

Post Graduate Certificate

Contemporary Education Perspectives and Research



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Introduction

The Post Graduate Certificate in Contemporary Education Perspectives & Research” (PGC-CEPR) has been designed to address a felt need expressed by several State Departments of Education, Teacher Education Institutes and Civil Society organisations to provide opportunities for continued professional development. The aim of the programme is to enable the professional development of faculties of education and functionaries working in the education sector from the learnings of field-based research studies conducted by faculty of CEIAR, TISS by bringing them abreast of new ideas in contemporary Indian education, and to upgrade their skills. In addition, the participants will also be equipped with the relevant research skills and methodologies. The PGC-CEPR course has been designed by the faculty of Centre for Education, Innovation and Action Research, TISS, Mumbai, with inputs from the faculty of School of Education, TISS, Hyderabad and a number of individuals and organisations working in the sector of teacher education. The course structure facilitates easy access by working professionals. It is pitched at an advanced level of understanding and practical skills, and encourages practitioners to build on their existing positional knowledge. Towards this end, the programme will employ blended learning methodologies, which involves the use of technology-enabled learning management systems and platforms, and multimedia resources.

Rationale for the Programme

It is widely recognized that teaching is a complex process where the teacher and the school play a central role in providing quality education, especially to under-served communities and groups. The benefits of using research-based knowledge to improve practitioners’ work is widely acknowledged. Yet, there are limited certification options with robust research grounding that are available for practitioners and professionals in the field of education for continuing education and professional development. Thus, a research-oriented professional development course has the potential to enhance practical, technical and theoretical knowledge among various education professionals and officials. It can enable practitioners to critically evaluate existing research and adopt methodologies and innovations in the context of their practice. It would increase the capacities of education functionaries to base their work on evidence and incorporate various research methodologies. The course would also help build their research capabilities and equip teacher educators to research their own practice and reflect upon it. This in turn can enrich academic research by incorporating the complexities of field realities and allow it to inform the policy discourse in education.

Programme Objectives

The programme aims at providing an opportunity to faculty and officials working in various Government Departments of Education, Teacher Education Institutes and Civil Society Organisations to develop perspectives relevant to current education reforms in India, and to develop research capabilities which are relevant to their professional work.

The curriculum includes:

- A course to help build perspectives on relevant themes in education through special recorded lectures by faculty of national repute. Case studies will help course participants to study recent developments in India and the developing world.
- Optional courses in specific themes in education to study features of innovations and contemporary and contextual research in these themes.

- Relevant research skills to enable practitioners to engage with research and help forge connections between research findings and practical knowledge.
- Hands on training during contact periods on use of relevant ICT tools.

Participant Profiles, Enrolment Processes and Requirements

Enrolment Processes and Eligibility

The admission process is managed by TISS and will follow the procedures and norms specified for certificate courses. The programme is advertised for open application. However, it may also be offered to specific cohorts deputed/nominated by State Governments. In case of open selection, preference will be given to professionals working in state institutions.

The eligibility requirements are given below:

1. Teacher educators working in University Departments of Education/Teacher Education Institutions (including DIETs / CTEs / IASEs / CRCs,BRCs and private colleges of education). OR
2. Education Administrators and Policy Makers in Central / State Governments, (including BEOs, EOs, DDPIs) OR
3. Personnel from Civil Society Organisations having 2-3 years of relevant experience and having a Master’s degree in any discipline are eligible. OR
4. Students of education pursuing MPhil. or Ph.D

Candidates may enrol for the programme individually or be nominated by their employers. The eligibility to be accepted for registration to individual courses will remain the same. Candidates may also be nominated to study individual courses by respective employers.

Requirement

A no-objection certificate from the concerned authorities in current place of work is necessary, as the programme consists of face-to-face contact classes for two weeks and weekly on-line instruction during the distance learning period. The total duration of the entire programme is 8 months, during which the participant must complete a research project. Duration of modular options will vary.

Participants must have access to the following devices with internet connectivity for the entire duration of the programme:

- A smart phone with internet to access the course materials and participate in online classes.
- A computer with internet access to complete and upload assignments and research reports as well as access library resources.

Programme Fees

The fees for the entire programmes is **Twenty Thousand Rupees**. For the modular options, fees for each 2-credit course is **Two Thousand Five Hundred Rupees**.

Programme Structure and Assessment

Course Code	Course Name	Credits	Assessment
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Compulsory Courses			
C-1	International and National Perspectives in Education	2	Reflective Journal Written Test Class Participation
C-2	Research Workshops and Labs	2	Test Assignment Participation in activities
Optional Courses – Any 3 courses to be chosen (Parts 1 & 2 will form one course)			
O-1	Reimagining Teacher Education -1	2	Any FOUR of the following will be used in each of the courses: Test Assignment Task-based Assessment Presentation Reflective Journal Class Participation
O-2	Reimagining Teacher Education -2	2	
O-3	Contemporary discourses in Education Policy and Practice -1	2	
O-4	Contemporary discourses in Education Policy and Practice -2	2	
O-5	Inclusive Education -1	2	
O-6	Inclusive Education – 2	2	
O-7	ICT and New Media in Education -1	2	
O-8	ICT and New Media in Education -2	2	
O-9	Strategic Leadership and Management for School Transformation -1	2	
O-10	Strategic Leadership and Management for School Transformation -2	2	
O-11	Comparative Studies in Teacher Education -1	2	
O-12	Comparative Studies in Teacher Education -2	2	
O-13	Language Education: A TPCK Approach -1	2	
O-14	Language Education: A TPCK Approach -2	2	
O-15	Science Education: A TPCK Approach – 1	2	
O-16	Science Education: A TPCK Approach -2	2	
O-17	Social Science Education: A TPCK Approach -1	2	
O-18	Social Science Education: A TPCK Approach -2	2	

O-19	Mathematics Education: A TPCK Approach -1	2	
O-20	Mathematics Education: A TPCK Approach -2	2	
O-21	Practitioner Research	4	Process Proposal Report Presentation

Total Credits across Courses

S No	Course Category	Total Credit
1	Compulsory Courses	04
2	Optional Courses	16
Total Credit		20

Programme Modalities

The programme will take a blended approach. Duration is 8 months, consisting of two cycles or four cycles totalling 12 days of contact and 20 weeks of on-line classes and self-study work.

For complete programme (20 credits):

In 4 cycles		In 2 cycles
3 days of contact + 5 weeks of online x 4 cycles		6 days contact + 10 weeks of online x 2 cycles
Weekly on-line classes will be held on alternate Saturdays from 10:30 am to 12:30 pm during distance mode.		

For modular offerings (4 Credits - per two courses of 2 credits each):

Participants may take individual courses from the list of optional courses mentioned above and earn credits. Later they could register for the PGC-CEPR programme and transfer the credits towards programme completion. It is compulsory to take up both parts of a course and complete the assessment requirements for getting course completion certificate.

5 days of contact class and 4 online classes of two hours each in 2 months.

Grading Scheme

The TISS's ten-point grading scheme would be used for the evaluation of courses. A grade point of 4.0 is the minimum requirement for passing the individual courses. A minimum grade point average (GPA) of 4.0 is required to pass the programme. Letter Grades and corresponding qualifying descriptions and grade point range are given below.

Letter Grade	Level of Performance/Competence	Grade Point
O	Outstanding Performance - demonstrating high level mastery and ability to apply concepts to new situations	9.0 – 10.0
A+	Excellent - demonstrating mastery of all learning or assessment situations	8.0 - 8.9
A-	Very Good - demonstrating mastery of most learning or assessment situations	7.0 – 7.9
B+	Good - demonstrating thorough competence in most situations	6.0 - 6.9
B-	Moderate - showing reasonably acceptable competence in some situations, minimal competence in others	5.0 - 5.9
C+	Average Competence- demonstrating minimal competence in most situations, while showing considerable capacity for improvement in others	4.0 – 4.9
C-	Below Average Competence - Not passing, but still showing some capacity for improvement or development	3.0 - 3.9
D	Unsatisfactory Competence - Below satisfaction level performance marked by lack of engagement or inability to apply concepts	2.0 - 2.9
E	Highly Unsatisfactory competence - Complete lack of - engagement and comprehension; also frequent absence	1.0 - 1.9
F	Unacceptable - Non-completion of assignments or blank responses in a test or activity	0 - 0.9

Remarks in the Semester Grade Sheet

S - Supplementary

Re - Repeat Course

I - Improvement Examination

Programme Completion and Credit Requirements Fulfilment

Attendance and participation in all activities during the contact period, completion of tasks assigned during distance learning - including submission of research report - are considered while awarding certificate for programme completion. Any changes or requests for exceptions regarding programme completion must be brought to the notice of the programme coordinator. They will be dealt with on a case-by-case basis and the decisions will be communicated to the participant(s).

Participants who are enrolled for individual courses will be evaluated by the same criteria. They will be provided with individual course completion certificate indicating the grade they have earned. On registration to the full programme, credits of courses earned within the last 3 years can be transferred into the programme towards completing the programme completion requirements.

Only candidates registered for the full programme will be given TISS IDs and access to the TISS e-resources / library.

Supplementary and Improvement Assessments

Supplementary assessment is applicable in the following situations:

1. When GPA score less than 4.0 for a course
2. When the attendance shortfall is more than 25% and less than 33%
3. If there is delayed or non-submission of assignments (including due to a medical emergency)
4. If there is a delay or inability to complete the research report
5. For improvement, a candidate can opt for a retest or re submit his/her assignment provided he/she has the required attendance and has scored a grade of 4 or more in the concerned test/ assignment. Improvement is not allowed for research reports.
6. Courses completed through supplementary or improvement assessments will be identified using the following codes placed against the grade for the respective courses in the grade card: 'S for Supplementary, and 'I' for Improvement. Grades given through the Supplementary or Improvement mode will not be considered for awards or prizes in the programme even if the candidate has topped the class or research work.
7. Supplementary and improvement assessments will be announced along with the declaration of programme results.

Learning Management System (TISSx)

Free and open-source software learning management systems, developed on pedagogical principles are used for blended learning, distance education, flipped classroom and other e-learning projects in the educational sector. The programme will use TISSx extensively for the teaching - learning process.

