussions, brainstorming, Project work, workshops, cooperative learning strategies and reflective techniques form the core transactional strategies for theory part of each unit.
- Meaningful practical activities are suggested for each unit to strengthen the theoretical knowledge, conceptual understandings and skill development.
- ICT mediation is expected to happen where ever possible while transacting each unit.
- Continuous and comprehensive evaluation using various formative and summative assessment techniques is expected.
- Inclusive education and art education are expected to permeate through all the activities.

2. Brief explanation of key terms

(a) Pedagogical content knowledge (PCK) :

PCK represents the blending of content and pedagogy into an understanding of how particular aspects of subject matter are organized, adapted, and represented for instruction. Pedagogical knowledge includes the **"how"** of teaching and Content knowledge is the **"what"** of teaching or the "subject-matter knowledge" (Lafayette, 1993). In Shulman's view, pedagogical content knowledge is a form of practical knowledge that is used by teachers to guide their actions in highly contextualized classroom settings. This form of practical knowledge entails, among other things:

(a) knowledge of how to structure and represent academic content for direct teaching to students;
(b) knowledge of the common conceptions, misconceptions, and difficulties that students encounter when learning particular content;
(c) knowledge of the specific teaching strategies that can be used to address student's learning needs in particular classroom circumstances.

According to Shulman, PCK includes "the most regularly taught topics in one's subject area, the most useful forms of representation of those ideas, the most powerful analogies, illustrations, examples, explanations, and demonstrations - in a word, the ways of representing and formulating the subject that make it comprehensible to others". It also includes an understanding of what makes the learning of specific topics easy or difficult, the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons.

Pedagogical content knowledge of mathematics is the knowledge which a teacher uses to transform and represent knowledge of mathematics for teaching (Wilson-1987). This refers to the ability of the teacher to transform content into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the learners. Based on this notion of pedagogical content knowledge, effective teachers can possess an in-depth knowledge of how to represent the subject matter to learners. This includes **knowledge of learners** and **knowledge of teaching.**

Knowledge of learners includes -

- Characteristics of learners with reference to their level of intellectual development.
- Knowledge of learner's learning strategies and learning process.

Knowledge of teaching includes -

- Knowledge of goals of elementary mathematics education.
- Knowledge of approaches to content of mathematics.
- Knowledge of ways of representing mathematics to elementary level children.
- Knowledge of use of various resources and materials.

(b) Revised Bloom's Taxonomy:

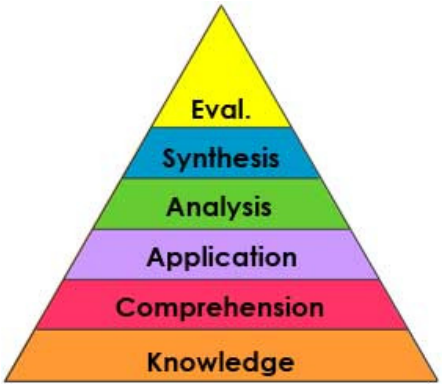
During the 1990's, a former student of Bloom's, Lorin Anderson *et al*, updated the taxonomy, hoping to add relevance for 21st century students and teachers. The changes occur in three broad categories: terminology, structure and emphasis.

Terminology - Basically, Bloom's six major categories were changed from noun to verb forms. Synthesis was renamed as creating and it replaced evaluation at the top position.

Bloom's Taxonomy

New Version (2001)

Note that the top two levels are essentially exchanged from the traditional to the new version.



Old Version (1956)

Remembering: can the student recall or remember the information?	Define, duplicate, list, memorize, recall, repeat, reproduce state
Understanding: can the student explain ideas or concepts?	Classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Applying: can the student use the information in a new way?	Choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
Analyzing: can the student distinguish between the different parts?	Appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.
Evaluating: can the student justify a stand or decision?	Appraise, argue, defend, judge, select, support, value, evaluate
Creating: can the student create new product or point of view?	Assemble, construct, create, design, develop, formulate, write.

Structural changes: Bloom's original cognitive taxonomy was a one-dimensional form. With the addition of products, the Revised Bloom's Taxonomy takes the form of a two-dimensional table.

- Knowledge Dimension (the kind of knowledge to be learned): Factual, Conceptual, Procedural and Meta-Cognitive.
- Cognitive Process Dimension (the process used to learn): Remembering, Understanding, Applying, Analysing, Evaluating, and Creating.

Changes in Emphasis: Emphasis is placed upon its use as a "more authentic tool for curriculum planning, instructional delivery and assessment.

(c) Zone of Proximal Development (ZPD):

Psychologist Lev Vygotsky proposed that children learn through interactions with their surrounding culture. This theory, known as the socio-cultural perspective, states that the cognitive development of children and adolescents is enhanced when they work in their Zone of Proximal Development (ZPD). It is in this zone, learning takes place. Thus, children need the help of adults or more competent individuals to support or scaffold them as they are learning new things. Each learner's ZPD may be different. An effective teacher understands this and provides learning opportunities.

According to Vygotsky's theory, children can do more with the help and guidance of an adult or other person, more experienced person than they can do by themselves. The Zone of Proximal Development defines skills and abilities that are in the process of development.

(d) Cooperative learning strategies

Co-operative Learning has become widely used instructional procedure in teacher preparation programs, in-service professional development and in all subject areas as a self learning strategy. Co-operative Learning is a successful teaching strategy in which small teams (each with students of different levels of ability); use a variety of learning activities to improve their understanding of a subject. It is used as pedagogical approach in conjunction with lectures. The main purpose of Cooperative Learning is to actively involve students in the learning process.

It is a teaching strategy involving student's participation in small group learning activities that promote positive interaction. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of high achievement. The main purpose of Co-operative Learning is actively involving the learners in the learning process. Co-operative Learning method includes many techniques. Some of these are:

- Learning together (LT)
- Teams-games-tournaments (TGT)
- Group investigation (GI)
- Student-Team- Achievement-Divisions (STAD)
- Jigsaw procedures

You can explore more details of these techniques which is interesting and challenging.

(e) Portfolio assessment:

A student portfolio is a systematic collection of student work and related material that depicts a student's activities, accomplishments, and achievements. The collection should include evidence of student-teachers reflection and self-evaluation, guidelines for selecting the portfolio contents, and criteria for judging the quality of the work. The goal is to help student-teachers assemble portfolios that illustrate their talents, represent their writing capabilities, and tell their stories of achievement... (Venn, 2000).

Two major types of portfolios are Process and Product portfolios. A process portfolio documents the stages of learning and provides a progressive record of student growth. A product portfolio demonstrates mastery of a learning task or a set of learning objectives and contains only the best work. Teacher-educators can use process portfolios to help student-teachers identify learning goals, document progress over time, and demonstrate learning mastery. In general, teachers prefer to use process portfolios because they are ideal for documenting the stages that student-teachers go through as they learn and progress (Venn, 2000).

(f) Performance assessment:

Performance assessment is a method of teaching and learning that involves both process and product. It is not just a testing strategy. Performance assessment tasks involve students in constructing various types of products for diverse audiences. Students also are involved in developing the process that leads to the finished product. Performance assessment measures what students can do with what they know, rather than how much they know. Performance assessment tasks are based on what is most essential in the curriculum and what is interesting to a student.

g) Misconceptions in mathematics:

Students do not come to the classroom as "blank sheets" (Resnick, 1983). Instead, they come with concepts and principles constructed from everyday experience and previous classes. These are very essential for further successful learning. However, some of the mathematical ideas that students have already constructed and used to make sense of the new learning, may be incomplete half-truths. These are 'misunderstandings' or 'misconceptions' in mathematics.

'Misunderstanding' is a problem for two reasons.

- First, they interfere with learning when students use them to interpret new experiences.
- Second, students are emotionally and intellectually attached to their 'misconceptions', because they have actively constructed them.

h) Reflection :

This process includes reviewing, reconstructing, reenacting, and critically analyzing one's own teaching abilities and then grouping these reflected explanations into evidence of changes that need to be made to become a better teacher. This is what a teacher does when he or she looks back at the teaching and learning that has occurred–reconstructs, reenacts, and recaptures the events, the emotions, and the accomplishments. Reflection is an important part of professional development. All teachers must learn to observe outcomes and determine the reasons for success or failure. Through reflection, teachers focus on their concerns, come to better understand their own teaching behavior, and help themselves or colleagues improve as teachers. Through reflective practices in a group setting, teachers learn to listen carefully to each other, which also gives them insight into their own work.

3. Mode of transaction and assessment

In order to ensure effective transaction of the curriculum of this course, for each unit suggestions are provided briefly in terms of broad goals to be achieved, activities for classroom transaction and assessment techniques. The activities listed here are by no means exhaustive or meant to be prescriptive. They are intended to provide indicators for teacher educators to build on further.

Unit	Major Objectives	Suggested Classroom Transaction Strategies	Suggested Assessment Strategies
1. Perspective about mathematical knowledge	1.1 To realize and appreciate the nature and characteristics of mathematics.	1.1.1 ***Reading the material*** facilitated by the teacher-educator followed by small group discussion to discover and generate examples for the unique characteristics of the subject mathematics. 1.1.2 ***Studying*** the primary school textbook (1 to 5) – small group discussion. Each group can take up any one particular standard textbook and identify the units/sub-units/content points representing different characteristics of mathematics. 1.1.3 ***Preparing charts/transparencies/PPT*** on illustrations for these characteristics and displaying them for the whole group.	1.1.1 Assessment based on indicators for participation in small group discussions. 1.1.2 Presenting the consolidated report individually for portfolio assessment. Using rubrics to assess the reports.
	1.2 To explain the meaning of each content category with examples.	1.2.1 ***Lecturing*** by the teacher-educator on the four content categories with suitable mathematical examples and illustrations. 1.2.2 ***Small group activity*** to identify the four content categories in the syllabus prescribed for	1.2.1 Written report on an explanation for each content category and listing the examples (both assorted and unit wise). This report to be filed for portfolio assessment.

		primary level mathematics. The student-teachers are guided to first begin with assorted examples from different units and then unit wise.	
	1.3 To analyse the content of a unit in mathematics.	1.3.1 ***Studying*** the material on sample content analysis facilitated by the teacher educator (samples of different units having different content categories to be provided) – small group discussion. 1.3.2 ***Initiating the discussion*** on need for content analysis and list the advantages – ***small group activity.*** 1.3.3 ***Guiding individual activity*** where each student-teacher selects a unit and prepares content analysis.	1.3.1 Assessment based on indicators for participation in small group discussions. 1.3.2 Performance Assessment of the competency to do content analysis using rubrics.
	1.4a To develop an understanding about the goals and aims of teaching mathematics. 1.4b To get awareness about the objectives of mathematics education as envisaged by NCF, 2005.	1.4.1 ***Reading material*** on goals and aims of teaching mathematics at primary level – small group activity. 1.4.2 ***Small group discussion*** initiated by teacher-educator on the significance of goals and aims of teaching mathematics at primary level followed by paper presentation. 1.4.3 ***Presenting a class-talk*** on objectives of teaching mathematics as envisaged by NCF, 2005. 1.4.4 ***Lecturing*** by the teacher-educator to consolidate all the points regarding the aims, goals and objectives of mathematics education at elementary level.	1.4.1 Concept mapping on the aims, goals and objectives of teaching mathematics at elementary level.

	1.5a To acquire knowledge about the revised Bloom's taxonomy.	1.5.1 ***Studying*** the advanced organizer related to revised Bloom's taxonomy. 1.5.2 ***Small group discussion*** on the specific under each of the instructional objectives and generating relevant examples.	1.5.1 Concept mapping on revised Bloom's taxonomy. 1.5.2 Preparing a report on instructional objectives and task analysis for a specific unit in mathematics. This report to be filed for portfolio assessment.
	1.5b. To prescribe the instructional objectives for a unit in mathematics (Std. 1 to 5).	1.5.3 ***Presenting*** samples on prescribed instructional objectives and specific behaviors for different units, followed by small group discussion.	1.5.3 Using rubrics for assessing the report.
	1.5c To perform task analysis for specific instructional objectives.	1.5.4 ***Guiding small group activity*** on performing task analysis for specific instructional objectives of a unit. 1.5.5 ***Preparing*** the list of instructional objectives and task analysis for a unit by each student-teacher. 1.5.6 ***Maintaining reflective file/journal*** – Teacher-educator to facilitate this task by posing key questions and guiding them to do SWOT analysis and also record critical learning moments.	1.5.4 Qualitative analysis of the recording made in the reflective journal.
2. Mathematics Content knowledge	*2.1 To develop conceptual understanding of the mathematical facts, concepts and*	2.1.1 **Preparing and administering** pre-content test. This is to assess the conceptual understanding of student-teachers in various content units in mathematics prescribed for elementary level mathematics. The test paper is	2.1.1 Diagonastic tests to assess the conceptual understanding of the student-teachers in prescribed content units in elementary level syllabus. This should be

	generalisations of different units prescribed in the elementary level mathematics syllabus.	expected to be diagnostic in nature. 2.1.2 Do error analysis and list the content areas in which student-teachers have deficiencies/misconceptions. 2.1.3 **Posing questions** related to the misconceptions for reflective thinking and **structuring activities** for reconstruction of the concepts correctly. Planning for this has to be done for all the content areas listed in the syllabus. All the content units need not be taken up at a stretch continuously, but spread over the entire academic year as and when can be done appropriately. 2.1.4 For each content area after completing the structured activities, **construct and administer** post content test. Error analysis to be done and results of both pre and post tests to be compared and interpreted. If this process cannot be done for all content units, select the units for which such an analysis is very essential (based on the results of error analysis) and follow the process. For the remaining units organise small group activities where the student-teachers discuss, reflect – on and reconstruct the concepts and solve problems. Provide work sheets, self learning materials, manipulatives, computer assissted learning materials etc. to work in groups. 2.1.5 **Watching videos or Live demonstrations and presentations** by resource persons (experienced school level	administered as pre- content test. 2.1.2 Achievement tests to assess the conceptual understanding. This to be administered as post-contest test. 2.1.3 Work sheets to assess the problem solving skills of student-teachers.

		classroom teachers, lecturers/Professors, Experts in the subject) on Mathematics content in a D.Ed classroom. 2.1.6 **Class talks** can be arranged where ever required and possible. (Note: All the above mentioned activities can be spread over the entire academic year.) Integrating content is suggested in other units .	
	2.2 To develop pedagogical content knowledge of the various units prescribed in the elementary level mathematics.	2.2.1 Subject matter knowledge is developed through the activities 1.1 to 1.6. 2.2.2 Knowledge regarding each content unit should be dealt with the following aspects: a) conceptions, misconceptions and difficulties that student's encounter while learning that unit b) pre-requisites for learning that unit c)objectives and task analysis for the unit d) Multiple ways of representing the content-example, illustrations, analogies, activities, manipulatives, problems e)teaching strategies, techniques and models for suitable adaptation into the classrooms while teaching that unit (The above mentioned components are included in the PCK) PCK can be developed through the following activities. All of them can be organised as small group activities with discussions. This process has to be carried on for each content unit and the units to be planned and spread over for the	

		entire academic year. i) Administering diagnostic tests and performing error analysis to identify difficulties and misconceptions ii) Interviewing school children who encounter difficulties in learning mathematics iii) Small group activities followed by discussions iv) Brain storming sessions to generate different views on the issues regarding mathematics learning (Note: Details about the above mentioned aspects, suggested classroom activities and assessment strategies are provided in the respective units, particularly in 4 and 5).	
3.Learning of Mathematics	3.1. To explain the learning theories as proposed by Piaget, Bruner, Vygotsky, Dienes and Skemp . 3.2. To understand the educational implications of these learning theories.	3.1.1 ***Lecturing supported by power point presentation*** to highlight the important aspects of each learning theory. 3.1.2 ***Guiding reading*** the material on the learning theories and noting down the important points. 3.1.3 ***Studying material and resource book*** with discussions initiated by teacher educator through questioning. 3.2.1 ***Small group discussion*** on the educational implications of each of these theories followed by group presentations. 3.3.1 ***Watching a recorded video*** on	3.1.1Written achievement test on learning theories. 3.1.2 A report on the comparative study of the different learning theories and their educational implications. This report to be filed for portfolio assessment. 3.1.3 An observation report based on video lessons. A check list to assess the observation reports.