All participants can access the TISSx through an internet service.

An orientation to the TISSx will be given in the contact period of cycle 1.

Curriculum (List of Courses)

Compulsory Courses

C1 - International and National Perspectives in Education (Title change)

C2 - Research Workshops and Labs

Optional courses (Any three)

- O1 - Reimagining Teacher Education -1
- O2 - Reimagining Teacher Education -2
- O3 - Contemporary discourses in Education Policy and Practice -1
- O4 - Contemporary discourses in Education Policy and Practice -2
- O5 - Inclusive Education -1
- O6 - Inclusive Education -2
- O7 - ICT & New Media in Education – 1
- O8 - ICT & New Media in Education - 2
- O9 -Strategic Leadership and Management for School Transformation–1
- O10 - Strategic Leadership and Management for School Transformation–2
- O11 - Comparative Studies in Teacher Education - 1
- O12 - Comparative Studies in Teacher Education - 2
- O13 - Language Education: A TPCK approach -1
- O14 - Language Education: A TPCK approach -2
- O15 - Science Education: A TPCK approach - 1
- O16 - Science Education: A TPCK approach - 2
- O17 - Social Science Education: A TPCK approach - 1
- O18 - Social Science Education: A TPCK approach - 2
- O19 - Mathematics Education: A TPCK approach -1
- O20 - Mathematics Education: A TPCK approach - 2
- O21 - Practitioner Research

Course Outlines

C1 - International and National Perspectives in Education (Title change)

Course Description

This course is designed to provide participants with an overview and introduction to contemporary themes, policies and debates in the education and development discourse. The course uses current research, drawing from relevant national and international works via a series of facilitated talks by experts/researchers of national repute to examine the impact of

the relevant perspectives for schooling and to understand the interaction of these points of view in relation to the system, the teacher and her work and student learning and outcomes.

After reasoning carefully in order to clarify thinking about the topics, this should help to understand consequences of these viewpoints for policies, for teacher preparation and classroom processes. It will also help to appreciate how a variety of social and cultural characteristics may impact students learning such as socioeconomic status, cultural & linguistic background, gender, geographic location and school type.

Course Content

Suggested list of topics:

1. Learning and Curriculum: NCF 2005 and constructivism; Understanding constructivism in the NCF 2005 in relation to pedagogy and defining and organising knowledge.
2. Equity, social justice and inclusion: What do each of these terms mean in Education. What are the programmes and policies that address these concerns and the idea behind their formulation?
3. Non-Scholastic Curricular areas: Physical Education; Art in Education; Education for Peace
4. Vocational Education: Philosophy behind work and education, Status, key policy issues, recent policy responses and future trends. Other international frameworks of vocational education, e.g. Germany
5. ICT & Education: ICT as a teaching and learning tool; ICT as a communication tool and its impact in education including key policy issues, recent policy responses and future trends.
6. Student Assessment: International Standardised Tests; A critical analysis of the purpose, framework and methodologies adopted and the goals of tests such as PISA. India's participation, position and the significance in these tests
7. National Tests – NAS, ASER: A Critical analysis of the purpose, framework and methodologies adopted and the goals of tests NAS & ASER.; A critical analysis of student outcome indicators.
8. Assessment: Assessment of non-cognitive aspects; Discussion on the purpose, aims and tools available for evaluation non-cognitive skills.
9. Teacher Assessment: Discourse, measures, methodologies and factors impacting teacher assessment
10. SDGs and Quality in education: International and Indian context; Discourse, measures, methodologies and factors impacting education quality
11. Organisation of educational systems: International/Comparative analysis of the school teacher: Status and role of the teacher, teacher preparation policies and processes, both pre-service and in-service, teacher profile, salary, service conditions, recent debates
12. Curriculum Framework for TE: The National Curriculum Framework for Teacher Education (NCFTE), India. The current aims, framework for teacher education, official reports and the larger debates.
13. Education Reform in India: Systemic reform, Programmatic reform, and innovations.; A broad global understanding of agencies, state and institutions shaping education reform around the globe, dimensions of education reform, evidence and debates

14. History of education reform: Historical survey of educational reform in India; Different types of reform in the Indian education system and the historical, philosophical, global & local ideas that have shaped these reforms
15. RTE: Right to Education; The act - understanding it from a legal and educational perspective
16. Scaled Interventions in India: Multigrade Multilevel Learning Programme, Hoshangabad Science Teaching Programme, etc.; An analysis of the aims, design, implementation and impact of select state level innovative programmes; School Choice & Public Private Partnership : A global view of these debates, focusing on how it has/is impacting status of schooling and policy trends in the Indian context
17. Global Education Reform: Teacher Regulation and Accountability / Teachers Agency and Autonomy- A global view of these debates, focussing on how it has/is impacting status of teachers and trends in the Indian context
18. Models of regulation of Education in India: Regulation in Indian Education system; The different models of regulation of education, implications, current status and trends in the Indian education system including teacher regulation
19. Regulation in Education: Comparative analysis of international compulsory education policies: Comparative analysis of compulsory education policies, educational goals/aims, teacher preparation and policy processes. A suggested list of countries/regions - China, Europe, South Africa, UK, US Education for All (EFA) ; Millennium Development Goals (MDG): Large global school education political compacts and initiatives - their purpose, India's participation and how they shaped/continue to shape the current school policies and systems in India

C2 - Research Workshop and Lab

Course Description

Education research broadly draws on paradigms of social science methodologies but is more varied and eclectic given its constitutive multi-disciplinarity, the range of issues and problems which are of interest, as also the numerous sites and objects of research interest. This could range from classroom to trends of states, districts and nations or from individual children's performance to biases and difficulty of textbooks.

New emphases in development sector are on evidenced based practice and ability to collate and abstract implications from a range of research. This also requires that research by others needs to be reviewed critically for its validity and its potential influence on policy processes. Research also needs to be reported in specific ways to be used effectively by a range of stakeholders and practitioners from community members to teachers and administrators.

This course will be offered in a workshop mode and will be lab-based. Practitioners from teacher education as well as policy design and implementation will benefit from this course which addresses a range of issues relating to research perspectives, appropriate methodologies and opportunities to develop skills of working with databases, analysis of qualitative and quantitative data, and writing and reporting.

Objectives

1. Basic knowledge of quantitative and qualitative research studies
2. Developing a perspective on research design and analysis as well as the development of skills of using software through workshops.
3. The development of perspectives on research designs will be based on the study of selected research papers which will be used as critical references for the concepts and ideas that are under discussion.

Course content

- Basic introduction to research and the research cycle
- Research designs with a focus on quantitative and qualitative designs that are relevant to practitioners (exploratory studies, experimental designs, evaluation studies, case studies, action research, participatory research, meta analysis, document analysis, testing, use of data bases)
- Analyses of data: qualitative and quantitative—statistics and use of software for quantitative and qualitative analysis.
- Reading and reviewing research critically

Readings

Cohen et al (2011) Research Methods in Education. NY:Routledge

Green, J. et al. (2006) Handbook of Complementary Education Research. NJ: Lawrence and Erlbaum

O1 – Reimagining Teacher Education -1

Course Description

Teacher educators have the crucial task of both preparing teachers and implementing policies at the field level. The education sector being complex and dynamic requires teacher educators to keep abreast of the current discourses on education. Also the current curricular and policy demands, expectations and requirements of teacher education means teacher educators have to understand the major aspects of the emerging scholarship on teacher education. This course is expected to disseminate knowledge and practice of teaching about teaching and learning about teaching. This course is designed keeping in mind experienced professionals and practitioner teacher educators. Such individuals will be aware of field realities and issues and problems related to teacher education. This course is meant for teacher educators to update their knowledge and skills-base to be effective and motivating teacher educators. Teacher education will be studied as a continuum and will include pre-service and in-service teacher education.

Objectives

This course aims at exposing participants to the:

1. current discourses in teacher education
2. diversity in teacher education

3. teacher capacities for advancing social justice
4. models of teacher education followed in India

Course content

Unit 1: Roles of Teachers

Constructivist, learner-centred approaches to teaching-learning and active learning are now current ideas in teacher education discourse. Pedagogic roles within these frameworks have changed. The broad goal is to make pedagogy more conducive to positive learning outcomes, focusing on deep learning and respecting the learner. This unit delves into the implications of pedagogy for teacher education within the framework of constructivist, active and learner centred approaches.

Unit 2: Models of Teacher Education & Contexts of Teacher Education

In this unit teacher educators are introduced to different models of teacher education. The focus is on Indian TE policies from a historical and social perspective. The rationale for these policies and ideas, keeping the current context and socio-economic profile of student-teachers entering the teaching profession will be discussed. In-service education models, current status and prospects will also be examined.

Unit 3: Diversity and TE, Teacher Capacity for Advancing Social Justice

Diverse population of students are now enrolling in schools across India. Preparing teachers to teach and include students from diverse backgrounds who are socially, economically and linguistically marginalised requires rethinking teacher preparation. This unit will enable teacher educators to examine teacher preparation for inclusion, addressing diversity and advancing social justice. Diversity in classrooms is a norm. Teachers need to be prepared and adopt pedagogies that are inclusive to facilitate learning of all children. This unit examines pedagogies for inclusion taking in the Indian context through the lenses of the different forms of marginalisation – caste, class, gender and linguistic - experienced by students.

O2 - Reimagining Teacher Education -2

Course Description

Teacher educators have the crucial task of both preparing teachers and implementing policies at the field level. The education sector being complex, and dynamic requires teacher educators to keep abreast of the current discourses on education. Also, the current curricular and policy demands, expectations and requirements of teacher education means teacher educators have to understand the major aspects of the emerging scholarship on teacher education. This course is expected to disseminate knowledge and practice of teaching about teaching and learning about teaching. This course is designed keeping in mind experienced professionals and practitioner teacher educators. Such individuals will be aware of field realities and issues and problems related to teacher education. This course is meant for teacher educators to update their knowledge and skills-base to be effective and motivating

teacher educators. Teacher education will be studied as a continuum and will include pre-service and in-service teacher education.