	3.3. To develop understanding about Constructivism and constructivist learning environment.	constructivist learning environment and traditional learning environment (real class room demonstration lessons) and recording the observations. 3.3.2 ***Small group discussions*** based on the observations made by each member – to highlight the characteristics of each type of learning environment and compare them. 3.3.3 ***Brainstorming session*** on role of constructivist teacher.	
4. Facilitating learning mathematics	4.1a. To develop understanding of the five E'S model. 4.1b. To develop skill in preparing lesson plans based on five E's model.	4.1.1 ***Studying the advanced organizer*** on five E's model followed by a lecture on the various activities/strategies of each stage. 4.1.2 ***Watching a recorded video or observing a real classroom situation*** on the demonstration of a lesson based on five E's model and recording the observations. 4.1.3 ***Small group discussion*** on the observations made and analyzing the activities/interactions attempted at each stage. 4.1.4 ***Preparing lesson plans*** based on five E's model. 4.1.5 ***Practicing*** the planned lesson in simulated situation and also during the practice teaching session under the teacher–educator and peer observation. 4.1.6 ***Maintaining reflective journal*** – Teacher-educator to facilitate this task by posing key questions and guiding them to do SWOT analysis and also record critical learning moments.	4.1.1Observation schedule for assessing the lessons. 4.1.2Performance assessment using rubrics for assessing the lesson plans based on five E's model. 4.1.3 Qualitative analysis of the recordings made in the reflective journal.

	4.2. To develop understanding of and skill in preparing lessons based on *Activity based learning, *concept formation strategy * concept attainment model *inductive thinking model *inquiry based learning, *Co-operative learning strategies *Nali-kali lessons	4.2.1 Same transactional strategies as suggested for the five E's model can be followed while transacting the other methods or strategies. The order in which the above listed activities can change for different teaching models or strategies. It can be watching demonstrations, then small group discussion followed by lecturing and so on. 4.2.2 Observing nail-kali lessons during practice teaching session and presenting a report.	Same evaluation techniques as suggested above.
	4.3. To develop skill in constructing oral, written and drill exercise in mathematics.	4.3.1 ***Lecturing*** by teacher-educator followed by discussion on meaning, need and principles of oral, written and drill work in mathematics. 4.3.2 ***Workshop in small groups*** to construct exercises for oral, written and drill work in mathematics. 4.3.3 ***Studying*** the textbooks in small groups to analyse and identify the exercises on oral, written and drill work. 4.3.4 ***Preparing*** items for oral, written and drill exercises – individual work and presenting a report.	4.3.1 Preparing a report on the exercises. This report to be filed for portfolio assessment. 4.3.2 Using rubric for assessing the construction of exercises.

	4.4 To develop skill in planning unit lessons.	4.4.1 ***Initiating dialogues*** by the teacher-educator on the need for planning unit lessons, followed by brainstorming session. 4.4.2 ***Studying sample/models*** on unit lesson plans and their format by the student-teachers in small groups to identify the characteristics and stages of planning. 4.4.3 ***Guided activity*** for preparation of unit lesson plans - individual work and presenting a report.	87 4.4.1 Preparing a report on the unit lesson plans. This report to be filed for portfolio assessment. 4.4.2 Using rubric for assessing the unit lesson plan.
	4.5. To develop skill in preparation and use of learning materials in mathematics.	4.5.1 ***Lecture cum demonstration*** by the teacher-educator on need, preparation and use of various teaching-learning materials of mathematics followed by small group discussion. 4.5.2 ***Watching video or live demonstration*** by an expert resource person on teaching-learning materials. 4.5.3 ***Visiting*** the museum /DIET /CTE/ SCHOOL for ***viewing*** teaching-learning material related to mathematics. 4.5.4 ***Workshop*** on preparing teaching-learning materials – small group activity. 4.5.5 ***Preparing*** a report on the materials by the student-teachers which they have made and their use in classroom. *4.5.6* ***Maintaining reflective journal*** – Teacher-educator to facilitate this task by posing key questions regarding teaching-	4.5.1 Rating scale to evaluate the teaching-learning materials. 4.5.2 Preparing a report on the teaching-learning materials. This report to be filed for portfolio assessment. 4.5.3 Qualitative analysis of the recordings made in the reflective journal.

		learning materials and guiding them to do SWOT analysis and also record critical learning moments.	88
	4.6 To develop awareness about the role of ICT in mathematics learning. 6b.To introduce K-Turtle to develop logical thinking.	4.6.1 ***Class talk*** on role of ICT in mathematics learning. 4.6.2 ***Observing*** the use of ICT in real classroom situations during practice teaching session. – Computer assisted instruction/ smart classes. 4.6.3 ***Lecture cum demonstration*** on use of K-Turtle. 4.6.4 ***Guided activity*** to develop learning materials for mathematics.	4.6.1 Preparing and presenting a report on the observations and ICT in mathematics learning. This report to be filed for portfolio assessment.
5. Assessment of mathematics learning	5.1 To develop conceptual understanding about assessment and evaluation and CCE in mathematics.	5.1.1 ***Studying*** the material on assessment, evaluation and CCE in mathematics followed by small group discussion initiated by the teacher educator.	5.1.1 Written test on concept of assessment, Evaluation and CCE.
	5.2. To differentiate between formative and summative assessment; oral and written assessment.	5.2.1***Guiding reading material and explaining*** the concept of formative and summative assessment, their characteristics and differences followed by group discussion. 5.2.2 ***Preparing and presenting*** report on types of assessment.	5.2.1 Written test on types of assessment.
	5.3. To develop an understanding of	*5.3.1* ***Studying material*** on different tools of assessing mathematics followed by small group	5.3.1 Presenting a report on tools of assessing mathematics. This report

	different tools of assessing mathematics.	discussion. 5.3.2 ***Reviewing*** different tools of assessing mathematics. 5.3.4 ***Constructing*** achievement test and diagnostic test in mathematics by student-teachers.	to be filed for portfolio assessment. 5.3.2 Using rubric for assessing achievement test and diagnostic test constructed by the student-teacher.
	5.4. To develop conceptual understanding of portfolio and performance in mathematics.	5.4.1 ***Lecture cum demonstration*** by teacher educator on portfolio and performance assessment in mathematics followed by small group discussion.	5.4.1 Presenting a report on portfolio and performance assessment with examples. This report to be filed for portfolio assessment.
	5.5. To develop an awareness about misconceptions in mathematics.	5.5.1 Presenting study material on misconceptions in mathematics with suitable examples. Organise small group activity to discuss the ideas and enumerate the common misconceptions in mathematics. 5.2 ***Presenting*** class talk on misconceptions in mathematics.	5.5.1 Presenting a report on misconceptions in mathematics with examples. This report to be filed for portfolio assessment.

b. Practical

General Note: Unless otherwise mentioned in the curriculum, all practical under each unit are compulsory. Those requiring extended period of school visits can be taken up during practice teaching/internship.

Unit	Suggested Practical	Purpose	Pointers for conducting Practical	Suggestions for Assessing Practical
1. Perspective about mathematical knowledge	The practical activities suggested in this unit are in continuation of the theory part of the unit. Hence, the practical work to be done by the student-teachers is already mentioned along with suggested activities for classroom transaction in theory part. Those suggested activities in small groups or individually are to be considered for practical work. Suggested assessment techniques can be followed to evaluate student-teachers work.			
2. Mathematics Content knowledge	As suggested in the curriculum, each student-teacher should be assigned only two practical out of the five. All the 5 activities to be conducted as small group activities. Allot the members to 2 different groups for the 2 practical activities. Make the practical on ***Collecting and Developing patterns - both numerical and geometrical*** as compulsory activity and any one from the other 4. Let all the 4 activities be equally distributed.			
	2.1 Review material on development of numbers and number systems	2.1 To acquire knowledge and appreciate the development of numbers and number systems.	* Guide them to collect information on the logical development of numbers and number systems. *Suggest reference books and internet sources. *If the books are not available/ accessible, provide reading material.	*Develop and use a rubric for assessing the presentation of the report –indicators – content covered, logical organization of content, presentation skills and so on. *Develop and use a rubric for assessing the presentation of the report –indicators – content covered, logical presentation, presentation skills and so on.
	2.2 Collect information and present paper on mathematicians from diverse cultures and their contributions	2.2 Student-teachers should acquaint themselves with the knowledge of life history of mathematicians and appreciate their contribution.	*Suggest the reference books and internet sources. *Guide them about the presentation to be made. *Suggest the mathematicians whose contributions are studied at the primary level.	*Prepare and use a check l

			*Collection of picture of the mathematician is to be recommended.	assessing the process of carrying out the project work and a rubric to for assessing the project report.
	2.3 Design investigations, collect data, use different ways to represent them and interpret	2.3 To develop skill in collecting, organizing, analyzing and interpreting data.	*Guide student-teachers to take up project work in which they design investigations by presenting and discussing sample projects. *Let the project work highlight the process of collecting data, organizing it, analyzing and interpreting it. Also guide them to represent the data pictorially /graphically.	*Develop and use a rubric to assess the report on enriched information.
	2.4 Collect and present enriched information on each of the units	2.4 To help the student-teachers to go beyond the information given in the textbooks and develop resourcefulness in the subject.	* Teacher-educator to present samples on content enriched information on selected units. *Suggest reference books and internet resources * Guide student-teachers to collect and process enriched information on the selected units. *Enriched information may include higher order concepts, patterns, illustrations and activities.	*Develop and use a check list to assess the report. This report to be filed for portfolio assessment.

	2.5 Collecting and Developing patterns - both numerical and geometrical	2.5 To identify and appreciate numerical and geometrical patterns in mathematics.	*Teacher-educator to present a lecture cum demonstration on patterns in mathematics. *Initiate dialogues by posing questions related to importance of patterns in mathematics learning – discussion in small groups. *Small group activity to identify and also generate patterns in mathematics. Games based on numerical patterns can also be collected. *Teacher-educator to allot units to each group and suggest reference sources. *Guidance to be given to student-teachers to present numerical patterns on charts and geometrical patterns on charts or decorative materials. *Guide them to present a report.	

3.Learning of Mathematics	All the four activities suggested in the curriculum are compulsory for all the student-teachers. Each student-teacher should be assigned **two** practical activities (3.1 and 3.4) as small group activities. Allot the members to 2 different groups for these two practical activities. Practical activities 3.2 and 3.3 should be taken as individual activities.			
	3.1 Conduct activities on Piagetian tasks.	*To get exposure and familiarize with Piagetian tasks. *To develop skill in planning and conducting the activity.	*Present the material and hand-out required for conducting the Piagetian tasks. * Teacher-educator to demonstrate the procedure of conducting Piagetian tasks. *Guide student-teachers to plan and conduct the activity in small groups. *This activity to be conducted practice-teaching session. *Guide student-teachers to present a report and a reflection on their own experiences.	*Use a rating scale to assess the process of planning and the report presented after conducting the activity.
	3.2 Structuring activities based on Bruner's theory of learning mathematical concepts.	*To develop conceptual understanding about structuring activities based on Bruner's theory. *To develop skill in structuring and conducting the activities.	*Guide student-teachers to select concepts from the lessons they are planning to teach during practice teaching session and do concept analysis according to Bruner. *Teacher-educator to demonstrate structured activities for concept formation and	*Develop and use a rubric to assess the skill of teacher-teachers in analyzing the concepts, structuring the activities and conducting them. *Use a rubric for performance assessment.

	3.3Conduct activities by preparing and using Dienes manipulatives.	*To get exposure and familiarize with Dienes manipulatives. *To develop skill in preparing and using the manipulatives to conduct the activity. *To observe how and to what extent constructivist learning environment exist in real classroom activities in	concept attainment. *Guide student –teachers to structure and conduct activities for concept formation and concept attainment. These activities are part of their lesson plans to be used during practice teaching session. Let them present a report on concept analysis structured activities. *Present the material and hand-out required for preparing and using Dienes manipulatives. * Teacher-educator to demonstrate the procedure of using the manipulatives. *Guide student-teachers to prepare and conduct the activity . Let this be a part of their lesson plans. This activity to be conducted practice-teaching session. *Guide student-teachers to present a report and a reflection on their own experiences. *Provide hand-outs on characteristics of constructivist learning environment (CLE) and check list/rating scale to observe and assess the CLE.	*Use a rating scale to assess the process of planning and the report presented after conducting the activity. *Use a rubric for performance assessment. *Qualitative analysis of the report to be done. This report to be filed for portfolio assessment.

	3.4 Observe mathematics classroom activities and report to what extent constructivist learning environments exist.	schools.	*Guide student-teachers to observe, critically analyse and present a report on CLE. This activity to be carried on during practice teaching session. Let them plan this activity in small groups and observe the actual classroom activities of school teachers.	
4. Facilitating learning mathematics	Activities 4.1 to 4.4 are part of practice teaching work and hence to be taken up as individual activities by each student-teacher. Activities 4.5 to 4.9 are to be taken up as small group activity. All the activities are compulsory for all the student-teachers, as they are also assessed for internal marks of practice-teaching work. The purpose, suggestions for conducting and assessing are given commonly together for activities 4.1 to 4.4 and for activities 4.5 to 4.7.			
	4.1 Preparation and presentation of lesson episodes on each of the models and strategies of teaching mathematics. 4.2 Preparing unit based lessons for mathematics teaching. 4.3 Preparing worksheets for drill work in	*To develop the skill in planning/ preparing the lesson episodes/plans and materials. *To develop the skill in using these materials in real class room situations.	*Teacher-educator to provide samples and demonstrations for each of these activities. *Guide student-teachers to prepare the materials. The first lesson/learning material/drill exercise to be developed in small groups and then for the remaining further materials go for individual work. *Teacher-educator to monitor the process of development both in group	*Develop and use rubrics for assessing the various materials. *Observation schedule to be used for assessing the lessons (both in simulated and real situations).

	mathematics 4.4 Prepare and use various learning materials for teaching mathematics. 4.5 Preparation of materials and manuals for various games and recreational activities in mathematics. 4.6 Preparation and use of materials for art based activities in learning Mathematics. 4.7 Planning and preparing materials for conducting mathematics quiz.	*To develop skill in preparing materials and procedure sheets for games and recreational activities, art based activities and quiz in mathematics. *To develop appreciation towards the recreational role of mathematics. *To create awareness about the art based activities in	work and individual work. *Let student-teachers practice the lessons and materials in simulated situations and also in real situations during practice-teaching session. *Teacher-educator to present a hand-out on need and role of recreational activities in learning mathematics – small group activity to study and discuss this material. *Present some samples and demonstrate the activities – allow student-teachers to observe and discuss. *Guide them to prepare the materials for selected games and activities – small group activity. *Let them practice conducting these activities both in simulated situations and in real classroom situations during practice teaching session. * Guide student-teachers to present a report and a	*Use a rating scale to assess the process of planning and the report presented after conducting the activity. *Use a rubric for performance assessment. * Qualitative analysis of the report to be done. This report to be filed for portfolio assessment. *Rating scale to be used for assessing the reports. This report to be filed for portfolio assessment.

		mathematics. *To develop skill in conducting all the above mentioned activities in mathematics.	reflection on their own experiences – this to be done individually. *Teacher-educator to orient student-teachers about Nali-Kali practices in schools.	*Use a rubric to assess the process and also the report. Let this report be filed for portfolio assessment.
	4.8 Observe Nali-Kali lessons in the real classrooms.	*To get an exposure to Nali-Kali lessons in mathematics.	*Provide an observation schedule to observe these lessons during practice teaching session. *Let student-teachers present a report on these observations. *Present some web resources.	
	4.9 Collect and report the various technological web resources for learning Mathematics.	*To get an exposure to various web resources for learning mathematics. * To develop skill in searching and availing the web resources, and use them.	*Guide them to browse through the internet and search for web resources. Let them present on the various web resources, both hard and soft copy.	