Objectives

This course aims at exposing participants to the:

1. Pedagogical roles of a teacher and teacher educator
2. Assessment of Teacher Education Programmes

Course content

Unit 1: Pedagogies for TE

Changing paradigms in teaching learning and innovations in technology has necessitated examining different pedagogies and approaches for teacher education. This unit examines some of the new pedagogies that have been adopted in the global and Indian context for teacher education.

Unit 2: Assessing TE Programmes and change in teacher understanding and practices

Learning, teaching and pedagogy are complex processes with no straightforward means to assess impact of TE programmes. This unit explores the different approaches to assessing TE programmes and the complexities and contradictions involved. Current research in assessing teachers' PCK, beliefs and classroom practices will be critically analysed.

Readings

O1 & O2 - Reimagining Teacher Education 1 & 2

Hugh Sockett, 2008. The moral and Epistemic Purposes of Teacher Education in Handbook of Research on Teacher Education. Enduring Questions in Changing Contexts. Third Edition. Marilyn Cochran-Smith et al. Eds. Routledge. Page 45-47

Brooks, J & Brooks, M. 1993. The Case for Constructivist classrooms. ASCD, USA. Chapter 9 (for translation)

Alexander, R. 2000. Indian Context Culture and Pedagogy. International Comparisons in Primary Education. Blackwell, Oxford. Teaching as art craft or science 272 – 276 and Lesson Planning 306-319

Sriprakash, A (2012) Pedagogies for Development. The Politics and Practice of Child-Centred Education in India. Springer. Nali Kali pg 53-60

NCTE (1998) Curriculum Framework for Teacher Education. Author, New Delhi.

NCTE (2009) National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher. Author, New Delhi

Chattopadhyaya, D. P. (1985) The Teacher and Society: Report of National Commission on Teachers I 1983-85. Govt. of India, New Delhi.

Pollard et al. 2008. Reflective Teaching. Continuum, London.

Padma's Report on CRCs &BRCs

Ayers, W. 2004. Teaching the Personal and the Political Essays on Hope and Justice. Teachers' College Press, New York. Teaching for Justice and Care pp: 17-22

Bob, Lingard. 2005. Socially Just Pedagogies in Changing Times. International Studies in Sociology of Education, vol 15,2.

Position papers NCF 2005 - Gender , SC/ST , Education of Children with Special Needs Executive Summary

DSERT. D.Ed Inclusive Education sourcebook

Report on Inclusive Classroom Deshkal Society – Executive Summary

Banerjee et al. Inclusive practices

Learning Curve Issue 23 Oct 2014 – Mythili, Farah

Labaree, D. 2000. On the nature of teaching and teacher education. Journal of Teacher Education. 51 (3). pp.228-233.

NCERT (2009) NCF 2005 Position Papers on National Focus Groups on Systemic Reform Vol. II-2009. Chapter 4- Teacher Education for curriculum renewal

Darling-Hammond, L. Journal of Teacher Education, Vol. 57, No. X. Page 4 –11

Shulman, L. 2004. The Wisdom of Practice. Essays on Teaching, Learning, and Learning to Teach. Jossey-Bass, San Francisco, CA

MHRD. 2012. Justice Verma Committee Report. GOI, New Delhi

Guskey, T. 1999. Evaluating Professional Development

Cochran-Smith, M and Zeichner, K (Eds). 2005. Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education. Lawrence Erlbaum Associates, NJ.

Common Wealth for Learning (CoL) – Tools for assessing TE programme

O3 – Contemporary discourses in Education Policy and Practice - 1

Course Description

Understanding education policy processes is a complex exercise since it requires understanding the historical legacy, contemporary political, economic and social dynamics, existing theoretical knowledge base, interpretation of problems, comparative perspectives, framing of solutions and also appreciating policies as they are mediated through various institutional structures in practice.

This course intends to help participants to understand and analyse educational policies and their outcomes as embedded in three contexts: the perceived problems, the ideas and assumptions that underlie policy choices and the institutional structures and processes that mediate these policies. Given the complex and ever-changing education policy landscape in

India, the course encourages participants to examine the most critical, dominant policy choices vis-à-vis school education in India and reflect on the policy outcomes and the role of various institutional structures in influencing these outcomes. The course draws from the multidisciplinary field of policy studies and is particularly embedded in examination of contemporary issues in education policy at the national and international level.

Objectives

The objectives of the course are as follows:

1. To develop familiarity with the existing policy framework on elementary education in India and the role played by state and non-state actors and institutions within this policy framework
2. To develop an understanding of various policy processes, its formulation, implementation and outcomes

Course content

Unit 1: The Policy Context And Policy Processes

This unit would help the participants to understand and analyse the policy processes as they unfold within the specific policy contexts – at the national, sub-national and international level. This would be done by engaging with questions of contemporary political economy and the roles played by state and non-state actors. Using specific examples of key policy documents, the participants would be encouraged to review how various educational problems been identified, perceived and how have issues and solutions been expressed in policy documents. The participants would be familiarised with comparative dimensions of some of the key policy questions that are of relevance in contemporary times, such as right to education, etc.

Unit 2: Policy Institutions And Mechanisms

Institutional mechanisms and structures play a critical role in transforming policy rhetoric into policy outcomes. This unit introduces the participants to the key institutional mechanisms and structures that contribute to realization of policy goals and in turn influence the policies and action on elementary education in India. This unit will enable the participants to critically examine these institutional mechanisms and structures in education, their characteristics, dynamics and delivery.

Unit 3: Policy Implementation and Practice

The objective of this unit is to enable participants to understand various factors that influence policy implementation on the ground. With the help of case examples, implementation of specific policies would be taken up for study. The participants would be encouraged to reflect on the ground level experiences of policy implementation, identify constraints and factors that help/ hinder policy implementation.

O4 – Contemporary discourses in Education Policy and Practice - 2

Course Description

Understanding education policy processes is a complex exercise since it requires understanding the historical legacy, contemporary political, economic and social dynamics, existing theoretical knowledge base, interpretation of problems, comparative perspectives, framing of solutions and also appreciating policies as they are mediated through various institutional structures in practice.

This course intends to help participants to understand and analyse educational policies and their outcomes as embedded in three contexts: the perceived problems, the ideas and assumptions that underlie policy choices and the institutional structures and processes that mediate these policies. Given the complex and ever-changing education policy landscape in India, the course encourages participants to examine the most critical, dominant policy choices vis-à-vis school education in India and reflect on the policy outcomes and the role of various institutional structures in influencing these outcomes. The course draws from the multidisciplinary field of policy studies and is particularly embedded in examination of contemporary issues in education policy at the national and international level.

Objectives

The objectives of the course are as follows:

1. To study the key policy questions of contemporary times.

Course content

Unit 1: Policy Discourse: Neo-Liberal Ideology and Critique

In the realm of policy discourse, neo-liberalism seems to be dominant in the aftermath of the decline of the welfare state. However, when it comes to policy making, neo-liberalism needs to be contrasted with the earlier school of classical economic liberalism. The presuppositions that the two schools share include that an individual is homo-economicus, the market is the best institution to allocate resources, and commitment to laissez-fairism and the indivisible hand theory to argue in favour of circumscribing the role of the state in the economy. Competitiveness was believed to ensure efficiency and quality, and pursuit of self-interest by individuals to be in harmony with the overall benefit of the entire society. Thus, this unit focuses on highlighting the criticism of neo-liberal ideology for education.

Unit 2: Market and market failure in Education

The objective of this unit is to provide a discussion on how the market for education is different from the conventional understanding of market and how does such a market differ from the highly lauded perfectly competitive market structure. This is followed by a discussion on market failure and possible cases of government intervention. We then will discuss the concept of a quasi-market to set the stage for critical appraisal of the major policy initiatives being mooted and implemented both in India as well as in the developed countries.

Unit 3: Globalization And Education

Global education policies and practices exist in a superstructure above national and local schools. Nations independently control their school systems while being influenced by this superstructure of global education processes. Today, many nations choose to adopt policies

from this global superstructure in order to compete in the global economy. Therefore, discussion on education globalization and their impact on national school systems is the major objective of this unit. Moreover, one of the most important decisions that parents make regarding their children is the choice of their schools. A good education is often the cornerstone of a person's future life, being the foundation for his or her career. Most parents take care to choose a suitable school for their children, expending considerable resources in terms of time and money in the process. Thus, this course also focuses on the existing literature on the school-choice options.

Readings – O3 & O4 – Contemporary discourses in Education Policy and Practice –1 & 2

Michael W. Apple (2004) *Creating Difference: Neo-Liberalism, Neo-Conservatism and the Politics of Educational Reform*. *Educational Policy* 2004; 18; pp12

Basu, Mausami (2006). 'Negotiating Aid: World Bank and Primary Education in India', *Contemporary Education Dialogue*, Volume 3:2, Spring 2006, pp: 131-154

Brewer, D. J. And P. J. McEwan (2010). *Economics of Education*, London: Elsevier.

Chattopadhyay, S. (2012). *Education and Economics: Disciplinary Evolution and Policy Discourse*, New Delhi: Oxford University Press.

Dale, R. (1997). "The State and the Governance of Education: An Analysis of the Restructuring of the State-Education Relationship", in A. H. Hasley, H. Lauder, P. Brown and A. S. Wells (eds.) *Education: Culture, Economy and Society*, Oxford and New York: Oxford University Press, pp. 273-82.

Dore, R. (1976). *The Diploma Disease: Education, Qualification and Development*, London: George Allen & Unwin.

Dyer, Caroline (1996) *The Improvement of Primary School Quality in India: Successes and Failures of Operation Blackboard*. *Edinburgh Papers in South Asian Studies*. Number 4 (1996).

Govinda, R. (ed.) (2011). *Who goes to School? Exploring Exclusion in Indian Education*, New Delhi: Oxford University Press.

Govinda, R. And M. Bandyopadhyay (2011). "Access to Elementary Education in India: Analytical Review", in Govinda, R. (ed.) (2011). *Who goes to School? Exploring Exclusion in Indian Education*, New Delhi: Oxford University Press, pp. 1-86.

Greenway, D and M. Haynes (2004). "Funding Higher Education", in G. Johnes and J. Jones (eds), *International handbook on the Economics of Higher Education*, UK: Edward Elgar Publishing, pp. 299-328.