5. Assessment of mathematics learning	5.1 Preparation of test items for oral and written tests in mathematics. 5.2 Preparation of achievement tests, administering them and analysing the results.	* To develop skill in constructing objective based and criterion test items in mathematics. *To develop skill in preparing achievement test papers in mathematics. *To develop skill in administering and scoring the test papers. *To develop skill in analyzing and interpreting the data.	*Present a hand out on do's and don'ts of constructing various types of test items and test papers in mathematics with examples. *Guide student-teachers to construct test items, design blue print and prepare unit test question papers based on the blue print. Let them administer the test papers after teaching a unit during practice teaching session. *Guide them to score the answer scripts following the scoring key. *Present samples on analyzing and interpreting the data. Let this be a small group activity where they study samples followed by discussions. *Guide them to present a report on analysis and interpretation of data they have collected. *Guide student-teachers to present a report and a reflection on their own experiences – this to be	*Use a rubric to assess the test items, question paper and the report on analysis & interpretation. *Qualitative analysis of the report to be done. This report to be filed for portfolio assessment. *Use a rubric to assess the report. This report to be filed for portfolio assessment.

	5.3 Analysis of test papers used in the schools. 5.4 Studying standardised diagnostic tests in mathematics. 5.5 Designing diagnostic tools to probe children's misconceptions in mathematics. Administering these tools and analysing the results.	*To develop skill in critically analysing the test papers used in schools. *To get awareness about misconceptions in mathematics. *To get exposure to standardized diagnostic tool in mathematics. *To develop skill in constructing diagnostic test papers in mathematics. *To develop	done individually. *Provide a collection of test papers used in schools and a check list to analyse and assess these question papers. *Organise small group activity to study and critically analyse these question papers with discussions. Let them present a report on the analysis done. *Present photo copies of answer scripts of mathematics test - collected from schools. Organise small group activity to study them and identify the misconceptions. *Provide samples of teacher made and standardised diagnostic test papers. Organise small group activity to study them followed by discussions. * Guide them to construct	*Use a rubric to assess the diagnostic test items, question paper and the report on analysis & interpretation. *Qualitative analysis of the report on reflections to be done. This report to be filed for portfolio assessment. * Qualitative analysis of the report on reflections to be done. This report to be filed for portfolio assessment.

	5.6 Comparative study of CCE pattern followed by Karnataka state and CBSE board.	skill in preparing error analysis table. *To develop skill in analyzing and interpreting the results of diagnostic test. *To develop an understanding of CCE pattern followed by Karnataka State Board and CBSE Board.	diagnostic test items and prepare diagnostic test paper. Let them administer these test papers during practice teaching session. *Guide them to prepare error analysis table by providing samples - let this be a small group activity. *Guide them to analyse and interpret the results and present a report. *Guide student-teachers to present a report on their own experiences reflections – this to be done individually. *Provide the material on CCE pattern of both the boards. Organise small group activity to study and discus the patterns. Guide them to compare the two patterns, identify the commonalities and differences. Let them present a report.	

Suggested Readings:

Brooks, J.G. & Brooks, M.G. (1999). *In search of understanding: The case for constructivist classroom.* Association for Supervision and curriculum Development, Alexandria, Verginia, USA.

Bruner, J.S., Goodnow, J.J. & Austin, G.A. (1966). *A study of thinking*. John Wiley &Sons Inc.

D'Augustine, C.H. (1960). *Multiple methods of teaching mathematics in the elementary school*. Scott: Foresman &Co.

Haylock, D. (2006). *Mathematics explained for primary teachers*. New Delhi: Sage Publications.

IGNOU, AMT-01. *Teaching of Primary School Mathematics*. IGNOU, New Delhi.

IGNOU, LMT-01. *Learning Mathematics*. IGNOU, New Delhi

Johnson, D.W. & Johnson, R.T. (1999). *Learning together and alone: Cooperative, competitive and individualistic learning*. Fifth Edition; Allyn and Bacon.

Lieback, P. (1984). *How children learn mathematics: A guide for parents and teachers*. London: Penguin.

NCERT (2005). *National Curriculum Framework for School Education*. NewDelhi: NCERT.

NCTE. (2009). *National Curriculum Framework for Teacher Education*. New Delhi: NCTE.

Piaget, J. (1973). *To understand is to invent*. New York: Crossman.

Reston, V. A. (1991). *Professional standards for teaching mathematics.* National Council for Teachers of Mathematics.

Skemp, R.R. (ND). *Mathematics in the primary school*. London: Rouledge.

Skemp, R.R. (1972). The psychology of learning mathematics. Penguin Publishers.

Zevenbergen, R., Dolley, S. & Wright, R.J. (2005). *Teaching mathematics in the primary schools.* Australia: Allen and Unwin.

(*Note*: Apart from the above listed references Mathematics text books of different state boards, CBSE and ICSE syllabus textbooks and reference books, Mathematics textbooks for primary level published by Eklavya Foundation and Homi Bhabha Centre for Science Education can also be referred.)

1.2.3 Environmental Science

EVS in school and Teacher Education

India recognizes Education as a key instrument in environmental protection and conservation. With the explicit emphasis laid in the National Policy on Education (NPE, 1986) in creating environmental awareness and understanding in all sections of people beginning with children, several initiatives have been undertaken to integrate environment perspective and programmes in school and teacher education programmes.

The National Curriculum Framework (NCF, 2005) has included Environmental Studies (EVS) at the primary education as an integrated subject drawing upon insights from sciences (physics, chemistry and biology), social studies (history, geography, civics, etc) and environmental education (protection and conservation). It is aimed at developing in children a **holistic** or **integrated perspective** of our environment. Consequentially, recognizing the symbiotic relationship between teacher education and school education, NCFTE (2009), provided a teacher education framework integrating the context, concerns and vision cherished in NCF, 2005 and RtE Act 2009.

As a response to these national developments in education and reflecting the broader curricular principles enshrined in NCF 2005, the Government of Karnataka, in the last two years, has revised its elementary school curriculum. Environmental Studies (EVS) is incorporated in the school curriculum up to standard 4 as an integrating study area. Its contents are thematically organised with child centred and holistic approaches as the focal points of its transaction.

As a corollary to these changes made in the school curriculum, in the revised D.Ed Curriculum (2012), a separate course on 'Facilitating learning of EVS' is introduced in the first year. This is a common subject and to be studied and practiced by all the student teachers.

1. Shifts in Perspective

So far there has been no orientation to student teachers at the pre-service level to transact EVS concepts/themes, which are introduced in the school curriculum.

EVS, as enshrined in NCF 2005, requires teachers to use environment as a 'medium of learning' for children and to foster in children environmental values, habits and practices for its conservation. EVS, as an integrating study area, demands an interdisciplinary, experiential and activity-based organization of learning. These expectations put the elementary teacher in a very challenging position. The pedagogy of EVS, introduced as a paper in the revised D.Ed curriculum, is aimed at preparing robust student teachers in effectively transacting EVS through inclusive approach aimed at developing a learning environment for all including children from diverse groups.

Focus of EVS course in D.Ed

The following are a few of the objectives of EVS at D.Ed:

1. Developing sensitivity and understanding in student teachers in using environment as a medium of learning for all children
2. Educating elementary student teachers in:
   - Contextualizing learning experiences within the concrete environment of the children, enabling children to build connections/relationships and learn from the environment.
   - Developing a holistic understanding/perspective of the environment in children.
   - Planning and organizing learning experiences that would incorporate as many different forms of learning situations /experience as possible (social, cultural, physical, biological, etc) for children in working toward the desired learning objectives.
   - Developing necessary skills and competencies to foster environmental-friendly attitudes and values and behaviours in children.

3. Building capacities in student teachers in planning, designing and organizing inclusive learning experiences based on constructivist approaches of teaching-learning.
4. Educating student teachers in organizing outdoor learning experiences.
5. Educating student teachers in assessing EVS outcomes

The scope and potential of EVS will greatly diminish if it is relegated to just a school subject placed in the time table. EVS is a synthesis of ideas, values, actions and skills from many disciplines that can be developed through all the subjects. Hence, its contents cut across the boundaries of sciences and social sciences and maths. This will be the essential perspective of EVS content.

2. Brief explanation of key terms

Key concepts in EVS

Education In the environment:

- Gives reality, relevance and practical experience to learning through direct contact with the environment
- Develops important skills of data gathering and field investigations
- Develops aesthetic appreciation

Education About the environment:

- Provides understanding of how natural systems work, appreciates the complexity and wonder of natural systems.
- Provides understanding of the impact of human activities upon these systems
- Fosters environmental awareness and concerns

Education For the environment:

- Develops an informal concern and sense of responsibility for the environment
- Develops the motivation and skills to participate in environmental improvement
- Compatible with the wise use of environmental resources

3. Mode of Transaction

The several objectives of EVS elaborated earlier call for a paradigm shift from conventional teaching strategies to contemporary transformational strategies of teaching –learning including non-formal, inclusive, interactive ICT and cooperative methods. Some of the teaching-learning methods that can be used in EVS are:

Classroom based methods- Lecture session, Concept mapping, Group Discussion, Problem solving, Brain storming.

Outdoor methods- Observation, Demonstration, Experimentation, Inquiry, Resource mapping, Games, Survey and interview, Field visits, Nature Trail, EE Action Projects.

Creative expressions - Debate, Arts and Crafts, Play building, Creative writing, Story telling, Role play, Puppet show, Teaching media and materials.

S.No.	Unit	Concepts	Suggested activities for classroom transaction
1	Scope of EVS at the Primary School Stage	Importance of environment for sustenance of life on Earth; Need for preservation of nature, Nature and Environment, Living in harmony with Nature, family, community, state, nation and World.	Discussion, Elocution
		Understanding environment: Types of environment – Physical, and Biological, Natural and Human made, socio-cultural; Interaction of all these (environment) in shaping the individual – Interdependence, Interrelationships and impacts.	Stories to appreciate the concept of 'symbiosis' Discussion to elicit the implicit message in slogans such as: " If there are no tigers in Bandipur then there will be no water in Bengaluru" etc. Walk around a kilometer radius around the college(later school with children)-list/sketch: classify them, prepare a common mind map of its interlinkage

		Environment and the Child: Importance of environment in the all-round development of the child. Child's inherent desire to make sense of the environment and world through observation and experience.	Clinical Interview a few children in the age group of say 5 to 13: about the fauna /flora around their home/school. In order to understand that these children are in their preoprational and concrete operational stage, TE to facilitate discussion on the kinds of resources and experiences the child can be provided to understand: a: discovering Self: drawing/collecting pictures/things that are essential to self - discuss their source:(For ST's Maslow's pyramid /hierarchy can be introduced and reflecting on the way its linked to environment is necessary)
		Role of the environment in child's learning – helping the child to understand his/her immediate environment, learning at home and in the family, community and society.	Study of a near by village, Nature observation, Identifying the food chain & food web, interdependence, collection of specimens & mounting them. Village map, preparing green file etc.
		Valuing environment for learning: Importance of immediate environment in the early years of school education – psychological, sociological, philosophical, etc	
2	Objectives of including EVS at the primary stage	Why EVS at the Primary stage?	Presentation of view points by the student trainees on the importance of Environment as a medium for learning in the surroundings, discussion and consolidation of the merits of EVS.
		EVS as a composite study area drawing insights from science, social science and environment, Holistic/integrated perspective in EVS	Analysis of the lessons in the textbooks - Stds. 1 - V - and deduce integrated concepts .

		EVS as helping a child to explore 'Self' – neighbourhood – society and nation	*To build on the activity carried out in unit one. The assignment at this stage could be to actually observe and record the adults and children in the neighbourhood with a checklist of desirable and un-desirable attitudes towards environment, concerns, consolidate and report. *To collect and make a file of latest measures to protect environment, followed by a brief summary of discussion(this has to be original, reflective and a non-negotiable exercise) on the underlying causes and role of school education, role of teachers in contributing to the protective measures.
		EVS in the early standards of school education – Classes upto 5 and after 5th standard.	To critically evaluate both the NCERT and Karnataka STATE board text books: from socio-cultural perspective-sensitivity towards natural resources, flora, fauna, fellow humans/inclusivity that every one has a space, interdependence, and that one has to live cooperatively and should not exploit them for greed etc. (Student teacher should be insisted to do this independently following group discussion). Student teacher should record the strengths and weaknesses in the text books and judge the extent to which the contents meet the stated EVS objective. Student teacher should be encouraged, through discussion, to come up with/suggest alternate resources to over come the weaker aspects in the prescribed text.
		National policy, NCF 2005 and NCFTE 2009 on inclusion of EVS at the school level.	Student teachers to study endorsments on EE and EVS in NPE, 1986 and in NCF 2005, discuss the scope and importance of EVS in schools and colleges.
		Learning objectives of EVS at the primary level	Student teachers discuss in small groups each one of the following objectives stated in NCERT textbooks "Environmental Studies III-V", based on the NCF, 2005 and

			describe what it aims at and its significance. (Buzz-session) • To train children to locate and comprehend relationships between the natural, social and cultural environment; • To develop an understanding based on observation and illustration, drawn from live experiences and physical, biological, social and cultural aspects of life rather than abstractions; • To create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces; • To nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people); • To develop an awareness about environmental issues; **(Symposium)** • To engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc. • To emphasize design and fabrication, estimation and measurement as prelude to the development of technological and quantitative skills at later stages; • To be able to critically address gender concerns and issues of marginalization and oppression with values of equality and justice, and respect for human dignity and rights.

3	Curricular provisions, linkages and pedagogical principles in EVS	Thematic organization of content in EVS textbooks – linkages with textbook content	Student teachers to draw mind maps w.r.t topics on EVS in the primary text books (State as well CBSE). STs also to keep in mind the topics dealt in higher classes under science/math/social science etc. and be explicitly guided to elicit the EVS components in these.
		Local context – contextualization of EVS	Assignment: Student teachers to learn to /practice how to draw exemplars from their own context (immediate environment and school neighbourhood) for learning EVS and learner's context to teach EVS and then link them to global concerns: identification and keeping a data base of local resource + collection of local material resource where ever applicable for Classroom resource corner.
		Experiential Learning (Activity based) learning opportunity – known to unknown, inductive and deductive approaches.	Student teachers to do Thematic projects: three per group for STs: Eg: domestic animal(specifically the animal predominantly seen in that envt), air, water and other natural resources, food preservatives, cosmetics etc: ST should be guided to draw a mind map on the different perspectives these themes can be looked up and its implication to the environment, to the society and ultimately to self. This mind map can later be used for the actual project and can be moved to the practical aspects
		Values inherent in EVS	Student teachers to do a survey in their neighbourhod to understand the different values people hold vis-a vis environment, their use of natural resources, link people's behaviour with their values and attitudes and reason out how some of the undesirable attitudes and values could be clarified to them.

		Provisions made in textbooks to accommodate the above.	Student teachers to study the textbooks in Std.s I - VII and identify where and how the above can be incorporated. **(Discussion with TE)**
4	Approaches and Methods of transacting EVS	Education in the environment, Education about the environment and Education for the environment.	Listing the sources of information and experience by actually sourcing them in their place of residence/work (first hand experience) in: garden, outdoor activity, across the road, (Botonical museum, near by eco-system, visiting National park, bird sanctuary) about: interpretation of cartoons, stories, songs, comic strips,inviting local resource persons or using AV media for classtalks(provided by DSERT/DIET resource centre), (Watching envt. channels, news paper articals, discussion of present burning issues ex:- posco in gadag, proposed airport in Bellary etc..) for: actual issues, knowledge of the efforts by environmentalists followed by including in lesson plans about simple activites and experiences that can be practically tried out in classroom situation.(Practising Eco-friendly life style)
		Various methods and techniques of transaction– classroom based, outdoor and creative expressions – Arts and Crafts. (draw reference to Nali-Kali, Kali-Nali and Chaitanya methodologies)	Student teachers to practice some of the following methods and techniques for transacting concepts from the textbooks. **Classroom based methods-** Lecture session, Concept mapping, Group Discussion Problem solving, Brain storming. **Outdoor methods**- Observation, Critical thinking, Demonstration, Experimentation, Inquiry, Resource mapping, Games, Survey and interview, Field visits, Nature Trail, EE Action Projects. **Creative expressions** - Debate, Arts and Crafts, Play building, Creative writing, Story telling, Role play, Puppet show, Teaching media and materials.
		Planning and Facilitating outside classroom experiences	Reflective lesson planning and execution and feedback in action research mode especially in simulated classroom.
		Evaluating learning outcomes in EVS. (with reference to CCE)	Applying knowledge of tools and techniques of evaluation from (studied under evaluation) to assess EVS outcomes.

5	Resources and Materials for transacting EVS	Types of resource materials for EVS, identifying locally available resources – human and material – and using them for transaction,	(There is a need to understand that material resources and books could be catalogued and a practical system of retrieving them.)collection , classification, cataloging with a note about its features and its use: Classsifying them as Teaching aids/learning materials etc.
		Identification, Collection, Creation and maintaining teaching learning resources (print, Electronic media etc) in EVS.	1. kinds of raw materials to be used 2. kinds of raw materials to be avoided and reasons for the same 3. reinforce the concept of Reuse, recycle, reorient etc-Art can provide help to recycle, and discuss why it should be so 4.maintenance of AV aids, discussion of its limitations and have a back of alternate measures. **Some understanding of bio and non-biodegradable and non-polluting materials could be given**)
		Developing contextualized TLMs in EVS and creating environmental resource corners.	A model functional Resource Centre or classroom corner can be developed collaboratively by student teachers taking clues or help from the earlier batches and teacher educators and maintained throughout the course in their respective college classrooms instead of the year end exhibition of TLMs for co ordiantion board meeting.(This will not only add richness but also prevents non reflective, routinised and mechanical creation of models and charts. Teacher Educators should begin this process from the start of the term by adding resources developed by the earlier batches of STs).

4. Mode of Assessment

Periodic assessment/evaluation of learning outcomes helps in deciding the attainment of students in the subject area, suitability of learning experiences provided, learning strategies adopted and the appropriateness of the curriculum in general. In this regard, it is an integral part of curriculum construction and renewal process.

Evaluation in EVS concerns with objectives in cognitive, affective and psychomotor domains and hence a teacher should make use of a range of assessment techniques for measuring these learning outcomes. The document 'Habitat and Learning' highlights this by stressing "since the development of appropriate attitudes, skills and values is to be the most significant component of EE in schools, developing a scheme to assess student's achievement on these aspects will perhaps be the most crucial in determining the success of interventions through the EE curriculum".

Indicators for Assessment in EVS (NCF 2005)	
Observation and Recording –	Reporting, narrating and drawing; picture-reading, making pictures, tables and maps.
Discussion -	Listening, talking, expressing opinions, finding out from others
Expression -	Drawing, body movements, creative writing, etc.
Explanation -	Reasoning, making logical connections
Classification -	Categorizing, grouping, comparing and contrasting,
Questioning -	Expressing curiosity, critical thinking, asking questions
Analysis -	Predicting, arriving at inferences
Experimentation -	Improvisation, making things and doing experiments
Cooperation -	Taking responsibility and initiative, sharing and working together.
Concern for justice and Equality -	Sensitivity towards the disadvantaged and differently abled

Based on the above indicators, a teacher may have to use a variety of methods and techniques - oral, written and performance modes - to assess children's' learning. She/he can sometimes assess each child individually or assess groups or assess the whole class together. This necessitates grounding the student teachers in the use of various evaluation techniques by actually providing them with situations to understand and practice these techniques and tools as part of "continuous and comprehensive evaluation process" in EVS. This would help the teacher trainees understand the present learning levels of children but also how to use them in their day-to-day classroom practice. Also, based on the text and syllabus, written tests, exams can be conducted to evaluate one's understanding, perceptions, applied knowledge about the subject and the values which one committed for, could be done through summative evaluation.

5. Practical

	Activity	**Prerequisites: Preparation+ identification of resources**	**development**	**execution**	**Tentative time needed (total:90hours)**	**Marks allocated**
1	Specific skill practice: illustration with examples, map reading skills, story telling, music,	Knowledge of ICT, ART based and developing inclusive learning activities along with content/concepts	CR organization, seating, conducting – individual/small group/collective group activities, activities	Presentation in Peer group		

2	Exploratory/discovery activities- environmental issues	Local specific themes decided and submitted as part of assignment	Undertake guided discovery: watch thematic movies, walk through the village/city/garden etc, interview local resource persons, conduct survey, etc followed by reflective discussions			
3	Conducting simple experiments / observation that add value to achieve the stated objectives in curriculum and documenting the same.	Activities suggested in text books, reference books	Identification and conducting	Recording results and discussion with TEs and peers		

4	Field trips					
5	Thematic project	Knowledge of all concepts dealt in EVS, language and foundational course. Theme/topic identified in a collaborative manner	Brainstorm the different perspectives from which the theme is understood and use the skills of communication, speech, ICT, art, inclusive practice, identification and exploration of their sources of information, etc to document and present	Comprehensive study of the theme and submission.		

Suggested Readings

Blough & Schwartz. ( ). *Elementary school science & how to teach it.*

Lohitashwa, H.C. ( ). *Parisara mattu manava hakkugalu*

NCERT (2006). *Looking around – Textbook for classes III, IV and V*. Website: ncert.nic.in/ncerts/textbook/ textbook.htm/09.12.2012

Panneds, A. P. (1996). *Environmental science education*, Sterling publishers, pvt. Ltd

Ravindranath, M.J. (2001). *Training modules in environmental education for District Institutes of Education and Training (DIET)*. Centre for Environment Education (CEE), Ahmedabad, DPEP, Govt of Karnataka and MOEF, Govt. of India.

Sharma, P.D. (1999). *Ecology and environment*, Rastogi Publications, Meerut

Shrivastava, P. & Singh, D.P. (2002). *Environmental education*. New Delhi: Anmol Publications Pvt.Ltd,

Sheth, P. (1997).*Environmentalism – Politics, ecology and development*. New Delhi: Rawat Publications

Sinha, J. & Bharadwaj, A. ( ). *Environmental science.*

UNESCO. (1990). *Source book on Environmental Education for secondary school teachers*, Bangkok:UNESCO Principal Regional Office for Asia and the Pacific.

Important Websites:

http://www.ceeindia.org

http://www.unesco.org/esd

1.3 Communication Skills in English

This course is aimed at developing the communication skills in English of D Ed student-teachers. The course is practical in nature in the sense that relevant and adequate input will be provided to student-teachers along with a variety of interesting and meaningful tasks and activities to develop their abilities to communicate – in spoken as well as written forms - in English in real and natural contexts.

1. Shift in Perspective from the previous curriculum

- Compulsory course for all student-teachers
- Focus on developing English language proficiency
- Skills-oriented syllabus
- Inputs on phonetics, communicative grammar and language functions
- Extensive use of language learning resources
- Practical tasks and activities to develop communication skills (speech and writing) in English

2. Brief explanation of key terms

Discourse: Refers to a unit of language longer than a single sentence; also refers to the use of spoken or written language in a social context

Intelligibility: Refers to the quality of language that is comprehensible; the accuracy with which a normal listener can understand a spoken word or phrase

Lexical item: Refers to a term – word or a sequence of words – that acts as a unit of meaning, including words, phrases, phrasal verbs, and proverbs exemplified by "cat", "traffic light", "take care of", "by-the-way", and "don't count your chickens before they hatch".

CCE: Refers to Continuous and Comprehensive Evaluation which includes Formative and Summative Assessments

FA: Refers to Formative assessment

SA: Refers to Summative Assessment

TE : Refers to Teacher Educator

3. Mode of Transaction and assessment

In this section, a brief description of the contents of the units is provided. Also given are suggestions for transacting the units. Some activities, techniques and materials that can be used in the classroom for transacting the content are given. The activities listed here are by no means exhaustive or meant to be prescriptive. They are intended to provide pointers for teacher educators to build on further.

(a) Theory (50 hours)

S.No.	Units	Major Objectives	Suggested activities and materials for classroom transaction	Suggested Assessment techniques
1	Spoken skills – Listening and Speaking	1.1To introduce the sound and stress patterns of English language	*1.1.1 Input/Listening to audio CDs*– TE will provide input on the English sounds by articulating these sounds properly or by using CDs/cassettes *1.1.2 Practice* – Listen and repeat activities/dictionary reference/pronunciation games *1.1.3Dictionary reference and Transcription exercises*	1.1.1 Task sheets 1.1..2 Oral test 1.1.3 Transcription exercises
		1.2 To develop intonation skills	1.2.1 *Input and Practice sessions* – worksheets – dialogue practice activities 1.2.2 *Listening to CDs/cassettes*	1.2.1 Task sheets 1.2.2 oral test
		1.3 To develop listening comprehension skills of student-teachers	1.3.1 *Listening activities and Practice exercises* – student-teachers listen to a variety of texts and perform interesting activities (listen and answer, listen and act out, listen and narrate, listen and draw, listen and take notes, etc.), Chinese whisper (pass the message) 1.3.2. *Presentation by the TE* – TE makes a PPt presentation on listening strategies and becoming a good listener	1.3.1 Listening passages and Worksheets 1.3.2 Aural test
		1.4 To enable them to speak intelligibly,	1.4.1 *Speaking activities* – group discussions, interviews, role plays, dramatization,	1.4.1 Oral test

		fluently and confidently in English	narration, reporting, debates, anchoring a programme, welcoming guests in a formal function, proposing vote of thanks 1.4.2 *Reading aloud exercises* – TE trains student-teachers in reading aloud passages, dialogues, reports, etc. 1.4.3 *Discussion* – TE makes student-teachers aware of commonly mispronounced words	1.4.2 Group discussion tasks 1.4.3 Reading aloud passages
2.	Reading and Writing	2.1 To develop reading comprehension skills	2.1.1 *Reading sessions* – Student-teachers read a variety of reading texts and complete the reading comprehension exercises. Tasks to develop skimming, scanning and intensive reading skills are set. TE conducts various pre-reading and post-reading activities integrating other skills. 2.1.2 *Note-making, summarizing exercises* – 2.1.3 *Extensive reading sessions/library work* – student-teachers are encouraged to inculcate good reading habits by reading stories, comics, children's literature, fiction, etc. in the library and keeping reading logs.	2.1.1 FA1: Maintaining reading logs – criteria to be evolved for assessment 2. 1.2 FA2: Library project 2.1.3 SA: Reading comprehension tests – paper-pencil tests
		2.2 To build a good knowledge of vocabulary 2.3 To introduce the	*2.2.1 Vocabulary enrichment activities, quizzes and games* - Activities to enhance student-teachers' knowledge of topic-based vocabulary, phrases, phrasal verbs, idioms, etc are conducted.	2.2.1 Worksheets/Written test

		mechanics of writing	2.3.1 *Handwriting practice sessions* – TE will teach Italic writing skills 2.3.2 *Exercises on punctuation and spelling* – TE can conduct spelling games.	2.3.1 SA: Written test
		2.4. To enable them to produce original and effective written pieces	2.4.1 *Simple writing activities* - running race, mutual dictation, dicto-gloss, etc. 2.4.2 *Input on process writing* – TE makes a PPt presentation on process-oriented writing 2.4.3 *Process writing tasks* – TE can conduct following tasks to develop process writing skills among student-teachers: i. Planning: scribbling, free writing, brainstorming, mind map ii. drafting – encouraging student-teachers to produce drafts iii. evaluation/analysis – peer/self/group-evaluation using checklists and rating scales iv. Editing and proof reading exercises 2.4.4 *ICT integrated Writing sessions* – Writing different text types – letters, paragraphs, dialogues, reports and creative writing	2.4.1 FA: Assessment tasks on writing 2.4.2 Writing portfolios – indicators for assessment to be decided 2.4.3 SA: Written test
3.	Communicative Grammar	3.1 To develop accuracy in language	3.1.1 *Debate* – TE conducts a debate and elicits student-teachers' views on the following topic: 'Fluency or accuracy: Which is important in using a language?' TE provides a summary at the end.	3.1.1 Worksheets 3.1.2 Quizes 3.1.3 Written test

		3.2. To develop knowledge about language (to create an awareness about various grammar items)	3.2.1 *Grammar Practice activities* – TE involves student-teachers in various grammar practice activities (materials from Penny Ur's *Five Minute Activities* and *Grammar Practice Activities* can be made use of) 3.2.2 *Grammar games* – TE conducts different grammar games 3.2.3 *Input and Practice sessions* – TE provides input on different areas of grammar using worksheets and practice materials (TE can use photocopiable materials from Raymond Murphy's book titled *English Grammar*).	
4.	Language Functions	4.1 To help student-teachers use language in a variety of meaningful situations for communicative functions	4.1.1 *Dialogue practice sessions* – Dialogues from the book *A Foundation Course in Spoken English for the Speakers of Kannada* by Sadanand, K and Punitha, S. (2008) can be made use of 4.1.2 *Dialogue completion activities and Role plays* – student-teachers complete dialogues in groups, present and enact them	4.1.1 Oral test 4.1.2 Written test (paper-pencil)
		4.2 To provide them with a set of expressions, formal as well as informal, that can be used in everyday situations	4.2.1 *Practice sessions* – John Blundell's book titled *Function in English* can be used for providing situations and useful expressions	

5.	Exploring Language Learning Resources	5.1 To use mass media to develop language skills such as reading and writing	5.1.1. *Library work, class discussions and presentations* – Student-teachers read newspapers, magazines, cartoons and comics, stories, journal articles, etc and maintain reading logs, write reviews of the materials that have read followed by discussions and presentations in class	5.1.1 Project work – indicators for assessing project work to be evolved 5.1.2 Reading log – indicators for assessment to be evolved 5.1.3 Dictionary-based test
		5.2 To develop dictionary reference skills	5.2.1 *Dictionary activities* – Arranging words in alphabetical order, finding parts of speech, pronunciation and meanings of words, phrases, phrasal verbs and idioms, etc. Student-teachers can prepare own dictionaries with illustrations	
		5.3 To evince interest in art, craft and theatre activities	5.3.1 *Field visit and theatre show* – Student-teachers will visit an art gallery/exhibition centre, watch a theatre performance. This is followed by discussions and presentations in class	

b. Practical (70 hours)

General Note: Practical sessions are an extension of the regular theory classes. They are meant for a thorough practice of the theoretical inputs received in the regular classes. Practical sessions should give hands-on experience whereby student-teachers learn by doing. Theory classes should be coupled with practical sessions and should go hand-in-hand to have an integrated approach.

Units	Suggested Practical	Purpose	Pointers for conducting Practical
1. Spoken skills – Listening and Speaking	1.1 Tutorial classes	1.1.1 To facilitate small group interactions and individual attention in order to develop listening and speaking skills	1.1.1 TE divides the class into small groups. Each group will have tutorial classes in turns. 1.1.2 TE collects relevant CDs and makes student-teachers listen to CDs 1.1.3 TE gives them language lab experience 1.1.4 TE prepares worksheets and provides individual copies for further practice
2.Reading and Writing	2.1 Tutorial classes	2.1.1 To facilitate small group interactions and individual attention to develop reading and writing skills	2.1.1 TE divides the class into small groups. Each group will have tutorial classes in turns. 2.1.2 TE collects authentic reading passages, makes student-teachers read and complete comprehension exercises 2.1.3 TE designs interesting writing tasks and helps them complete these tasks successfully by providing onsite support and constructive feedback
	2. 2 Reading project	2.2 1 To inculcate good reading habits	2.2.1 Student-teachers collect interesting reading materials, share them with the group, select a few and write a review of them.
3.Communicative Grammar	3.1 Tutorial classes	3.1.1 To facilitate small group interactions and individual attention in order to develop good knowledge of grammar	3.1.1 TE divides the class into small groups. Each group will have tutorial classes in turns. 3.1.2 TE prepares worksheets and provides individual copies for further practice in grammar

4.Language Functions	4.1 Preparing charts/posters	4.1.1 To practise useful expressions	4.1.1 Student-teachers write dialogues (like carton strips) and display them in the classroom/on notice boards 4.1.2 They make a list of expressions (formal and informal) used for different language functions and display them on the wall board
5.Exploring Language Learning Resources	5.1 Field visit/computer lab classes/watching theatre performance	5.1.1 To understand the importance of art, craft, theatre and ICT in learning languages	5.1.1 TE facilitates these activities during the academic year by taking student-teachers out to the field or by arranging such activities at the training institute

b. Assessment Strategies

This section provides details of assessment procedures to be followed in the D Ed classroom. Assessment should be integrated with the teaching-learning processes. Hence, continuous and comprehensive evaluation (CCE), should be carried out to assess language skills and competencies.

There are two ways of conducting assessment in the classroom. One of them is formative assessment (FA) and the other one is summative assessment (SA).

Formative assessment (FA) is a tool used by the teacher to continuously monitor student progress in a non-threatening, supportive environment. It involves regular descriptive feedback, a chance for the student to reflect on the performance, take advice and improve upon it. FA can be carried out using, portfolios, assignments, groups/pair work in the classroom, role plays, presentations, debates, interviews (for speaking and listening), oral tests, written tests and group projects. Some of these assessment tools and techniques are suggested in the Theory section of this Handbook.