Jha, P., S. Das, S. S. Mohanty and N. K. Jha (2008). *Public Provisioning for Elementary Education in India*, New Delhi: Sage.

Olssen, M. (1996). "In Defence of the Welfare State and Publicly Provided Education: A New-Zealand Perspective", *Journal of Education Policy*, 11(3): 337-62.

Ronald Lindahl (2006) *The Right to Education in a Globalized World* in *Journal of Studies in International Education* 2006; 10; 5.

Olssen, M. And M. Peters (2005). “Neo-liberalism, Higher Education and the Knowledge Economy: From the Free Market to Knowledge Capitalism”, *Journal of Education Policy*, 20 (3): 313-46.

Spring J. (2014). *Globalization of Education: An Introduction*, New York and London: Routledge.

Tilak, J. B. G. (2004). “Public Subsidies in Education in India”, *Economic and Political Weekly*, 39 (7): 343-59.

O5 - Inclusive Education - 1

Course Description

National Curriculum Framework for Teacher Education NCFTE, 2009 states that “Inclusive Education refers to a philosophical position as well as an arrangement of institutional facilities and processes. The aim is to create an integrated school setting providing equal opportunities to children with different abilities, varied social background and diverse learning needs” (NCTE, 2009, p. 13).

The philosophical position of this course is to value every individual and ensure equitable learning opportunities are provided for all. It also considers the broader concept of inclusion, from a focus on disability to celebrating diversity which includes a range of students’ abilities at one end of the spectrum to the gifted and talented at the other.

Teachers play one of the key roles in inclusion as they are the change agents in the classrooms. This course would enable creation of inclusive learning environments, through teachers and teacher educators who would be equipped with professional dispositions and skills, besides conceptual knowledge to address exclusion of all forms. They would also be given opportunities to critically reflect on their beliefs and biases in a non-threatening atmosphere.

Objectives

To enable participants to:

1. Recognise diversity in the classroom as a resource
2. Appreciate the need for inclusion from a social justice perspective.

Course content

Unit 1: Diversity and Inclusion

This unit will provide a critical study of learner diversity, their contexts, needs and agency. It will give an overview of current conceptual and empirical understandings of learning. Classroom diversity will be studied in the context of current range of school providers and reflect on the why, what and how of inclusion in this scenario. The unit will reflect on the barriers to inclusion ranging from attitudes, pedagogy and structural barriers.

Unit 2: Forms of Disabilities: Introduction, Assessment & Curricular implications

An introduction to the following forms of disabilities will be given along with conducting functional assessment tests will be given:

- Locomotor & Neurological disabilities
- Sensory disabilities (Hearing and Visual)
- Intellectual disabilities, Learning disabilities, Gifted & Talented

Curricular and pedagogic adaptations that educators can make to cater to the needs of learners with various forms of disabilities will be discussed.

Unit 3: Creating an Inclusive Learner Friendly Environment

The unit engages with ILFE – how does it look and what needs to be done. Approaches to creating ILFE in terms of flexible planning, diverse strategies for classroom organisation, positive disciplining techniques will be discussed along with an understanding of inclusive pedagogy. This will include general and subject specific approaches, art in education, ICT mediation. Frameworks for analysing resources from the perspective of inclusion will be introduced in terms of Universal Design of Learning principles. Ideas for collation, creation and use of a variety of resources will be discussed. Assessment is an important component of inclusion and a range of tools and techniques for feedback and monitoring of students' learning will be considered.

O6 - Inclusive Education – 2

Course Description

National Curriculum Framework for Teacher Education NCFTE, 2009 states that “Inclusive Education refers to a philosophical position as well as an arrangement of institutional facilities and processes. The aim is to create an integrated school setting providing equal opportunities to children with different abilities, varied social background and diverse learning needs” (NCTE, 2009, p. 13).

The philosophical position of this course is to value every individual and ensure equitable learning opportunities are provided for all. It also considers the broader concept of inclusion, from a focus on disability to celebrating diversity which includes a range of students' abilities at one end of the spectrum to the gifted and talented at the other.

Teachers play one of the key roles in inclusion as they are the change agents in the classrooms. This course would enable creation of inclusive learning environments, through teachers and teacher educators who would be equipped with professional dispositions and skills, besides conceptual knowledge to address exclusion of all forms. They would also be given opportunities to critically reflect on their beliefs and biases in a non-threatening atmosphere.

Objectives

To enable participants to:

1. Design inclusive, learner friendly classrooms

Course content

Unit 1: An inclusive teacher

Questions regarding who is a reflective practitioner, why is reflective practice important for inclusion and how can a teacher education programme support teachers to become critically reflective. The potentials and possibilities of community of practitioners will be studied with the help of case studies and the means, avenues, resources for continuous professional development will be critically studied.

Unit 2: Collaboration and Support Networks

This unit is meant to provide practical suggestions on the following to create a synergy among various provisions available for children with disabilities from government, policies and laws on inclusion along with locally available resources and personnel:

- Utilizing resources available in the community
- Resource rooms
- Resource teacher
- Parents/ volunteers/ care- givers/therapists
- Convergence areas between resource teacher and 'general' teachers

Readings -O5& O6 - Inclusive Education – 1& 2

Deshkal. (2011).Report On Inclusive Classroom, Social Inclusion/Exclusion and Diversity: Perspectives, Policies and Practices. DeshkalPublications

Gathoo, V. (2006).Curricular Strategies and Adaptations for children with Hearing Impairment.New Delhi: KanishkaPublishers.

Karant, Prathibha&Rozario, Joe (2003). Learning disabilities in India willingthe mind to learn. NewDelhi:Sage.

Kalyanpur, M. (2008). Equality, quality and quantity: challenges in inclusive education policy and service provision in India. International Journal of Inclusive Education, 12(3), 243-262.

Kumar, M & Sarangapani, P Editors. (2005).ImprovingGovernmentSchools: What has been tried and what works. Sutradar,Bangalore.

Narayan, J. (2003) Educating children with learning problems in regular schools. NIMH,Secunderabad

NCERT. (2006). National Focus Group Position Paper on Education withSpecial Needs Inclusive Education. New Delhi:NCERT

RCI (2013). Status of disability in India 2012. New Delhi:RCI

Ruma Banerjee; Archana Mehendale; Manjula Nanjundaiah, Editors (2011).Understanding Inclusive Practices in School ; Examples of Schools from India, Seva- in-Action, Bangalore,India

Singal, N. (2005). Mapping the field of inclusive education: a review of the Indian literature. *International Journal of Inclusive Education*, 9(4), 331-350.

Singal, N. (2019). Challenges and opportunities in efforts towards inclusive education: reflections from India. *International Journal of Inclusive Education*.

UNESCO. (2005). The Diversity Kit. www.unesco.org

Vandana Saxena, Editor. (2012) *Contemporary Trends in Education – a handbook for educators*, Dorling Kindersley(India) Pvt. Ltd., Noida, India (licencees of Pearson Education in SouthAsia)

Yogendra Singh, Editor. (2011). *Schooling Stratification and Inclusion-Some Reflection on the Sociology of Education in India*, National Council of Educational Research And Training, New Delhi.

O7 - ICT and New Media in Education - 1

Course Description

This course aims to enable students to design digital learning experiences by critically engaging with the subject matter, subject experts, faculty, learners and technology platforms, deeply aware of both the cognitive principles as well as the influences of social conditioning. In the process of designing these tool and resources, the course will also orient student teachers on different ICT tools and resources which aid learning develop an in-depth understanding and critical thinking around their educational value.

Unit 1: Design as Discourse

Instructional design is typically limited to “how to teach” and not “what to teach”. Since it remains indifferent to ‘what to teach’, there is a tendency among instructional designers to focus on ‘techniques’ and ‘strategies’ to aid learning (designing from outside), instead of attempting to design from the ‘inside’.

In this Unit, students will engage with a unit of content (from a given choice of subjects – languages, humanities, mathematics and sciences), and a subject expert in a given field to define course goals and learning outcomes. After finalizing the outcomes, students will write a brief design outline on how best to convert this content into a meaningful learning experience for students (for self-learning). The document should examine biases of experts or the content if any (without being judgmental), and create a design framework that would allow students to see through these biases and make independent inferences.

Unit 2: Designing Educational Resources

In this Unit, students will engage with a unit of content (from a given choice of subjects – languages, humanities, mathematics and sciences), and a subject expert in a given field to define course goals and learning outcomes. After finalizing the outcomes, students will write a brief design outline on how best to convert this content into a meaningful learning

experience for students (for self-learning). The document should examine biases of experts or the content if any (without being judgmental), and create a design framework that would allow students to see through these biases and make independent inferences.

Unit 3: Learning Design, Digital Technologies and Social Media

In this Unit, students will be required to audit multiple digital technologies and people interactions on social media and technology platforms. They will examine the implications of technologies, platforms and social interactions on learning design – from the use of 3D Models haptic technology and wearables to multiplayer online games and social media platforms.

They should assess the relationship between people and technology, popular digital cultures and learning culture, and immersion and alienation. They will be exposed to the skeptical, critical and optimistic views on technology.

They should be able to deconstruct existing digital artefacts, in the light of social, cultural, racial, ethnic and gender stereotypes or biases

O8 - ICT and New Media in Education – 2

Course Description

This course aims to enable students to design digital learning experiences by critically engaging with the subject matter, subject experts, faculty, learners and technology platforms, deeply aware of both the cognitive principles as well as the influences of social conditioning. In the process of designing these tool and resources, the course will also orient student teachers on different ICT tools and resources which aid learning develop an in-depth understanding and critical thinking around their educational value.

Unit 1: Designing ICT enabled resources

Participants would be exposed to the design of different types of digital connected learning experiences such as MOOCs (xMOOCs and cMOOCs), Simulations, Games, Virtual Worlds and other open collaborative initiatives using a mix of platforms and devices from laptops to mobile to other smart technologies (and the internet of things). They will also learn to design blended learning experiences (classroom, hands-on, collaboration – both virtual and real, self-paced virtual). They learn to design at scale as well as for exclusive communities of practice. Guided practice or exposition will be provided on needs and audience analysis, design thinking (including user interface basics), development considerations, implementation and evaluation.

Unit 2: Open Educational Resources

Use of Open Educational Resources, Free and Open Source Software (FOSS) will also be discussed in the context of deepening knowledge of content and authentic learning. Different variety of OER and what really contributes to meaningful teaching and learning. UNESCO guidelines and resources for OERs will also be discussed.

Readings – O7 & O8 - ICT and New Media in Education – 1 & 2

Brent G. Wilson (1995). *Constructivist Learning Environments: Case Studies in Instructional Design*. Educational Technology Publications.

Connected Learning Initiative: Curriculum. Retrieved 2018 from <https://clix.tiss.edu/curriculum/>

Excerpts from Brent Wilson's *Constructivist Learning Environments: Case Studies in Instructional Design*

Excerpts from Merriënboer's *Training Complex Cognitive Skills*

Excerpts from *The Social Character of Learning* by Krishna Kumar

Frequently Asked Questions on Creative Commons: <https://creativecommons.org/faq/>

History of Instructional Design

<http://faculty.coe.uh.edu/smcneil/cuin6373/idhistory/1950.html>

ICT and Education: Resources for Teaching and Learning. Retrieved 2018 from <https://bangkok.unesco.org/content/ict-education-resources-teaching-and-learning>

Online materials on digital cultures, instructional technologies, and contemporary digital devices and platforms

Opening Up Education: The Collective Advancement of Education through Open Technology, Open Content, and Open Knowledge Edited by Toru Iiyoshi & M. S. Vijayakumar

Overview of Instructional Design – Processes, Theories and Models (Hand-outs)

Research-Based Principles for Designing Multimedia Instruction by Richard E. Mayer
http://hilt.harvard.edu/files/hilt/files/background_reading.pdf

Richard E. Mayer (2009). *Research-Based Principles for Designing Multimedia Instruction*. Retrieved August 19, 2016, from http://hilt.harvard.edu/files/hilt/files/background_reading.pdf

O9 - Strategic Leadership and Management for School Transformation - 1

Course description

This course will address the leadership and management cadres of the State Governments' Department of Education and will also be relevant to privately managed teacher education institutions, as well as University faculty who are responsible for providing academic leadership to teacher education institutions.

Course content

Unit 1 Futuring and Visioning in Leading Schools

Future educational systems are expected to transform from institutions with a strong emphasis on teaching to organizations with an increased emphasis on learning. Educators need to take an inventive approach to evolving teaching approaches and a creative mindset to design learning. To prepare for the future, school leaders need to explore a few fundamental questions: How much learning are students actually experiencing in school? What information and skills will they need to succeed in the future? How can we align learning to developing problem-solving skills, entrepreneurial thinking and work life competencies? This seminar will address the above challenges. Participants are also encouraged to discuss in groups on what the schooling in the future is likely to be.

Unit 2 Managing Talent, Managing Performance

School principals have a major responsibility in maintaining and improving the quality of their schools. Talent management is the critical factor in determining the potential performance of individuals, groups and organizations, but the ability to manage performance is often the major differentiator between organizations that produce adequate results and those that excel. Related to staff management is staff appraisal. The appraisal or evaluation of staff performance has always been a challenge to school leaders. Appraisal of performances often focuses on past work and accomplishments, quality and volume of work done, and in recent times, capacity for change and innovation. Staff appraisal however, is only a part of the wider performance management framework of an organization. Hence, the appraisal of staff will have to be more than just quantitative and qualitative assessments of work done but have to be integrated into the general approach of staff management. In this session, we discuss various strategies (such as professional development, personnel management, welfare and incentives, etc.) that could be used to attaining quality teaching through quality teaching staff and how staff can be objectively appraised.

O10 - Strategic Leadership and Management for School Transformation - 2

Course description

This course will address the leadership and management cadres of the State Governments' Department of Education and will also be relevant to privately managed teacher education institutions, as well as University faculty who are responsible for providing academic leadership to teacher education institutions.

Course content

Unit 1 Strategic Planning & Change Management for School Development

Planning for leading and developing 21st century schools into centres of excellence into the future requires meticulous planning and consensus building. The plan is the road map to success and the planning process unites organizational leadership and enhances the communicating of critical information to all staff members of the organization. This “hands-on” seminar will bring the participants through the various stages of strategic planning and they include laying the foundation for the plan; scanning the education environment; collecting and analyzing data, stating vision, mission and values; prioritizing needs and identifying risks; documenting and communicating the plan and maintaining the plan.

Unit 2 Every School, A Good School: Made to Measure (15 hours)

Many public education systems grapple with the issue of assessing the quality of schools. In Singapore, we aim to transform every school into a “good school”. What are the characteristics of a “good school”? What makes every school a “good school”? While the concept of a “good school” may vary from one country to another, are there characteristics that can be used to describe a “good school” in any education system all over the world? These questions are all the more significant when we know that education and the nature of schooling is facing uncertain future. This seminar offers participants the opportunity to reflect on a series of fundamental questions related to the concept of a “good school”, with specific comparative references to the Singapore education system respectively. It examines what a school should be measured and how it should be measured.

Readings – O9 & O10 - Strategic Leadership and Management for School Transformation – 1 & 2

Robinson, K. (2014). *Creative Schools: The Grassroot Revolution That's Transforming Education*. New York: Viking.

Gerver, R. (2014). *Creating Tomorrow's Schools Today*. New York: Bloomsbury.

World Education Research Association-International Research Network Teacher Education Symposium (2013). *Teacher Education for the 21st Century: Developing Teachers who are Thoughtful, Reflecting and Inquiring*. Singapore: National Institute of Education, Nanyang Technological University.

Goldhaber, D. (2009). *Creating a new teaching profession*. Urban Institute Press.

Tolhurst, J. (2010). *The Essential Guide to Coaching and Mentoring*. Longman Pearson Education.

Odden, A. (2011). *Strategic management of human capital in education: improving instructional practice and student learning in schools*. Routledge.

Tranter, S. and Percival, A. (2006). *Performance Management in Schools: Unlocking your Team Potential*. Longman Pearson Education.

Hildrew, C. (2018). *Becoming a Growth Mindset School: The Power of Mindset to Transform Teaching, Leadership and Learning*. Routledge Reading List:

Bernhardt, V. L. (2017). *Measuring what we do in schools: how to know if what we are doing is making a difference*, ASCD Publication.

Teng, S. See. (ed.) (2019). *Equity in excellence: experiences of East Asian high-performing education systems*. Singapore: Springer.

O11 - Comparative Studies in Teacher Education - 1

Course Description

The course will draw primarily on empirical understandings of teacher education across the states of India and in different country contexts and use conceptual frameworks of

comparative education. The course will engage participants in exploring these practical experiences, theories and tools to gain broader perspectives on teacher education, through an understanding of socio-historic contexts and international development that inform and shape policies and practices in country contexts.

Objectives

1. Explore current approaches and trends in comparative and international education
2. Develop an understanding of what defines comparative education as a field of study, including its methodology and major concepts
3. Acquire comparative education research skills, including the development of research questions that can be approached comparatively and the methods best suited for different type of questions.

Course Content

Unit 1 International and Comparative Education - Mapping the field

This unit will engage with introduction to international and comparative education along with key approaches and methods in comparative education. While developing a critical understanding of situating the researcher in the context of comparative education, the opportunities and challenges of undertaking international and comparative education research will be discussed.

Unit 2 International Education and Development - Politics, Policies and Practices

The unit will look at the neoliberal context and critically analyse the inequality in education across the global north and south. It will engage with the international goals on education from Jomtien to SDGs and consider the global framing of issues around teachers and teacher education. The theme of Equitable and Quality Education for All will be the focus of the unit to understand factors that can influence educational change, and reflect on how educational policy and practice have evolved at national and global levels.

O12 - Comparative Studies in Teacher Education - 2

Course Description

The course will draw primarily on empirical understandings of teacher education across the states of India and in different country contexts and use conceptual frameworks of comparative education. The course will engage participants in exploring these practical experiences, theories and tools to gain broader perspectives on teacher education, through an understanding of socio-historic contexts and international development that inform and shape policies and practices in country contexts.

Objectives

1. Develop an understanding of global perspectives in Teacher Education

Course Content

Unit 1 Systemic Issues in Teacher Education

Starting with the current discourse of considering education as a policy problem, the unit will engage with analysing policy frameworks of different countries. The issue of governance and regulations of teacher education will be considered with a specific focus on India and its unique problem of a large number of private providers. The current discourse on standards and a comparative analysis of standards of teachers and teaching in different country contexts will be studied. Financing and Economics of Education will be taken up as a thematic study to understand the complexities and contradictions in reform efforts in teacher education globally.

Unit 2 Teachers and Teacher Professional Development

This unit will look at the teacher workforce in terms of its composition and status in different country contexts. It will engage with a thematic study of the complex issue of teacher professional development in terms of its contestations, confusion and paradoxes while looking at cases of international experiences in TPD. Global perspectives on researching teachers and TPD programmes will be studied.

Readings – O11 & O12 - Comparative Studies in Teacher Education –1 &2

Rizvi, F. and B. Lingard (2010). *Globalizing education policy*. London: Routledge.

Apple, M.W., Kenway, J., & Singh, M. (Eds.) (2005) *Globalizing Education: policies, pedagogies and politics*. New York: Peter Lang.

Arnone, R., & Torres, C.A. (Eds.) (2003) *Comparative Education: the dialectic of the global and the local*, 2nd ed. Lanham: Rowman and Littlefield

Lauder, H., Brown, P., Dillabough J. & A. H. Halsey (Eds) (2006) *Education, Globalization, and Social Change*, Oxford University Press: Oxford

UNESCO Global Monitoring Report Paris: UNESCO [various years]

Kingdon, G.G., Little, A., Aslam, M., Rawal, Sh., Moe, T., Patrinos, H., Betteile, T., Banerji, R., Parton, B., Sharma, Sh.K. (2014), *A rigorous review of the political economy of education systems in developing countries*, Department for International Development

Sayed, Y & Badroodien A with Rodrigues, D & Hanaya, A (2016) *Social Cohesion, Social Justice, Violence and Education in South Africa* in Seedat, M & Suffla S (eds): *Peace: A Global Perspective*

Sayed, Y., & Novelli, M. (2016). *The Role of Teachers in Peacebuilding and Social Cohesion: A synthesis report of South Africa, Uganda, Pakistan and Myanmar case studies*. Research Consortium Education and Peacebuilding, University of Sussex

Sayed, Y., Badroodien, A., McDonald, Z., Salmon, T., Balie, L., De Kock, T., Hanaya, A, Skirhotte-Kriel, W, Gaston, J., Foulds, K. (2015). *Teachers and youth as agents of social cohesion in South Africa*. Cape Town, South Africa: Centre For International Teacher Education.