Summative assessment (SA) may be carried out at the end of the term/semester by conducting paper-pencil tests, oral tests or open book exams.

In addition to assessing the language skills, student-teachers' involvement in the assessment processes/activities, his/her interest in learning a language and his/her attitude towards language learning activities should also be assessed.

Rating scales, checklists, observation schedules and self-assessment tools can be used for conducting FA in the classroom. A few examples are given below for assessing different language skills:

1. (a) A 5-point scale for assessing writing ability:

Ideas expressed, logical sequence, language, mechanics (spelling, punctuation, hand writing)	
5	Has expressed relevant ideas, has organized ideas in a proper order, has used grammatically correct sentences, has spelt all the words correctly, has very good hand writing
4	Has expressed mostly relevant ideas, has sequenced ideas in a proper order, has mostly used grammatically correct sentences, has spelt most of the words correctly, has good hand writing
3	Has expressed some what relevant ideas, has sequenced ideas in an order to some extent, has used some grammatically correct sentences, has spelt some of the words correctly, has somewhat good hand writing.
2	Has expressed only a few relevant ideas, has not sequenced the ideas in an order , has used very few grammatically correct sentences, has spelt only a very few words correctly, hand writing is not neat
1	None of the ideas expressed are relevant, ideas are not sequenced in an order, has not used grammatically correct sentences, hasn't spelt the words correctly, handwriting is not legible.

(b) A 5-point scale for assessing learner's involvement in the writing process, the interest shown in the process and his/her attitude towards writing.

Involvement in the activity, interest in the process, attitude towards writing	
5	The learner has involved him/herself completely in the writing activities, has shown a lot of interest in the writing process, and has a positive attitude towards writing.
4	The learner has involved him/herself in the writing activity to a great extent, has shown same interest in the writing process, has positive attitude towards writing.
3	The learner has involved him/herself in the writing activity to some extent, has shown some interest in the writing process, has somewhat positive attitude towards writing.
2	The learner has not shown much involvement in the writing activity, has not shown much interest in the writing process, has somewhat positive attitude towards writing.
1	The learner has not shown any involvement in the writing process, does not have positive attitude towards writing.

2. Self-assessment statements for student-teachers to assess their speaking skills

Statements	Yes	To some extent	No
1. I was able to share my ideas in the group.			
2. I was able to speak fluently.			
3. The ideas I have presented are relevant to the topic.			
4. I was confident when I spoke.			
5. I used appropriate and accurate language in my speech.			
6. My pronunciation was clear and voice was loud enough.			

Similar rating scales and self-assessment tools can be used for other skills. Additionally, checklists and observation schedules can also be made use of.

Weighting for formative and summative assessments are given below:

Units	FA[1] (marks)	SA[2] (marks)
6. Spoken skills – Listening and speaking	5	10
7. Reading and Writing	5	10
8. Communicative Grammar	5	5
9. Language Functions	--	5
10. Exploring Language Learning Resources	5	--
Total[3]	**20**	**30**

[1]. Formative Assessment: On each unit, FA and SA can be conducted for more than the allotted marks above but it has to be reduced to the given marks at the end. For FA, marks should be calculated based on the best out of three FA tasks.

[2] Summative assessment: Summative assessment may include both written as well as oral tests.

[3] The total should then be reduced to 20 and 30 respectively.

1.4 Educational Assessment and Evaluation

Educational assessment and evaluation is a course which teacher trainees need to understand. The present write up aims at explaining how this course needs to be transacted by teacher educators. There is a detailed write up about the unit wise mode of transaction/Activities to be used for the effective transaction of this course paper, as well as evaluation components of this papers.

Shifts in Perspectives: NCFTE (2009) envisaged the scope of learner assessment & evaluation to be broadened so as to go beyond the limited context of syllabus based achievement testing, achievement scores are to be looked with child's overall development, and Testing should cover higher levels of objectives and not just information. This is particularly crucial to achieve the goals of right to education & to bring every child into the folds of quality education. As per the aspiration of NCFTE and the KSETEC a separate paper on 'Assessment & Evaluation' is introduced in the new curriculum.

The **shifts in perspectives includes:**

- Quantitative to qualitative evaluation
- Theory-based Assessment to Practical-oriented assessment
- Marking to Grading
- One time and single tool based assessment to Comprehensive assessment covering total personality
- Focus on the development of teacher, which requires the use of several tools & techniques.
- From only cognitive focused Assessment to Affecto-motor Assessment

Mode of transaction and assessment

Teacher educators are to remember that the list of activities suggested under mode of transaction and CCE are only suggestive and not exhaustive. Teacher Educators are free to design their own, innovative modes of transaction. Accordingly as the situation demands, device and use appropriate tools of Evaluation.

Unit	Major Objectives	Suggested activities for Transaction of curriculum	CCE
I) Concept of Evaluation	Student Teaches would be able to - 1) Understand the concept and issues related to Evaluation. 2) Explain the process of evaluation and linkages . 3) Understand Blooms(1956) and Krathwoul & Anderson (2001)Taxonomy of Educational objectives.	1) Exposition of concept of evaluation and underlying assumptions followed by interaction. 2) Discussion of terms- Tests ,Assessment, Examination (sem/annual), Evaluation. 3) Debate competition 'Is Examination an Evil or Boon' 4) Reflections of student teachers on drawbacks in present examination system. 5) Class talk on 'Open Book Examination' 6) Panel discussion on strengths & weaknesses in the present examination system 7) Narration/ exposition of the process of Evaluation & the linkages between objectives, learning experiences (activities), techniques & tools.	1) A unit test may be conducted to test the conceptual clarity 2) Project/ Assignment assessment of (both process and product. 3) Post test may be conducted after class talk. 4) Check lists & rating scales may be used to record the extent of (quality of) participation in the discussion. 5) Self assessment & peer assessment ratings also to be used in case of practicals.

		8) Reading of the book Taxonomy of Educational objectives (Bloom) and Revised Taxonomy (Krawthwol & Andreson-2001), presentation of reflections on changes in the revised taxonomy. 9) Assignment /project of writing specifications & preparing a unit 10) Guest speech/ class talk on constructivism based learning strategies & Evaluation Viewing video film- 'Appu-pappu' and followed by reflection **(You are free to design your own activities over and above those suggested here) .**	
II) Types of Assessment	1) Able to understand continuous and compressive evaluation. 2) Able to distinguish: -Formative and Summative assessment -Process and Product assessment -Teacher made test & standardised test 3) Use these procedures in the evaluation of students progress	1) Lecture/Narration on the concepts (ppt) in the Unit 2) Presenting the material available on webs and reflecting over 3) Down loading the manuals/Handbooks related to evaluaation and making group presentation. 4) Presentation by teacher educator followed by teacher trainee interaction on process & product assessment 5) Presentation/Assignment on continuous & comprehensive evaluation (By referring to NCF-	1) Unit test may be conducted to test the conceptual clarity. Open book test may be tried out. 2) Reflective journal (process & product assessment) 3) Check list & rating scale to assess the quality of participation in preparing instructional/material/Aids 4) KWL chart may be used for each activity followed by interaction & feedback. 5) Preparing Anecdotal record if necessary & considering it

		2005, NCFTE-2009 & other documents - ನಿರಂತರ – DSERT) 6) (CCE-Ele.Edn.) 7) Getting acquainted with a few standardised tools (Intelligence test, creativity test, attitude scale, memory & aptitude tests & make presentations) 8) Presentation using "Moodle" software of CCE. 9) Viewing video film-CCE-UNICEF followed by reflections.	for assessment. 6) Self assessment & peer assessment may be used in case of practical activities.
III Tools & Techniques of Evaluation	1) Understand & use the techniques 2) Get acquainted with specific characteristics of a variety of Evaluation tools and mode of using them appropriately 3)Develop /device suitable CCE tools and use them	1) Exposition of techniques followed by student teachers' reflection. 2) Group discussion (2 groups) may be organized on Assessment of Cognitive & Affecto motor aspects of learning/Brain storming may also be used. 3) Indicators in each area /aspect may be drafted/identified and appropriate tool for assessing the character & parameters be identified 4) Construction of an Achievement test and identify difficulty index on a small sample basis. 5) Construct a diagnostic test to identify the deficiencies in a particular Unit. 6) Seminar presentations on different	1) All the tools mentioned in this unit may be used for assessment of student teachers' progress where ever found relevant 2) Self assessment & peer assessment may be used to assess their performance & record objectively. 3) View the film "Taare Jameen par' and discuss the attitude of teachers & father of the boy(hero) & feedback mechanisms adopted & Reinforcement given by the new teacher (AMIR KHAN) reflections.

		types of tests 7) Narrating the features of constructivist approaches is teaching and modes of assessment. 8) Class talk on constructivist approaches & modes of Evaluation, followed by interactions. 9) Reflective journal may be maintained which gives mind map of special features of various tools which may be used in relation to constructivist strategies. 10) Student teachers are to prepare scoring guides i.e. sets of expectations (Rubrics) for student assessment. 11) Preparing Mind Map Album of various tools specified in this unit. 12) Workshops to be organized to design tools to assess the characteristic of students teachers 13)Development of observation schedules & interview schedules for recording the performance & view points of trainees in various activities. **(You are free to design your own activities over and above suggested here) .**	
IV)Remedial measures and	1)Able to provide remedial teaching. 2)Understands the importance of	1) Presentation of their reflections on the administration of Achievement	1) The tools mentioned in Unit-3 may be appropriately

feedback mechanism	objectivity & transparency in the assessment. 3)Understands the procedure of formative assessment	& diagnostic tests & their findings during teaching practice / internship. 2) Lecture presentation on Feedback, its importance & Remedial mechanisms. 3) Planning remedial measures (individual as well as group) action plan preparation. 4) Teacher trainees be encouraged to locate academic problems and find out solutions through Action research. 5) Watch movie *"Chainnari Mutta'* and reflect up on spoting of talent & the remedial measures adopted by the coach in the film. 6) Read Book '*Tothochan*' and reflect upon the problems faced & the special measures taken by teacher for the optimum progress & allround development of students 7) Adopt self assessment & peer assessment in practice teaching & internship. 8) Preparing Rubrics (scheme of assessment) for an achievement 9) Lecture presentation on the necessity of transparency & objectivity in assessment 10) Maintaining cumulative growth journal indicating the periodical	used as & when required to assess (cognitive focused) (affecto-motor) 2) An open book examination may be tried out regarding the acquaintance of trainees regarding various tools & their appropriate use in diagnosis & remediation. 3) Action research report may be assessed

		growth (formative assessment) of each learner **(You are free to design your own activities over and above suggested here) .**	
V) Reporting Results	1) Understand & demonstrate simple statistical analysis and methods of representing data in the pictorial form. 2) Get familiarized with tools of ICT- Computer, Internet, Email Mobile etc for Recording, documenting and objective reporting of grades awarded. 3) Able to convert marks into grades , vice versa and preparing grade point averages. 4) Trainees get familiarized with preparing progress card of students and entries to be made in cumulative records.	1) Conducting an achievement test, classifying scores and representing them in variety of graphical forms. 2) Comparing the performances of two classes or schools in achievement test. 3) Preparing Rubrics (scheme of assessment) for self assessment as well as teacher assessment. 4) Assessed answer scripts be made available for all students circulation with a view to have transparency and also know their areas to be improved. 5) Using mobiles to record the lesson rating of self assessment & send the same to method master (SMS). 6) Taking free online workshops available on internet in statistical analysis & make reflections. 7) Computing PROP. INDEX for practice lessons and using them for documenting progressive improvement. 8) Exercises be given for converting marks into grade & grade point averages. 9) Group discussion regarding the progress report used in central schools and State Schools in Karnataka 10) Practice exercise of making entries in	1) All these curricular transactions may involve situational use of variety of tools (referred in previous chapters) for making assessment of progress of teacher trainees/students. Appropriate use is to be assessed 2) Assignments/projects/participation in discussions and prompt maintenance of records are to be assessed by considering both process as well as product components. 3) Unit test may be conducted to know the theoretical understanding as well as practical applications.

		Cumulative record & maintaining progress reports. **(You are free to design your own activities over and above suggested here)**.	

Suggested Readings

Bhatia, K. K. (1977). *Measurement and evaluation in education*. Ludhiyana: Prakash Brothers Publishers.
NCERT. (2011). *Continuous and comprehensive evaluation scheme for upper primary classes.* New Delhi: NCERT.
Dandekar W. N. (1984). *Evaluation in Schools*.

DSERT. (2011–12). *ನಿರಂತರ – ಕಲಿಕೆಗೊಂದು ಸಾಧನ.* Bangalore.

Sharma, S. (Ed.) (2006). *Constructive approaches to teaching and learning*. New Delhi: NCERT.
Srivastava, H. S. (1989). *Comprehensive evaluation in schools*. New Delhi: NCERT.

Advanced Readings

Airasian, P.W. (ND) *Class room assessment: Concepts and applications* (4th Ed) New York : McGraw – Hill.
American Institutes for Research. ( ) *Continuous assessment – A practical guide for teachers.* IEQ Project.
Judith, G. & Cowarl, J. (2003). *A handbook of techniques for formative evaluation*. New Delhi: Crest Publishing House.
Linn, R.L. & Gronlund, N.E. (2000). *Measurement and assessment in teaching* (8th Ed).

Nevo, D. ( ). *School–based evaluation: A dialogue for school improvement*. Oxford : Pergamon.
Peterson, K. D. (1995). *Teacher evaluation*. Corwin Press. Inc. California.

Robliyer, M. D. (2008). *Integrating educational technology into teaching*. (4th Ed). New Delhi: Pearson Education.
Thorndike, R. M. & Thorndike, T. C. (2011). (8th Ed): *Measurement & evaluation in psychology and education*. New Delhi: PHI learning Pvt. Ltd.

List of Videos

- CCE film – UNICEF
- PPT-CCE- Indian School Darsait (2011) – Teachers Training Programe.
- Vikas Publishing – CCE made simple
- Placing CCE in a pedagogic frame – (CIEFL professor)
- What is CBSE CCE
- CCE – take a tour – ppt

Children's Films List

- *Tare Zameen Par* (Hindi)
- *Halo* (Hindi)
- *Chinnari Mutta* (Kannada)
- *Gubbachigalu* (Kannada)
- *Appu Pappu* (Kannada)
- *Hejjagalu* (Kannada)
- *Malli (*Tamil)
- *Kuttichatan* (Malayalam)
- *Gopi Gai Bhaga Bhai* (Bengali)

List of Websites

En.wikipedia.org/wiki/continuous-and-comprehensive-eval…
Cce.icbse.com/cbse-cce-guidelines
Indiatimes.com/continuous-and-compre
Wikieducator.org/CCE-Article
Delhi.gov.in/WPS/WCM/CCE
www.sil.org/longualinks
http:ugc.europa.eu/
www.a.bgru/maner/domains/formativeeval.
www.league.org/getting results/formeval.html
'Moodle' software for CCE

1.5 Teacher Development Studies

1.5.1 Arts in Education

Shifts in Perspective:

The D.Ed Review committee voiced a "need to integrate Art education, Aesthetic education, Music education, Value education, NSS, and Cultural/Literary education," to help reduce the load and to make the course "attractive." It also called for a balance between the scholastic and non-scholastic aspects of the syllabus, and for an understanding of "teaching as a performing art." These three impulses of the review process suggested an overhaul of the arts education component that is currently shaped around capacitating teachers only for art-based classroom activities. While imparting aesthetic knowledge to student teachers is of great importance, in absence of integration with other elements of the curriculum, arts education loses its full potential as an effective medium to address cultural diversity and creative learning. Reframing the arts education curriculum to address the goals of "imagination," "communication," and "reflection" means that the arts lose their purely aesthetic orientation and become involved in sensitizing teachers to their own communicative potential, the formation of teacher self-identity, and the challenges of inclusive classroom.

Connected with the broader goals of NCF (2005), and NCFTE (2009), Arts Education will sensitise student teachers towards:

1. Multiple ways of seeing: nurture multiple intelligences in the classroom, and acknowledging cultural, social, linguistic, and learning diversities in the classroom.
2. Connecting education to life: validate the real experiences and emotions of teachers and learners, create self knowledge, and "localise" education.
3. Creating experiences that will yield classroom application: using the arts to enable effective content communication and open up the possibilities of creative and critical thinking among learners.