Sayed, Y. & Ahmed, R (2015) 'Education quality, and teaching and learning in the post-2015 education agenda'. International Journal of Educational Development (IJED). 40, Pp. 330-338.

Soudien, C, Sayed, Y & Pillay, S (2015) 'The Making of Identity and Africa: Voices of the struggle to be African in South Africa' in Napier, D (ed.) International Perspectives on Race (and Racism), Nova Science Publishers

Some Relevant Journals

Comparative Education ;Comparative Education Review ;Compare

International Journal of Educational Development;International Review of Education

Prospects; Journal of Development Studies; Journal of International Development

World Development

O13 - Language Education: A TPCCK approach - 1

Course Description

This course explores the layers of language and how it is a vital tool in the growth of an individual within different speech communities. Language is understood as not only a means of communication but a way of culture and is one of the most powerful ways that a person grows intellectually, imaginatively and emotionally.

The course aims to address many issues related to the learning and teaching of languages. For instance, some non-negotiable elements in the teaching of any language are very important, such as the need for teachers to adopt methods that support children to make meaning and extend their language in creative ways. In addition in the early years there needs to be a focus on oral work and a flexibility that recognizes the significance of the child's home language(s). There are other important aspects such as ways of teaching a language, as well as differences between Indian languages and English that impacts the way the basics of reading and writing are most effectively taught. Further, it is important to understand that the concept of literacy is part of a wider learning process that supports students and teachers to interpret, reflect on, question and critique given texts, as well as enabling them to compose and construct their own texts.

The course also discusses how language is related to power and how some languages are privileged and others are marginalized for political, historical and social reasons. Issues of the dominance of English and standard forms of regional languages that reflect wider patterns of discrimination on account of class, caste and ethnicity are also discussed.

Aims and Objectives

This course aims to enable teacher educators to:

1. Explore some of the foundational ideas about language, culture and communication.
2. Recognize that literacy, identity and power are closely related.
3. Understand that literacy is a cognitive development of an individual's skills situated within particular socio-historical and cultural contexts.
4. Experience that 'becoming a reader' is a life-time's journey that includes taking on a critical stance towards a text. Support teachers to teach language in a dynamic and engaging way.
5. Understand the special challenges of teaching a second language where children have only limited exposure outside the classroom.
6. Appreciate the need to build bridges between the languages of home and school.
7. Develop tools to analyse what makes a meaningful text for children to read and respond to.
8. Look at ways to encourage children to write or use technology/digital means to create texts of different genres.
9. Support teachers to see literature as a powerful means to connect to the world.
10. Support teachers to use technology/digital means to share ideas and resources

Course content

Unit 1: The Layers of Language

This introductory unit explores how language can be viewed from many perspectives including the personal and the socio-cultural angles. It also explores some of the different functions of language. The unit also opens a discussion on the relationship between language and education. Unit One discusses how verbal and non-verbal forms of language complement each other. It also looks at how a single word can have multiple associations and meanings that are both shared and personal. The thrust of this unit would be to explore how language enables us to reflect, interpret and share our own experience and to learn from others' experiences.

Unit 2: Becoming a Reader and Writer

Unit Two explores how literacy can be understood and how it is both a cognitive process and a form of social practice. It looks at how children come differently prepared for the demands of schooling and how the language (s) of home need to be integrated into school. It also looks at how becoming a reader has different aspects and that we continue to grow as readers throughout life. The aspects of reading include code-breaking, meaning-making, connecting to and critiquing a text.

Unit 3: The Multilingual Context

In this Unit the difference between building and extending home languages and introducing an unfamiliar language are discussed. Questions of standard and non-standard language are raised and the challenge of bridging spoken language and written forms are explored. The challenges of teaching English in a meaningful way when there is minimal exposure to it outside the school context is explored. (In this Unit TEs could choose to focus either on teaching English as a second language or the teaching of Kannada.)

O14 - Language Education: A TPCK approach - 2

Course Description

This course explores the layers of language and how it is a vital tool in the growth of an individual within different speech communities. Language is understood as not only a means of communication but a way of culture and is one of the most powerful ways that a person grows intellectually, imaginatively and emotionally.

The course aims to address many issues related to the learning and teaching of languages. For instance, some non-negotiable elements in the teaching of any language are very important, such as the need for teachers to adopt methods that support children to make meaning and extend their language in creative ways. In addition in the early years there needs to be a focus on oral work and a flexibility that recognizes the significance of the child's home language(s). There are other important aspects such as ways of teaching a language, as well as differences between Indian languages and English that impacts the way the basics of reading and writing are most effectively taught. Further, it is important to understand that the concept of literacy is part of a wider learning process that supports students and teachers to interpret, reflect on, question and critique given texts, as well as enabling them to compose and construct their own texts.

The course also discusses how language is related to power and how some languages are privileged and others are marginalized for political, historical and social reasons. Issues of the dominance of English and standard forms of regional languages that reflect wider patterns of discrimination on account of class, caste and ethnicity are also discussed.

Aims and Objectives

This course aims to enable teacher educators to:

1. Explore some of the foundational ideas about language, culture and communication.
2. Recognize that literacy, identity and power are closely related.
3. Understand that literacy is a cognitive development of an individual's skills situated within socio-historical and cultural contexts.
4. Experience that 'becoming a reader' is a life-time's journey that includes taking on a critical stance towards a text. Support teachers to teach language in a dynamic and engaging way.
5. Understand the special challenges of teaching a second language where children have only limited exposure outside the classroom.
6. Appreciate the need to build bridges between the languages of home and school.
7. Develop tools to analyse what makes a meaningful text for children to read and respond to.
8. Look at ways to encourage children to write or use technology/digital means to create texts of different genres.
9. Support teachers to see literature as a powerful means to connect to the world.
10. Support teachers to use technology/digital means to share ideas and resources

Course content

Unit 1: Growing in Literacy and Connecting to the World through Literature

In this unit the aims of language teaching in schools to extend beyond basic literacy will be discussed. Teacher educators will discuss the relevance of teaching listening skills, oracy and grammar. Teacher educators will share their experiences in literature to reflect on how literature helped them grow. Teacher educators in small groups compile a selection of material –poems, plays, short stories of one particular writer of their choice. Participants will look at the potential significance of children’s literature in children’s lives and look through children’s literature and compile poetry suitable for children thematically. This Unit would also look at how TEs could support teachers to mediate literary texts through a range of activities to bring reading alive for children. TEs would explore strategies to support children’s independent writing. TEs would critique the textbooks and look at supporting teachers to critique and use the textbooks meaningfully as one of the resources in a language classroom.

Unit 2: Sharing of ideas

This unit will focus on teacher educators discussing modes of sharing ideas and experiences. In this unit, teacher educators will analyze the resources available online such as NROER, British Council, Sampada etc., and present how they would contextualize to use it in their classroom/workshop. They will also explore the means through which they would share their experience with a wider audience. TEs will explore the English and Kannada language learning apps that are sprouting, critique them and discuss their suitability in their programmes

Readings O13 &O14 - Language Education: A TPCK approach –1 &2

Crystal D., ‘The Functions of Language’ From “The Cambridge Encyclopaedia of Language

Understanding of literacy http://www.unesco.org/education/GMR2006/full/chapt6_eng.pdf

Introduction to the Four Resource Model to Literacy (Freebody & Luke, 1990, Freebody, Ludwig & Gunn, 1995, Luke & Freebody,1999)

Jhingran D., ‘Hundreds of Home Languages in the Country and many inmost Classrooms: Coping with Diversity in Primary Education inIndia.’

Berntsen M., ‘Standard and Non-standard Language: The Teachers’ Stance

Light brown P.M., Spada N. How Languages are Learned–

Cameron L.,’ Teaching Language to Young Learners

NBT’s Guide to Good Books

Mehrotra D.P., Ramachandran N. Stories in a SchoolBag

Bhattacharya, R., Madan, A., Sarkar, S., Basu, N., ().Running Feet. Bhopal, India: Eklavya Publication.

K V Tirumalesh, ‘SamruddhaKannada’

Karant S, 'Language, Education and Research'

NCF 2005 Position Paper, 'Teaching of Indian Languages'

<http://mhrd.gov.in/national-repository-open-educational-resources>

<https://www.britishcouncil.org/school-resources>

<https://www.youtube.com/channel/UCqhGTXvo6UstEZNIiphvaVA>

O15 - Science Education: A TPCK approach -1

Course Description

This course addresses the professional needs of teacher educators working with student teachers/ practicing teachers. It aims to provide help with the basic principles and recent relevant developments in the sector so that they are equipped with necessary knowledge, skills and tools. It is therefore important for teacher educators to have an integrated understanding in science by examining the relationship between science and society and understanding the social impact of science and vice versa.

The course helps participants to understand one's own notion of science, as their view gets reflected in their practices. Participants are expected to engage with questions such as 'how does knowledge of science evolve,' 'what constitutes knowledge of school science', 'what are the resources that can be used to make science teaching effective,' 'how to discern between 'good' and 'bad' resources'. They will also analyze the relevance and limitations of various curricula that has been developed in various contexts and tried in classrooms.

This course would help teacher educators critically engage in and promote inquiry as a means to teaching-learning science rather than as a vast body of facts and infallible information. Various tools and techniques of assessment and evaluation of science teaching and learning will also be dealt with.

Objectives:

At the end of the course teacher educators will be able to:

1. Analyse their own notions of science and gain an understanding of meaning, nature and scope of scientific knowledge and method
2. Understand the purpose of teaching science and its place in the school curriculum.
3. Develop an insight on the aims of science education and analyse relevance, limitations and rationale of school science curriculum.
4. Explore and examine the ethical, environmental and social impact of science and technology to understand the relationship between science and society.
5. Strengthen pedagogical content knowledge in science.
6. Understand assessment frameworks and appropriate tools for assessment.

Course content

Unit 1: Nature of Science

- What is science?
 - What is scientific method/ knowledge? Is there a method?
 - History and Philosophy of science and its implication for classroom teaching
 - Science and Social Justice Issues; Critiques of science from feminist and cultural perspectives
- Science-Technology-Society interface

Unit 2: Science Concepts & Process Skills

- What are scientific facts, concepts, principles, theories, laws?
- Science Process Skills
- Revisiting school science
- How children learn concepts and skills

Participants have to work with any two topics. For one topic, they are expected to engage with select core concepts and for the second topic a process skills approach is to be adopted.

Unit 3 : Resources

- Creating/collating resources for science classrooms
- Setting up low-cost/improvised science lab
- Organising field trips, science exhibitions/fairs, visits to museums, botanical gardens, planetariums and so on
- Reviewing & critiquing science resources including textbooks
- Popular science reading & writing as classroom resources : Reviewing popular articles on science from newspapers, science magazines; Writing short articles reporting scientific investigations taken up in classrooms.

O16 - Science Education: A TPCK approach -2

Course Description

This course addresses the professional needs of teacher educators working with student teachers/ practicing teachers. It aims to provide help with the basic principles and recent relevant developments in the sector so that they are equipped with necessary knowledge, skills and tools. It is therefore important for teacher educators to have an integrated understanding in science by examining the relationship between science and society and understanding the social impact of science and vice versa.

The course helps participants to understand one's own notion of science, as their view gets reflected in their practices. Participants are expected to engage with questions such as 'how does knowledge of science evolve,' 'what constitutes knowledge of school science', 'what are the resources that can be used to make science teaching effective,' 'how to discern between 'good' and 'bad' resources'. They will also analyze the relevance and limitations of various curricula that has been developed in various contexts and tried in classrooms.

This course would help teacher educators critically engage in and promote inquiry as a means to teaching-learning science rather than as a vast body of facts and infallible information. Various tools and techniques of assessment and evaluation of science teaching and learning will also be dealt with.

Objectives:

At the end of the course teacher educators will be able to:

1. Analyse their own notions of science and gain an understanding of meaning, nature and scope of scientific knowledge and method
2. Understand the purpose of teaching science and its place in the school curriculum.
3. Develop an insight on the aims of science education and analyse relevance, limitations and rationale of school science curriculum.
4. Explore and examine the ethical, environmental and social impact of science and technology to understand the relationship between science and society.
5. Strengthen pedagogical content knowledge in science.
6. Understand assessment frameworks and appropriate tools for assessment.

Course content

Unit 1: Reviewing & assessing Science curriculum, plans, classrooms

- Aims of teaching science-why are we teaching science?
- Considerations and approaches in Science curriculum
- Inquiry based teaching-learning of science
- Catering to needs of learners with disabilities and organising inclusive science classrooms
- Integrated theme based learning
- Education for sustainable development

Unit 2: Assessment & evaluation

- Assessment of science teaching and learning: Introduction; classroom environments that support meaningful learning in science; connecting teaching and learning
- Tools and techniques to assess conceptual understanding and process skills: Rubrics for performance in tasks; ratings; annotated drawings/pictures/illustrations/graphic organisers; explanation and representation analyses; probes; guided reciprocal peer questioning; informal interviews; K-W-L variations; learning goals inventory.
- Selecting assessment techniques to match teaching/learning goals
- Probing, analysing and documenting children's alternative ideas in science
- Evaluating science classrooms: designing different types of tools; Portfolios and performance evaluation; scoring rubrics; Criteria for evaluating, grading and reporting.

Readings – O15 &O16 - Science Education: A TPCCK approach -1 &2

- McComas, William F. (ed.) (1998). *The Nature of Science in Science Education: Rationales and Strategies*, Netherlands : Kluwer Academic Publishers.
- Rampal, A. (1992). Images of Science and Scientists: A study of School Teachers' Views. I. Characteristics of Scientists. *Science Education*. 76(4), 415-436.
- Brickhouse, N. (2001). Embodying Science: A Feminist Perspective. *Journal of Research in Science Teaching*, 38(3),282-295.
- Kamala Mukunda. (2009). Chapter 2 Learning in What did you ask at School today? New Delhi: Harper Collins. pp: 22-50
- Balasubramanian. D. (October, 2008). Why do we teach Science? *Teacher Plus*, (pp.4-7)
- NCERT. (2006). *The Position Paper on Teaching of Science*. NCERT: New Delhi
- Karen, Haydock. (2011). 'Why do we have problems learning and Teaching Science?' *Contemporary Education Dialogue* (8[2]), New Delhi: Sage Publications
- Gess-Newsome, J & Lederman, N.G. (2002). *Examining Pedagogical Content Knowledge*. NY: Kluwer Academic Publishers. Chapter 4 pp 95-115
- Nawani, D. (2010). *School Textbooks: Understanding Frameworks for Analysis*. *Contemporary Education Dialogue*. 7(2); pp157-192.
- Nawani, D. (2016). *Teaching-Learning Resources for School Education*. New Delhi: Sage. Chapter 2 - Nawani, D. Conceptualising Teaching Learning Resources. pp: 22-42 and Chapter 4 - Sarangapani, P. Resources in Teaching Learning: Cognitive and pedagogic considerations. pp: 63-76.
- Wellington, J. J. and Osborne, J. (2001). *Language and Literacy in Science Education*. California: Open University Press. Chapter 6: Discussion in School Science: Learning Through Talking, Chapter 5: Writing for Learning Science.
- Harlen, W. (2006). *Teaching, Learning and Assessing Science 5 – 12*. London: Sage. Part 3 – Using Assessment for Learning
- Seely, A. E. (1995). *Integrated thematic units*. Westminister, CA: Teacher Created Materials, Inc. Chapter 3- Developing Integrated Thematic Units and Chapter 6 - Assessment Issues for an Integrated Curriculum
- Fernsten, L., & Fernsten, J. (2005). Portfolio assessment and reflection: Enhancing learning through effective practice. *Reflective Practice* 6(2),303–309.
- Natarajan, S. Chunawala, S. Apte and J. Ramadas. (1996). *Diagnosing Learning in Primary Science (DLIPS) Part-1 & 2*, Technical Report No. 30. Mumbai: Homi Bhabha Centre For Science Education.

O17 - Social Science Education: A TPCCK approach -1
Course Description

This course aims to strengthen the professional capacities and enhance the role played by teacher educators to support student teachers/practicing teachers. It helps them refresh their knowledge in context of current developments in the field. The course also hopes to help the participants revisit and analyse their earlier theoretical knowledge in light of the field experiences they have collected during their professional life and add new inputs received during this course period. It is hoped that these experiences will enable them to transfer their insights to student teachers.

A balance between scientific rigor and firm grounding in universal values of social justice and environmental sustainability will be essential as there are varied realities and cross-cutting strands of understanding a certain phenomenon. This is particularly relevant today in the context of our country which is replete with diversity and is facing increasing complexity as the world comes closer. It is thus necessary that content, pedagogy and assessment be used dynamically and in an integrated manner by placing the learners in the center. Identification and use of appropriate resources also needs to be part of this process.

Assessment in Social Science also calls for a specific approach. Information becomes relevant to us as learners when used for building our understanding about society through comparing, explaining, reasoning, inferring about social situations and human efforts. Thus the use of these abilities along with the relevant knowledge of societies should be recognised as the indicators of learning in social sciences. The structured inputs should enable the participants to experience the real process of assessment of social science learning and begin to reflect on their role as teacher educators and persons engaged with supporting adult learners.

Course content

Unit 1: Teaching of Social Sciences: Why, What and How

- Why do we need Social Sciences ? What contribution do they make to education and society?
- What were the historical conditions for the need for studying society scientifically? How does this understanding impact the teacher/teacher educator's understanding of the subject?
- Are the goals of Social Sciences essentially normative? How then do they stand the test of Positivist traditions?
- While the philosophy of Positivism and the 'Scientific Method' are the core defining features of sciences; do we need to re-calibrate the lens while studying social phenomenon? Do we need to examine the vantage point of the social scientist?
- Does the method of Social Science empower or disempower certain social groups? Do we need plurality of methods to study social phenomenon?

Unit 2: Children's Understanding of Social Sciences

- What is the appropriate age to introduce children to Social Science learning? Why?
- Social science concepts begin forming from 'Pre-Operational stage'. Should formal education (in Social Sciences) intervene at this stage? What should be the approach in

the later years during the stages of ‘Concrete Operation Stage’ and ‘Formal Operations’? Why?

- In the age where mass-media and social media have a dominant role in shaping children’s/adolescents’ ideas of society/world what is the challenge for the formal teaching of Social Sciences?
- While the syllabus is supposed to be arranged age-appropriately does children’s exposure of the world through mass-media/social media often short circuit the way they grow up? How does the Social Science teacher address this challenge?
- Most Indian schools rely on textbooks as main source of school knowledge. Text-books usually do not sufficiently address the diversity in our society. How should Social Science teacher/teacher educators account for this challenge?
- What are the implications if diversities are overlooked/not accounted for in formal learning? Should children be simply exposed to diversity or be made aware about the lack of it?

Unit 3: Key Concepts and Process Skills

- Understanding important concepts of generic nature in context of Social Sciences – Continuity and Change, Time, Chronology, Space and location. Causality, Evidence and Interpretation.
- Understanding important concepts particular to branches of Social Science – i) Society- social stratification, hierarchy, hegemony, marginalization, diversity. discrimination ii) Culture and Civilization, Cultural capital iii) Governance – Power – Authority, State, Nation-State, and Citizen/Subject, Nationalism, iv) Space and Geography – Natural and Social Resources, Control and Distribution. v) Economy– Public and Private, ‘Development and Progress’, Market and exchange.
- Is it useful to base the pedagogy from ‘structure of discipline’ approach? What are the possible advantages and drawbacks?
- For a Social science teacher/teacher educator what role does ‘Praxis’ play?
- Is there Content-Process binary or are they inalienable from each other?
- Does learning in social sciences necessitate developing abilities for comparing, explaining, reasoning, inferring about social situations and human efforts? Should the use of these abilities along with the relevant knowledge of societies be recognised as the indicators of learning in social sciences?