Explanation of Terms used

Playfulness is a way of being, and the intention of this course is to enable teachers to be playful in the classroom. Play allows the teachers to be freely inventive without concerns about goals and outcomes, access impulse rather than reason, take risks, fail and try again in an environment that is free of judgment. When we play we are mindful about what we feel rather than think, and reconnect with our personal selves.

Play in Art draws on those resources and methods that artists use to widen their repertoire of expression, and gain access to the self to create works of art. This arts education course is based upon knowledge in the arts about practicing, exercising and imagining.

The following note on "play" is adapted from Thomas Cabaniss, "The Uses of Play," *Teaching Artist Journal* 3 (4), 241–248.

[Play] is a way of inviting learners into a deeper state of artistic expression. It is a platform for imagining and for entering into an artistic discipline with all permissions granted. So often, deep artistic expression seems unavailable to us because we feel we have not been given license. Play offers us cover. The very dismissive assumptions that we associate with play also provide a mask that we can wear as we explore. In play, we can be other than who we are. It is not "serious." But as a natural outcome, through these explorations, our personal selves re-emerge.

In order to develop productive reflective questions for participants [the teacher educators], have to be completely engaged in what they are doing. Since their questions will arise out of the play, they will need to attend to it, analyze it on the spot (a sort of improvisation in itself), and then formulate questions that help learners do the same. How do they develop these abilities? By doing. The more they watch, listen, notice, and think about what they notice, the better they will be able to invent as they go. By nurturing this inner flexibility, they will develop the ability to respond and take advantage of what educators refer to as the "teachable moment."

Experiences of deep, meaningful artistic play can help develop a teacher's inner flexibility. This requires:

- consistent experience of working and playing in the arts;
- the ability to set and maintain the right conditions for play;
- a wide vocabulary of playful warm-ups and strategies;
- an appreciation of the deep feeling that can be experienced in play;
- the ability to notice and understand what happens in artistic play;
- the desire to help students notice and understand their own artistic play;
- strategies for pacing oneself in the use of play.

Mode of Transaction

	Units	**Major Objectives**	**Suggested Activities**	**Suggested Assessment strategies**
1	Orientation to Arts	1.1Developing an awareness and appreciation of various art forms and their cutural bases	1.1.1Video presentations 1.1.2Lecture/discussions 1.1.3 Practicals: Visit to performances, museums, and arts-based alternative schools	• Participation in discussions • Observation schedules and checklists can be maintained. • Preparation of visit reports to be assessed
2	Contextualizing the Arts	2.1Familiarising student teachers with the background of arts in education in India and across the world, 2.2 Introducing student teachers to the history and theory of art practices within educational spaces	2.1.1Films and documentaries on arts education project across the world and in India 2.2 lecture/discussion on key writings on arts education. Students to share different forms of art they have experienced.	• Participation in discussions to be assessed through observation schedules and checklists • Classroom presentations

3	Arts as "PLAY"	3.1Understanding the role of the arts (movement, sound and visual) as "play" in self-development, communication, and inclusive environment.	3.1.1 PPTs, Videos and Discussions. 3.1.2 The student teacher is exposed to various modes of "play" through arts-based activities/workshops organised through the categories of "Movement," "Sound," and "Visual."The objectives of play include "play as imagination," "play as communication, and "play for reflection." 3.1.3 Each of the activities will be followed by a de-briefing session for discussion and analysis.	• Self-reflective journals and visual documentation of learning process (Continuous Evaluation) • Group Assessment for participation and communication of team members (Comprehensive Evaluation)
4	Mediating Arts and Aesthetics with Teaching and Learning	4.1 Student teachers will develop arts-based practices through incorporating a variety of modes of play.	4.1.1Students can choose a subject that has relevance to their lives, communities, culture, society or classroom and integrate that to subject areas 4.1.2 Student teachers can create a series of content-based pedagogical strategies and materials by integrating arts into subject areas within the syllabus. These classroom applications are not standardized materials that carry over from one generation to the next, but an indication of the teacher's unique creative and pedagogic capabilities.	• Group projects • Feedback to the group • Group assessment • Rating scales to assess the projects undertaken, understanding developed

Mode of Assessment
The assessment will include the following components:

1. **Self-reflective journal** that will include
   - A detailed record of sessions
   - Reflective analysis of activities
   - Insights gained
   - Linkages with D.Ed. curriculum and school subjects with examples

2. **Semester end evaluation** by resource person/teacher educator. The following list may be addressed while evaluating student teachers:

   Activities
   - Regularity
   - Participation and Interest
   - Self discipline
   - Interpersonal adjustments
   - Organisational skill
   - Confidence

   Performance
   - Attitudes towards work
   - Initiative taking
   - Originality and resourcefulness
   - Skills acquired
   - Flexibility and adoptability
   - Problem solving
   - Creativity

Reflective Journal

- Description of sessions
- Analysis of activities
- Linking dramatics to pedagogy with examples
- Reflections and critical assessments of dramatics in education
- Overall presentation, including the arrangement and look of the journal, as a record for future reference

3. **Group Assessment** for participation and communication of team members

Practicals/Activities

The syllabus is structured around the objectives of imagination, communication and reflection which are seamlessly organized through "play" with movement, sound and visual to enable creativity and classroom application. As the teachers go through a progression of activities through the year they build up from basic levels of engagement with "movement, sound and visual" to more application-oriented approaches. Each session (or combinations of sessions) will be followed up with a debriefing session. Activities are structured along the following components:

1. Ice-Breaker: Awareness of the Self
2. Pre-Play: Awareness of the Senses
3. Play : with sound, visual, movement
4. Conversations between Visual, Sound and Movement
5. Play in the Classroom

Examples

I. Ice-Breaker

Activity: Choose three visuals and share with a partner how these visuals speak to you. Participants will respond to queries such as Why do these three visuals speak to you? What did you experience while listening to others talk about themselves through their visuals? Did you discover something about yourself while speaking to your partner? How do you feel now—about yourself, about your partner—after the exercise? What did you learn about communication?

2. Pre-Play of Senses

Sound Activities

1. Have students walk through the campus and focus on the sounds they are hearing. Students return and describe the quality of sounds, and report on the sounds they had not noticed before.
2. The facilitator strikes the same note on a variety of instruments. Also, different notes will be struck on one instrument. Stretching of notes, playing with tonal qualities of sound will lead to observations regarding pitch, volume, tonality, texture, emotion, etc.

Visual Activities

1. The activity follows Jackson Pollock's philosophy by painting a large 5'x7' canvas mural with techniques similar to Pollock. Pollock would be seen using objects other than brushes as well. He would dip sticks in paint and drip it all over the canvas. He coined this technique as action painting. Students are encouraged to use this technique. They should feel free to rub their hands on the canvas and to use whatever they can find around them. It's okay to get messy. Emphasis should be to focus more on the act of painting rather than what they'd like to paint and to connect with their inner energy. Materials: Large canvas or wall space, acrylic or tempera paints and supplies.

2. Choose one image to which you are drawn from a collection of photographs. Explore and record the details of the photograph in terms of light and shade, centre and periphery, foreground and background, texture, line, colour, shape and composition. Interpret and record gesture, expression, mood, feeling, relationships, setting, and the possible context and history of the photograph. Did you read anything into the photograph, for example, about injustice, courage, risk taking, suspense, and so on?

Movement Activities

1. Participants experience their body through movement exercises such as slowing down of the body, lowering the centre of gravity of the body, moving at different paces, and application of pressure points to different parts of their bodies. Students will be encouraged to articulate their experience of the mobilization and release of their bodies, and discover the fluidity, ambiguity and impulsiveness that characterise "bodily" intelligence through these exercises.

2. Two participants will create simple movements with each other—such as walking towards each other and shaking hands—that are slow paced, normal, to fast paced. Observers will record changes of perception that occur with changes in the pace of movements.

Play
Sound

1. In a group circle with participants touching shoulders, one person initiates a sound. Other members respond to the sound one-by-one till the circle is complete. The facilitator then moves some people forward and back. The person moved is always to the right of the person who is receiving the sound. The sound continues for another round. Debriefing questions include: How do you feel responding to another's sound? Did you try to create a good sound? Were you concerned about judgment? Did you think your response to the sound you heard was wrong? Did you react differently to the sound as it moved through space? The participants learn how to be creative with sound, to play with sound.

2. In a circle, participants throw invisible balls accompanied by sounds. The first person tosses the ball and makes a sound. The second person catches the ball and mimics the same sound. The second person then throws the ball to another person, making a new sound, which is repeated by the receiver. Eventually, more than one ball can be passed around the circle at the same time. Form a circle. Explain that you have an invisible ball. Toss it to someone and have him/her to catch it. Then have the person throw it back to you. Further explain that the ball makes a sound. This time throw the ball with a sound-'Whee-ee'.

Coach the receiver to repeat the sound. Have that person throw the ball to someone else with a new sound, which is echoed by the receiver, and so on. After the group has tossed the ball for a while, ask for feedback-'How do you feel?' 'Are you censoring yourselves?' 'Why?'

Visual

1. In pairs, participants draw a face or another picture, alternating one line or feature at a time. Then they give it a title one letter at a time. Distribute pens and papers. Explain that the task will be for each pair to draw an image face, alternating one line or feature at a time. As soon as someone hesitates, the drawing is finished. Then the pair will give the drawing a title, alternating letters until one person hesitates. The participants respond to questions such as: were you pleased with the result? Did you know when to stop? Were you able to respond to the emerging picture or were you directing the activity? Were you a follower or a leader in this activity?

2. Prepare a large box of materials such as images from magazines and newspapers, objects from nature, beads, and other small objects. Arrange participants into groups of ten for a group collage activity. Each member adds material on a large piece of paper, placing it wherever they choose. The activity continues till the group decides to stop. The groups respond to each others' collages. Some of the debrief questions include: what was the impulse behind your contribution? Did it change when it was your turn? What reaction did you have to others' contribution—negative or positive? Did you have an end picture in mind? Do others' contributions act as a barrier?

Movement

1. Mirror exercise: In pairs, participants 'mirror' each other- moving at the same time as if one were the other's reflection. The two take turns leading and following, and then finally attempt to move together with both leading and following at the same time. Have the participants form pairs. Have the pairs face each other, and pick A and B. Assign B's to be leaders and A's to be followers. Explain that any movement that leaders make, followers will copy as if they are a mirror image. (If leaders move their right hand, followers will move their left hand as they face the leaders). After a few minutes of B's leading, instruct the pairs to switch leaders. After a few minutes of A's leading, instruct the pairs to pass the lead back and forth at their own discretion until they themselves are unsure who is leading and who is following.

2. Dragon and its tail: a tag game, with the idea of flexibility and control in a group setting. One person initiates the game by tagging a person who then joins him as the tail to tag the next. The purpose of the game is to elongate the tail, and have the group members experience movement in tandem with the group.

Conversations between Visual, Sound and Movement

Sound and Visual: Facilitator or participant chooses a large image and sets up a relationship between Visual and Aural elements. For example, the lighter the colour, higher the sound; lines and curves to refer to different ways sounds move (up or down the scale, etc.). Facilitator moves his/her finger across the image and the group responds by giving "sound" expression to the movement.

Sound and Movement: Participants coordinate movements as a group in response to sound cues. The facilitator sets up a relationship between movement and sound, such as linking pace of movement to the ascending and descending order of a scale, and then vocal cue that the groups responds to with movements. This activity can be reversed to foreground movement cues for aural response.

Movement and Visual: Form a group of 5. The first person creates a frozen stance and the larger group of participants gives their interpretation of it. What is the person doing, thinking, feeling? The second person adds his frozen stance to the first. Participants then interpret the picture that is thus formed. This is repeated until the picture formed by all five participants has been interpreted. Then each person in the group explains what their intention was when they took their stance. What picture were they trying to build? All participants then discuss possible mismatches between interpretations of the 'observer' group and the intent of the 'producer' group. What could the members of the 'producer' group have done differently to clearly communicate their intent visually?

Play in the Classroom

1. Visualize a story in images. Open it out to other interpretations. Enact multiple stories out in a group. Debrief on how visualizing a text, acting out the visuals can change the text.
2. Break students into groups of ten. They go out and record sounds from outside the group makes decisions about what sounds to use and where to place different sounds in the audio collage to create an audio picture of the village. Groups will respond to each others' collage and understand the choices they have made.

3. Rorschach Ink Blots and Poetry: Individuals should take a piece of paper and fold it in half and open it back up. They should then drizzle paint all over the paper (at random.) They should then fold it back at the crease and press down on the paper, making sure all the paint has been pressed well. The paper should then be opened and the symmetrical design observed. The students should then trade with someone and write a poem or short writing describing what they see in the ink blot. This is a good way to increase comfort in artistic practice. It also increases comfort in visual interpretation and expression. Materials: Ink of various colors (acrylic paint can be used too) and paper.

Closing Activities

1. Giving a Talk: Extempore two minute speech on a topic with an emphasis on a personal connection with the topic rather than a textual approach. For instance, chocolate, or toy.
2. Visualising or Mapping out the Ideal School: "What is the school you want to be in ten years?" Participants in groups will imagine that space through articulating their ideals. They can create a visual map of this school.
3. What change would you like to bring about to your work environment?

Create a circle of six people. Each person writes out their thoughts about the question above and passes it to the next person. Each piece of paper goes around the circle and comes back to the person who wrote the first thought. Each piece of paper will have six thoughts on them. Each one cuts up the six thoughts into strips. One of the strips goes into her pocket. She will pick phrases that are meaningful to her from the five remaining strips and create a poem. The strip from her pocket becomes the title of the poem.

1.5.2 Reflective Practices: Action Research

Introduction

One of the major preoccupations of quality education has been promoting reflective practices among all practitioners. A reflective professional can contextualise his/her knowledge to attend to issues that arise in his/her workplace. Maintaining journals, teacher development groups, peer interactions, reflections over student portfolios, or any feedback obtained through continuous and comprehensive evaluation could be facilitating reflective practices.

Action research is one such technique that facilitates reflections among teachers. Action research perhaps subsumes all other techniques because it is a way of thinking; it is an attitude and makes use of all available resources for addressing problems. It is desirable that a student teacher is prepared with action research know-how so that when entering the profession he/she is competent enough to take on the challenges well. Hence this paper deals exclusively with action research. It is designed with a view to expose the student teachers to the concept of action research as well as provide some practical experience in conducting action research during their internship. The theoretical and practical inputs given is hoped to enhance the professional competence of the would be teachers.

Shift in Perspectives

The change in the nomenclature has a lot of significance to our practices. Action research is not the only tool for facilitating reflective practices, though it has remained a major component in Karnataka for the past five years. There are other tools like journals, diaries, peer observation and feedback, teacher development groups, reports of CCE, and student portfolios for teachers to reflect over their own classroom practices. Action research might include all these. However, these can exist without being a part of action research. All of them make practitioners think over their own classroom transactions against a set of objectives and see for themselves where they succeeded or failed. Both are valuable information. In reflective practice, every practitioner grows on his/her own over a period of time. The tools listed above give a continuity to whatever a practitioner does. Action research on the other hand mainly focuses on addressing an immediate issue.

Action research still remains the major focus because it involves some amount of skills development. So as in the previous curriculum, conducting and submitting an action research report has been made compulsory for all students. However, it is placed in a larger context of reflective practices so as to create a reflective teacher rather than one who works to complete the syllabus.

Definitions/Explanation of terms used

The following reflective tools have to be first understood by the teacher educators. Along with brief explanation, useful references have also been annotated below. It is desirable that teacher educators browse through all these sources and form a clear idea of reflective practices, its need and importance.

Teacher Journals – A diary maintained by teachers which contain notes on his/her classroom transactions. It is basically reflective. It documents special events, success stories, short explanation for not being able to do something as planned, future plans, important questions that need further exploring etc. If a teacher goes through the journal after sometime, he/she should be able to trace one's own professional growth. On the basis of this, future course of action can also be planned.

Teacher Development Groups – A small group of teachers within a school or from a few schools, who have common professional interests. The group meets at regular intervals and discusses issues related to the profession of its members. There is a lot of sharing of experiences, debating on issues and learning.

CCE Reports – Documents maintained under continuous and comprehensive evaluation provide lots of insights into student learning patterns, teacher effectiveness and other classroom practices. It is necessary that such information available through CCE is used for reflections and planning future course of action.

Student Portfolios – Portfolios maintained for each of the students contain a compendium of various activities undertaken by the students inside as well as outside the classroom for constructing their learning. It includes showcasing the best practices and achievements of learners, which is selected by students themselves. It could be the assignments submitted, test papers, write ups on various issues, reflections of self, parents, peers and teachers. A portfolio gives a comprehensive picture of a student's growth. It is also reflective of the teachers' efforts to facilitate learning.

Formative Assessment

The assessment for this paper is not just based on one report submitted at the end of the project. It has been made continuous so as to enable student teachers to reflect over their own learning and bring changes in their practices. This paper proposes to give a hands on experience in what it preaches. ICT and Art Education inputs are thought of as useful tools in not only conducting action research, but also in gathering evidences of student involvement in the task. Thus action research processes come to the forefront rather than just the report. The entire learning experiences to be given are conceived holistically and in an integrated fashion to make them relevant to learner contexts.

Use of ICT

1. Browsing the internet for more information and reports
2. Preparation of tools using WORD PROCESSORS
3. Preparation of the report using WORD PROCESSORS
4. Use of spreadsheet for keying in data and its analysis
5. Networking of student teachers and resource persons
6. Creation of learner groups in the web. The discussions done in the group will be automatically recorded and available for future use.
7. Use of mobile phones for recording and reflecting over classroom practices.

Art forms : can be used meaningfully for preparation of support material/TLM/activities. In the course of an action research, the teacher may have to prepare learning materials, design a few activities like games or role plays. What the student teachers learn in Art Education classes can be brought in here. For example, through role plays and even one act plays, dialogue practice can be provided in a more experiential manner.

Mode of Transaction

1. Lecture discussions/presentations on various types of tools that facilitate reflections, steps of action research, use of ICT and art forms and other aspects
2. Reading action research reports and discussion
3. Creating networks of student teachers and resource persons to create a forum for online discussions.
4. Classroom activities – small group discussions on various aspects, preparation of proposals
5. Conducting an action research during internship
6. Post internship discussions – presentation of reports and reflections

Note: Transactional strategies have been detailed out in the curriculum unit wise.

S. No.	Units	Major Objectives	Suggested activities and materials for classroom transaction	Suggested Assessment techniques
1	Reflective Practices	1.1 To enable understanding the concept of reflective practices and action research	• Familiarising learners to the concept of action research through general discussion. • Presentation and talk • Reading of action research reports, discussion in groups and submission of abstract reports	• Assessment on the basis of the abstracts of Action Research reports read and presented in the class. • A rating scale could be used for assessing different aspects of the presentation - reading, summarising, presentation, generating insights and so on.
2	Action Research Proposal	2.1 To prepare an action research proposal	• Preparing an action research proposal • Presentation on need and relevance of action research proposal	• Assessment on the basis of the proposal prepared. • A rating scale for assessing the quality of different components could be developed.
3	Conducting action research in school	3.1 To gain practical experience in conducting action research	• Lecture presentations • Discussions on procedures • Student teachers conduct action research in schools following the steps suggested.	• To be assessed using a checklist for involvement in conducting action research, tools and support material used • Suitable rubrics could be developed
4	Reflections, sharing and further initiatives	4.1 To relate action research experiences to professional development	• Group work for better understanding of preparation of reports, generation of graphs etc. • Individual work - Report writing • Presentation for sharing experiences	• Based on the quality of the report, steps followed, analysis and interpretation of data, reflections done. The conviction with which the results are shared to be noted. Participation in group work for sharing reflections to be assessed using an observation schedule and/or a checklist.

Unit wise assessment schemes

Unit 1 – 5 marks (For the report submitted) Both process and products are to be evaluated.

Unit 2 – 15 marks (For the action research proposal prepared). Both process and products are to be evaluated.

Unit 3 – 15 marks (For involvement in conducting action research, tools and support material used - to be assessed using a checklist). Both process and products are to be evaluated.

Unit 4 – 15 marks (10 marks for the quality of report submitted, 5 marks for presentation)

Total : 50 Marks to be reduced to 25 marks.

Suggested Readings

SSA. (2006). *Kriya Samshodhane Tarabethi Kaipidi* (Action Research Training Manual). Bangalore: Karnataka.

This book is a comprehensive handbook for teachers conducting action research. It deals with theoretical aspects along with examples. This book has been supplied to all government schools and almost all working teachers in government schools in Karnataka have been trained in Action Research.

http://www.teachingenglish.org.uk/transform/teachers/teacher-development-tools - This site maintained by the British Council gives a fairly good idea of teacher development. Though the specific reference here is ELT, the ideas are equally applicable to other subjects.

http://rmsa.karnatakaeducation.org.in/?q=forum - The Subject Teacher Forums that have been started under RMSA provide space for teachers to share their experiences and problems faced. Though the focus here is on high school classes, the discussions are quite beneficial to all teachers. Anyone can become a member of these forums.

http://wikieducator.org/ACTION_RESEARCH_AND_RESEARCH_IN_GENERAL - This web page is maintained by DSERT for the benefit of all elementary teacher educators. There is a lot of information on Action Research and other types of research.

1.6 Physical Education and Games

This course is designed to provide teacher trainees an insight into the movement education and to develop the competencies related to the games and sports, so as to effect cognitive developments along with psychomotor developments.

1. **Shift in perspective from previous curriculum**

- The subject of study is titled as *Physical education and Games* for the first year of the course.
- The approaches and the methods employed in Movement Education are emphasized in teaching Games and Physical education activities.
- Special inputs are given to guide the student teachers through *Basic Movements- locomotor, non-locomotor and manipulative,* so as to emphasize interdisciplinary nature of the subject across subjects like language, arithmetic and science.

2. **Explanation of Key terms**

i) Movement Education:

The type of physical education existing in Lower Primary Stage of our education system is mainly activity centered programs. The rigidity of traditional free play and conventional games needs to be flexed by shifting the emphasis from activity to child. A child centered program needs to be individualized program. Movement Education satisfies these requirements. The approach and the methods employed in Movement Education bring out the desired verbalizing and cognitive objectives along with affective and psychomotor objectives. In Movement Education, the content of Physical Education is re-grouped and defined using the terminologies focusing on different aspects of movement learning.

ii) Locomotor Movements:

Locomotor movements comprise the movements like walking, running, jogging, jumping, hopping, crawling, climbing, gallopping etc., In Locomotor movements, the entire body moves from one place to another place. The distance is unimportant.

iii) Non-Locomotor Movements:

Non Locomotor Movements comprise the movements like, sitting, standing, stretching, twisting, rotating, bending etc. which are basically connected with postures. In Non-Locomotor Movements, no change in place is involved, although the body may be very active. As long as the weight of the body remains over its base, feet, hands and feet, or other body parts and that base does not move, there is Non-Locomotion taking place. The activities are best characterized as efforts to balance, to move various parts of the body or of suspension.

iv) Manipulative Movements:

Manipulative movements comprise the movements like ball catching, throwing, kicking, striking, hitting, etc. When objects are handled, they are manipulated. They may be held, propelled or caught in some fashion. The distinguishing characteristics of manipulative movements is the focus on the management of some kind of an object, be it a ball, rope, hoop, or something else.

3. Mode of Transaction

Unit outlines of the curriculum are explained in brief along with broad objectives and few suggested activities. The activities suggested here are by no means exhaustive. Teacher educators have to build on further and use those activities which are best suited for their students in their context. It is desirable that the teacher trainees are exposed to all possible forms of activities, so that teacher trainees become well informed and trained.

Theory

Sl.no	Units	Major objectives	Suggested Activities	Suggested evaluation strategies
Unit 1	Movement education –Aims and Objectives. Basic Movements-concept and definitions.	To make student-teacher to, 1. Understand the aims and objectives of Movement Education **2.** Understand the Concept of Basic movements, and the activities in Basic movements.	1.Group discussions 2. Films and videos of basic movements and games of lower primary school children. 3. Recalling the childhood trial and error learning experiences of teacher trainees. 4.Reading of relevant books and articles	Paper -pen Unit test of one hour duration on each unit. Teacher educator can decide on the types and number of questions.
Unit 2	Games and Rhythmic. Methods of teaching	To make teacher trainees to, 1. Understand the objectives, rules and skills of Minor Games, Major games and Rhythmics. **2.** Understand different methods of teaching.		

Practical

Sl.no	Units	Major objectives	Suggested Activities	Suggested evaluation strategies
Unit 3	Basic Movements- the activities and assessments	To make teacher trainees to perform and asses, 1.The Locomotor Movements 2.The Non Locomotor Movements 3.The Manipulative Movements	I. The fallowing activities can be practiced, along with grading techniques, 1. Walking, running, jogging, jumping, hopping, Crawling, climbing, galloping etc. 2. Sitting, standing, stretching, twisting, rotating, bending etc. which are basically connected with postures. 3.Ball catching, throwing, kicking, striking, hitting, etc. II. Five lessons to be done during internship period	Qualitative assessment can be done for 25 marks on each unit. Indicators for the assessment can be decided by the teacher educators.
Unit 4	Games and Rhythmic - the activities and assessments	To make teacher trainees to perform and assess, 1. The skills of Minor Games, Major games and Rhythmics.	I. The fallowing activities can be practiced along with grading techniques, 1. Five Circle games 2.Five Relay games 3.Five Combative 4. Five Aerobics, 5. Five Major games 6. One Group Dance , one table of Mass Display Exercises II. Five lessons to be done during internship period	

4. Mode of Assessment

Assessment of this Course is internal. Care has to be taken by teacher educators to prescribe indicators for assessing various qualitative components of student teachers' learning.

Units1and 2: Two Unit tests of one hour duration for 50 marks can be administered, and the total marks can be computed for 50.

Units 3 and 4: Qualitative assessment can be done for 25 marks on each unit. The fallowing Indicators can be considered,

1. Interest shown in learning the activities
2. Ability to perform the activities
3. Leadership exhibited in organizing the field activities during practical sessions
4. Confidence and perfection in conducting the lessons
5. Emphasis on interdisciplinary learning outcomes

Each of the above indicators can be graded on a five point scale for each of unit3 and unit 4.

SL.NO.	ITEMS	ASSESSMENT
1.	Two unit tests in theory	2X25:50 marks
2.	Qualitative assessment of two units in Practical's	2X25:50 marks
	Total:	**100 Marks**

Note: The marks out of 100 is to be reduced to 50 for entry in the statement of Marks

****

Annexures

Annexure A: Check list

It is the simple tool of the evaluation which can be used to record and evaluate the presence of several characters/ behaviors in students. Check list calls for a simple 'Yes-No' judgment in which, whether the characteristic is present or absent is recorded. A check list can not be used when the degree of presence or absence (how much/high or low) of a character is important in taking decisions. In the area of personal – social development the check list can be a convinient method of recording evidences of growth towards specific learning outcomes.

- Ex: 1. In the area of 'working habits' a primary teacher might list the following behaviours

• Follows directions	Yes / No
• Seeks help when needed	Yes / No
• Works cooperatively	Yes/No
• Shares materials with others	Yes / No
• Completes the work in time	Yes / No
• Cleans work place	Yes / No

Check lists are also useful in assessing those performance skills, that can be divided into a series of specific actions

Ex: 2. Skill of conducting the experiment

- Selects equipment Yes / No
- Sets up equipment Yes / No
- Conduct experiment Yes / No
- Makes observations for changes Yes / No
- Draws a conclusion Yes / No
- Dismantles & cleans Yes / No

- Reads & Understands the topic Yes / No
- Discusses with teacher educator Yes /No
- Selects the Model to be prepared Yes / No
- Lists the materials required Yes / No
- Collects the materials Yes / No
- Meets Method maste & seeks guidance Yes / No
- Prepares the model Yes / No
- Checks the appropriate ness of model for use(functioning) Yes / No
- Makes modifications as reqired if necessary Yes / No
- Presents the final version for demonstration Yes / No

Using Check Lists

It is customary when evaluating whether a student has used appropriate process (desired behaviour) a check list is used. In a check list the observer is required only to observe the performance and record the observation whether the desired behavior was present or absent.

The person constructing a check list follow several steps.

1. Designate the appropriate performance (end product)
2. List the important behavior and characteristics.
3. Include common errors the Individual may commit.
4. Put the list into an appropriate format.

Ex.: Behaviours of a Tennis Player

1. use correct grip.
2. correct position while hitting ball
3. Keep elbow straight
4. hit forehand to opposite court
5. Hit backhand to opposite court.
6. Serve ball to the correct part of the opposite court

Such list of behaviors is to be prepared.

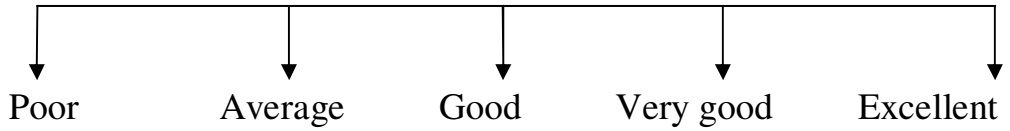
Annexure B: Rating Scale

Rating scale is a device by which the opinion concerning a trait/ character can be systematized. Here rating refers to expression of opinion judgment related to some event, object or character. These opinions are expressed on a scale of values. A check list indicates whether a particular behaviors is present or not (yes or No), where as a rating scale is an improvement over it, as it adds another dimension how much or how well or degree of presence of a trait. Rating scales can also be used to assess a variety of learning outcomes & aspects of development, which may be classified into two assessment areas.

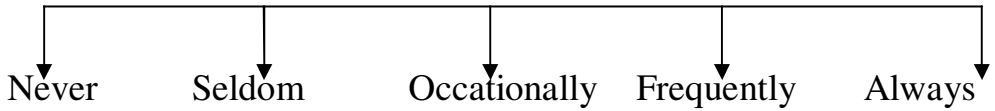
- Process / procedure
- Product

In the most common type of rating scale the columns/scales given against each statement may be in quantitative or qualitative form.

Ex: 1. How good was the performance (specify the activity)

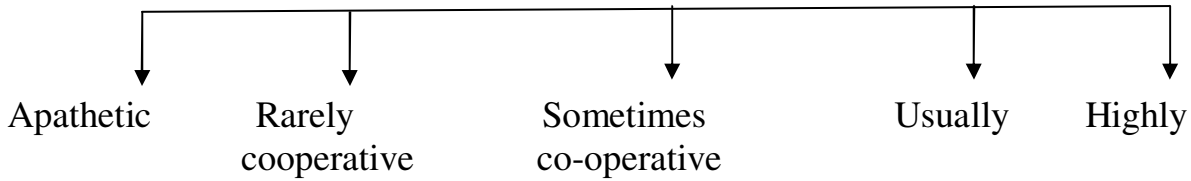


Eg: 2. To what extent the student participated in group discussion



Product scales can be used in judging the quality of any product, but in most areas teachers may need to develop their own scales. This can be readily done by selecting samples of students work that represent from 5-7 levels of quality & arranging them in the order of merit

Ex: 3- How do you rate the 'co-operation' of student teacher in the group activity /project.



Annexure C: Anecdotal Records

Anecdotal records are informal devices which could be used for the observation of students' significant behaviors in the classroom situation or outside. These jot-notes provide the teacher with information as to how the student is processing information, collaborating with students as well as general observations on learning styles, attitudes and behavior.

Anecdotal Record may be defined as an objective ,description of brief event in the life of teacher trainee by the teacher.The descriptions may be recorded separate Cards/ Separate pages, free from any interpretation of the behavior. Probably the most important advantage of aneedotal record in that they depict actual behaviour in natural situations. Age old odage that Actions speak louder than words has direct application here.A Student teacher may show good knowledge of healthy practices but violate them in everyday situation , may express great concern for co-operation & team spirit in the speech, but behave selfish manner in the play field.Because young children tend to be more spontaneous uninhibited in their actions their behaviour is easier to observe & interpret. Anecdotal Records can be used with very young students & students who have limited communication skills. Anecdotal Records can be useful in the areas where behaviour cannot be assessed by other means. Further they can also be very useful in case of those few students who are in need of special help (inclusive).

A sample is given in the next page.

Anecdotal Record – A Sample Example

Name of Pupil :- **Manjushree** Class : **9th**

Date :- **01.01.2013** Place : **New English School, Bhatkal**

Incident

I entered the class and was about to start. Manjushree came to me and showed me a poem. She told that she had written about 'Rain'. It was a delightful poem. I told her to read it to the class. She bowed her head and said 'No Sir'. I persuaded her to read by saying 'It is good, you read it'. Then she nodded her head and read the poem in a low voice. She was constantly looking at the paper and did not look at the class at all. She moved her left food back and forth and pulled her collar of her top now and then. When she finished a boy (Ravi) in the back row said, 'I could not hear it', read it again loudely. Manjushree said 'no' and ran to her seat and sat down and closed her face with both the hands.

Interpretation

Manjushree enjoys writing poems and reflect creative ability. She had considerable grip over the language and imagination. However she seems to be shy and nervous reading before a group. She is not bold enough to face the audience and seems to be over nervous.

Annexure D: KWL Charts:

What do the student already know (K)? –what do the students need and want to know (W) – What did the students learn (L). This is not only an effective pre assessment tool but also an effective tool to evaluate the level of understanding. Many teachers use the L part as an open-ended question in an examination allowing the students to share the depth of knowledge gained in the unit of study.

Name _____ Date _____

KWL Chart

Before you begin your research, list details in the first two columns. Fill in the last column after completing your research.

Topic _____

What I Know	What I Want to Know	What I Learned

Annexure E: Questioning

Questions are a key element in each of the building blocks of constructivism. Categories of questions are guiding, anticipated, clarifying and integrating.

This exercise ,in which students draw up a list of questions before a learning activity for which they hoped that they would obtain answers by the end of the lesson or activity. Then as the activity proceeded they would gradually delete questions from the list. They keep a record of all the questions they had listed earlier for which they got answers. This continues until no longer any question remained in their mind & troubled them. Further as the activity continues, students come out with new questions and they record them too. At the end of the activity students would hand over their lists, original as well as newly added ones and the outstanding questions when the activity is concluded.

Ex: Teacher introduces that, today we are going to learn 'MODELS OF TEACHING'. Teacher gives some pause and asks the students to list out the questions arose in their minds for which they wish to get answers.

Let us suppose these are the questions listed by them :

- Models , what do they mean?
- Do they refer to models used in Biology?
- Do they mean some frame of reference?

- Can these be used in History & Geography?
- Can every teacher use the models?

The teacher starts the lesson. He exposes the Models of Teaching given by Bruce Joyce. Gives some illustrations clarify the concept of models. He gives a demo of one model (Concept Attainment Model)lesson. He introduces certain elements of models.

Students list out few more questions:

- What are the differences between Models & Methods?
- How many models are designed?
- How many varieties of models are there?
- What are the benefits of using models?

Teacher continues the activity of exposition of models, introduces the families of models and their applicability.

Annexure F: Rubrics:

Rubrics are scoring guides or sets of expectations used to assess student's level of understanding and allow students to know the expectations to learn at a higher level.

RUBRICS – Sample (Scheme of Assessment)

- **1) Administering socio metric questionnaire to a class and preparing socio matrix and determing socio-metric status of students.**

Assignment No.	Particulars	Marks
1. Preparing Socio-matrix	i) Construction of the Socio-metric tool	2
	ii) Administration of the questionnaire	2
	iii) Plotting socio-gram	3
	iv) Interpretation of socio-gram (Identifying Stars, Isolates, Rejectees and Naglectees)	3
		10

2) Graphical representation of data – all the three types of graphs.

Assignment No.	Particulars	Marks
Plotting Graphs	i) Tabulating data into a frequency distributions	2
	ii) Selection of scales	2
	iii) Plotting the graph	2
	iv) Interpretation of data	2
		10

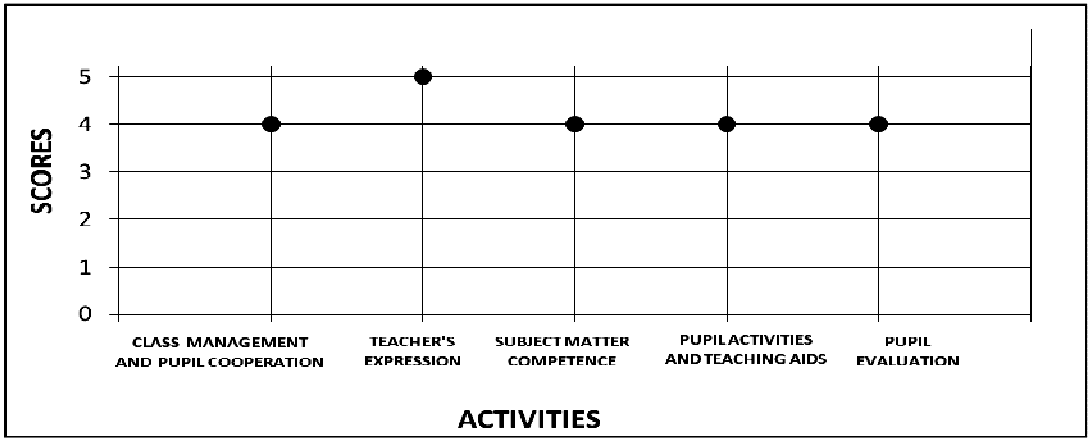
- **3) Development of specification of data – all the three types of graphs.**

Assignment No.	Particulars	Marks
Preparing index cards for 10 items	i) Writing objectives based 10 items (K.U.A Skills)	5
	ii) Content wise identification	2
	iii) Question type identification	2
	iv) Scoring	2
	v) Preparation of Index cards	2
		3
		10

Annexure G: PREP INDEX

The term Prep Index is a coined term. Here PR refers to Proficiency, 'E' means educational & 'P' means practice. Thus the term 'Prep Index' is meant to convey the idea of ' Index of proficiency' in an educational practice.

In the process of evaluation , practice lesson performance be quantified through performance index (PREP INDEX). Such quantified evaluation of individual lessons be then added up and divided by number of lessons evaluated. This will become the indicator of the mean attainment level of a student in practice teaching, during the session. The process of quantitative assessment of individual lesson and the calculation of PREP INDEX of each lesson is given below.



The faculty member observing the lesson, besides giving his/her descriptive qualitative observations, would also be required to make a quantitative evaluation on a five-point scale by putting dots in the appropriate place corresponding to the quality of

attainment of each of the indicated criteria viz (a) Class management and pupil cooperation: (b) Teacher's expression; (c) Subject matter competence; (d) Pupil activities; and (e) Pupil evaluation.

Suppose the dots put by the evaluator, in respect of the above items, stand placed on the grid as (a) 4, (b) 5, (c) 4, (d) 4 and (e) 4. In this case, the Prep Index of the lesson would be the sum of these evaluations, multiplied by 4. This will also be the percentage average/ mean marks of each lesson to be called the PREP INDCES (Index of proficiency in Educational practice)

In actual practice, the process of numerical calculation will be:

4+5+4+4+4=21

PREP INDEX FOR THE LESSON = 21x4 = 84%

The sum of the PREP INDICES of all the lessons divided by the number of lessons will give the overall PREP INDEX for the session

Annexure H: Portfolio

It is nothing but a collection of students work to serve a particular purpose such as documentation of students growth. It does not contain all the work a student does, but contains examples of 'best' works .Pieces of work for a portfolio must be selected with care to serve the intended purposes of the portfolio. Thus a student portfolio is purposeful collection of pieces of students work. They may be used as the basis for determining grades & for reporting students achievement & progress to parents.

Systematic collections of students work into portfolios can serve a variety of instructional & assessment purposes.

At an earlier stage teachers be insisted to submit portfolio including videotapes of their teaching & other examples of their work.Some highly regarded teacher preparation programmes,have made substantial use of portfolios of teaching in their preservice teacher preparation & evaluation of student teachers.

Strengths of portfolios:

- Provide an opportunity to show what they can do
- Encourage students to become reflective learners i;e evaluate their own strengths & weakness
- Setting goals & evaluating their progress
- Communicate & demonstrate parents regarding students progress
- Consist of products of classroom instruction ,they can be readily integrated with instructions.
- A sample portfolio is provided below for your reference.

A sample portfolio

To

Cindy Salib's

Portfolio

A Teacher in the Making

Annexure I: PROFILE

Broadly a profile is a panoramic representation - alpha numerical, graphical or verbal - of how the student seems to his assessers across a range of qualities or on one quality, as seen through a range of assessment methods. They can be used in reporting any assessments.

A profile could also be instead of calculating the student an overall grade in an individual course.

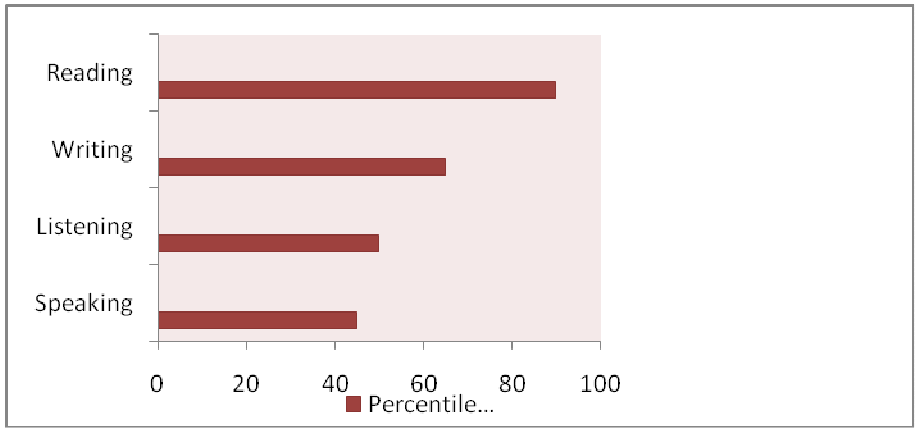
Physics		**Ravikiran**
Heat	-	75%
Light	-	40%
Sound	-	79%
Electricity	-	86%
Mechanics	-	50%

Within a course, a profile could be used to show how the student performed on various aspects of assessment.

Lab. Work	-	40%
Personal Project	-	90%
Home Work	-	65%
Final Exam	-	75%

Rankings can also be shown in a profile by indicating the students percentile position. Refer to the example given below :

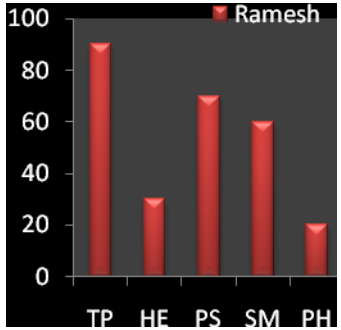
English Raghavendra

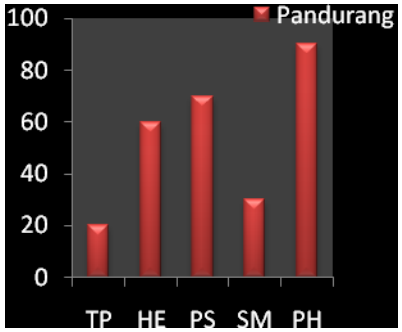


Suely charts allow easier comparison of several aspects of a students work with another as well as with in himself.

Inspection of profiles however suggest that some one looking for a classroom teacher would prefer **Ramesh** although **Pandurang** might excel him in other areas.

Ex.: Performance Profiles of Ramesh and Pandurang





A more sophisticated profile may be worked out for D.Ed student teachers as done with medical students of Mc. Master University, Canada (Michael Simpson) after each phase of teaching Practice or internship. This may consist of two sheets, the first enables the teacher educator to indicate the extent of students attainment of specific skill or competencies. The second sheet carries his comments and feed back indicating exceptional ability or area requiring extra attention. And finally the overall decision as to whether he is ready to go to next phase.

An example is given below :

Student Teachers Profile

1	2	3	4	5
A few or none of these behaviours demonstrated	Some behaviours shown but definitely lacks some	Just Average behaviour	Many behaviours are seen but there are minor difficulties	outstanding ability demonstrated

(May be copied from students rating scales)

1. Understanding of Concepts and Procedures

Given an educational problem, is able to examine the underlying behavioural mechanisms and adjust pedagogical interventions to find out a solution.

Beginning					
End					

2. Problem Solving Ability

Able to identify and define educational problems, search for information, collect and synthesise information into a conceptual frame work.

Beginning					
End					

3. Personal Characteristics

Recognises, maintains and develops personal characteristics and attitudes relavant to professional life – Ex.: Awareness of personal strengths and weakness, Emotional reactions and intellectual honesty.

Beginning					
End					

4. Group Interpersonal Skills

Is able to function as a production member of a small group; acknowledges other members contributions, shows awareness of and ability to relate to others feelings; identifies and copes with group problems.

Beginning					
End					

5. Self Directed Learning

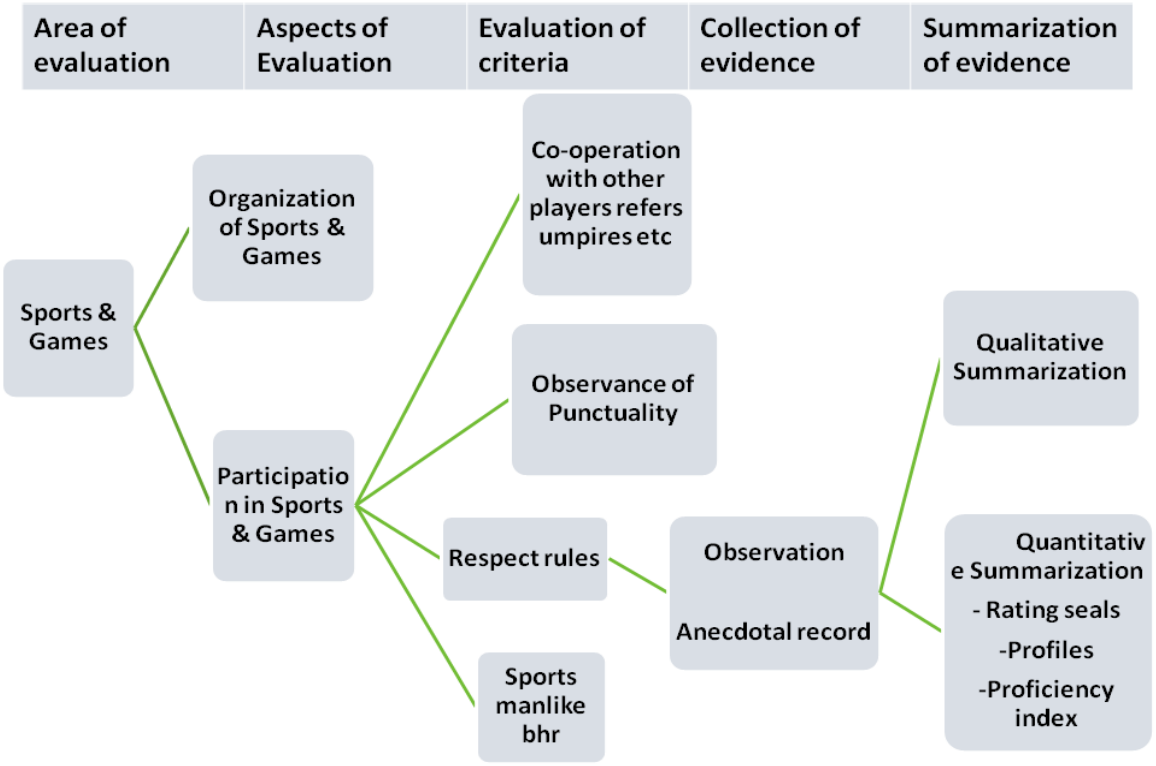
Is becoming a self directed learner, recognising personal education needs, selecting appropriate resources and evaluates progress.

Beginning					
End					

Annexure J: Portfolio

Methodology of Evaluation Educational practices

(ex- Sports & Games)



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Feedback on Curriculum Transaction

Name of the DIET/D Ed Institution:

Name of the teacher educator:

Address:

Course Title:

Units	Problems/Challenges faced	Action Taken	Suggestions
Unit 1			

Units	Problems/Challenges faced	Action Taken	Suggestions
Unit 2			

Units	Problems/Challenges faced	Action Taken	Suggestions
Unit 3			

Units	Problems/Challenges faced	Action Taken	Suggestions
Unit 4			

Units	Problems/Challenges faced	Action Taken	Suggestions
Unit 5			