O18 - Social Science Education: A TPCCK approach -2

Course Description

This course aims to strengthen the professional capacities and enhance the role played by teacher educators to support student teachers/practicing teachers. It helps them refresh their knowledge in context of current developments in the field. The course also hopes to help the participants revisit and analyse their earlier theoretical knowledge in light of the field experiences they have collected during their professional life and add new inputs received during this course period. It is hoped that these experiences will enable them to transfer their insights to student teachers.

A balance between scientific rigor and firm grounding in universal values of social justice and environmental sustainability will be essential as there are varied realities and cross-cutting strands of understanding a certain phenomenon. This is particularly relevant today in the context of our country which is replete with diversity and is facing increasing complexity as the world comes closer. It is thus necessary that content, pedagogy and assessment be used dynamically and in an integrated manner by placing the learners in the center. Identification and use of appropriate resources also needs to be part of this process.

Assessment in Social Science also calls for a specific approach. Information becomes relevant to us as learners when used for building our understanding about society through comparing, explaining, reasoning, inferring about social situations and human efforts. Thus the use of these abilities along with the relevant knowledge of societies should be recognised as the indicators of learning in social sciences. The structured inputs should enable the participants to experience the real process of assessment of social science learning and begin to reflect on their role as teacher educators and persons engaged with supporting adult learners.

Course content

Unit 1: Developing an understanding for Selection and Use of Resources:

- What are Learning Resources and why do we need them?
- Are Learning Resources external to the teacher, the learner, the classroom process and our experiences?
- In context of India; where do textbooks stand vis-a-vis Learning Resources?
- What distinguishes ‘Teaching Aids’ and ‘Learning Resources’?
- What are the underlying principles for appropriate selection of learning resources?

Unit 2: Assessing Social Science Learning:

- In Social Science learning environment can students be encouraged to give answers that go beyond the categories of ‘right’ and ‘wrong’?
- Is it sufficient to rely on exam paper, written assignments to assess learning in Social Sciences? Why?
- What are the indicators of Social Science learning? Are they separate from the process of teaching-learning?
- How do we need to re-evaluate the role examinations play in education and develop stronger alternatives and reforms?

Unit 3: Social Sciences in the Changing World – Challenges and Possibilities

- Are social sciences marginalized in the hierarchy of school subjects? Why?
- Is the marginalization of Social Sciences an accident or is it a phenomenon unleashed by vested interests?
- Has the role/responsibility of Social Sciences increased in our lives where experiences are increasingly mediated by mass/social media and above all where the world is integrated economically but fractured socially?

- What needs to be done to make Social Sciences relevant, engaging and attractive as an epistemological experience and socially viable choice?

Readings –O17 &O18 - Social Science Education: A TPCCK approach – 1 &2

E. Wayne Ross (ed.), *The Social Studies Curriculum: Purposes, Problems, and Possibilities*, Chapter 1

‘Foundations for Social Studies’, from Howard D. Mehlinger (ed.), *UNESCO Handbook of Social Studies*, pp. 36-57

‘Redrawing the lines’ in Hursh and Ross (eds.), *Democratic Social Education*, Chapter 3

W.H. Burston and C.W. Green (eds.), *Handbook for History Teachers*, Chapter 1

Krishna Kumar, *Prejudice and Pride: School Histories of the Freedom Struggle in India and Pakistan*, Chapters 1 and 2.

James Loewen, *Lies my Teacher Told me: Everything your American History Textbook got wrong*, Chapters 1 and 2.

Avril Powell, ‘Perceptions of the South Asian Past: Ideology, Nationalism and History

Textbooks’ in Nigel Crook (ed.), *The Transmission of Knowledge in South Asia: Essays on Education, Religion, History and Politics*, pp.80-124

Nozaki Yoshiko and Inokuchi Hiromitsu, ‘Japanese Education, Nationalism, and Ienaga Saburo’s Textbook Lawsuits,’ in Laura Hein and Mark Selden (eds.), *Censoring History: Citizenship and Memory in Japan, Germany, and the United States*

Graves, N (1996), ‘The intellectual origins of late nineteenth and early twentieth century textbooks British Geography books’ *Paradigm*, 19, May 1996.

D.R Stoddart (1986), *On Geography and its history*, Basil Blackwell, New York

John Arnold, *History: A Very Short Introduction*

E.H. Carr, *What is History?* Marc Bloch, *The Historian’s Craft*

Billings, M; Gregory, D; Martin, R (eds) (1984), *Recollections of a revolution: Geography as social science*, Macmillan, London

Gore, C (1984), *Regions in question*, Methuen, London & New York.

Findlay, Allan & Findlay, Ann (1987), *Population and development in the third world* Methuen, London & New York.

Cooke, Philip (1985), ‘Class practices as regional markers’ in Gregory, D and Urry, J (eds) (1985), *Social relations and spatial structures*, Macmillan, London.

M. Donaldson (1978), *Children’s Minds*, Flamingo, London.

Alex M. George, 'Children's Perceptions of Sarkar: The Fallacies of Civics Teaching', from Contemporary Educational Dialogue Vol 1:2, Spring 2004, pp.228-257

Krishna Kumar, Learning from Conflict

E. Wayne Ross, 'Not only Words: Connecting the Pedagogy of Paulo Freire with the Social Studies Classroom', in Hursh and Ross (eds.), Democratic Social Education

R. H. Mayer, 'Connecting narrative and historical thinking: A research-based approach to teaching history', Social Education, 62, February 1998, pp.97-100.

Norman J. Graves (ed.), New UNESCO Handbook for Geography Teaching, Chapters 2 and 3

Howard D. Mehlinger (ed.), UNESCO Handbook of Social Studies, Chapters 5,6 and 7

Stephen Rowland, 'Classroom Enquiry: An Approach to Understanding Children', from D. Hustler et.al. (eds.) Action Research in Classrooms and Schools, pp.25-35

Madan Sarup, 'The importance of classroom studies' Marxism and Education, pp. 68-84

'Social Studies as an Integrated Subject', from Howard D. Mehlinger (ed.), UNESCO Handbook of Social Studies, pp. 57-77

Eklavya, 'Insider's Narrative' from Eklavya Social Science Project Report

Maurice Hunt (ed.), The Monash Project: A New Approach to Social Sciences, Chapter 1

Hilda Taba, Mary Durkin, Jack Fraenkel, Anthony H McNaughton The Teachers' Handbook to Elementary Social Studies –(Addison Wesley)

Paul Mathias The Teachers' Handbook for Social Studies (Blandford Press London, 1973)

Lawton, Campbell and Burkitt Social Studies 8-13-, Schools Council Working Paper 39, Evans Metheun Educational, 1971

O19- Mathematics Education: A TPCK approach -1

Course Description

This course addresses the professional needs of teacher educators working with student teachers/ practising teachers. It aims to provide help with the basic principles and recent relevant developments in the sector so that they are equipped with necessary knowledge, skills and tools. The need for such interventions has been extensively recognised by the curricular designers and has been an important recommendation in the past. The NCFTE 2009 says "Short-term courses could be designed for the professional development of in-service teachers along the line of courses designed by IGNOU in Primary Mathematics Teaching". This helps the participants to achieve a state of readiness, willingness and enthusiasm to address any professional challenges arising out of new programmes being implemented.

This course takes a meta-cognitive approach to the course content and its organisation. It gives them an overview of the course and encourages them to match the content and

methodology with their perceived needs. This would enable bridging the gaps between the theory and practice and consequently move on to reflective practice and more effective teaching.

Objectives

At the end of the course teacher educators will be able to

1. Inculcate appreciation and feel for mathematics through a conceptual focus on content refine their professional skills to teach by developing mathematics pedagogical content knowledge
2. Appreciate the incremental and cumulative nature of mathematics
3. Understand assessment frameworks and appropriate tools for assessment rekindle their joy of teaching and learn ways to achieve and sustain it.

Course content

Unit 1: Nature of mathematics

This unit provides a strong framework encompassing the nature of mathematics in the context of school mathematics and it forms the basis of the content and pedagogy. The National Curriculum Framework [NCF] 2005 (NCERT, 2006, NCERT, 2006a) provides the framework for tracing the progress and gradation of the mathematics content. It also outlines the philosophical and epistemological basis of the subject as a domain and provides theoretical foundation for learning and teaching of mathematics. It provides an opportunity for the participants to understand the core ideas of mathematical development as a human endeavour across historical and geographic landscape and relate this knowledge to their own understanding and teaching. The unit draws from the mathematical development through ages with special emphasis on Indian mathematics.

Unit 2 : Principles and practice of mathematics education

This unit deals with multiple ideas related to implementation of the general principles into classroom-specific effective practices. It involves, among other things, classroom management, motivational activities, entry point activities, visualisation, drill, fluency promoting exercises, skill development, theoretical proof, strategic thinking, problem solving, problem posing, abstraction and generalisation. The learning stage follows assessment where the quality of learning will be ascertained and enhanced through appropriate means like catalysing feedback.

This unit will also look at alternative forms of mathematics and their forms and foundational bases such as out-of-school mathematics and culturally embedded mathematical practices. Classroom practices defined around discursive practices set as classroom norms.

Unit 3 : Teaching resources : Creation and validation

This unit focuses on creation and validation of teaching and learning resources useful in mathematics education. The participants understand the basic principles of creating learning resources including but not limited to mathematics. Efforts to make interdisciplinary ones demonstrating the interconnectedness of the disciplines will be explored and proactively encouraged. The application of these in learning situations will be explored and required design changes would be discussed and implemented. The range of resources include

worksheets, games, posters, wall magazines, cartoons and videos. Emphasis will be placed on creating low floor, high ceiling activity and appreciating their significance in our schools with multigrade and multi-level teaching especially in classrooms with children from disadvantaged backgrounds.

Resource creation in pairs or small groups is known to enhance the quality of experience and hence will be adopted. An idea bank containing innovative ideas and resources useful for mathematics teaching is planned.

O20- Mathematics Education: A TPCCK approach -2

Course Description

This course addresses the professional needs of teacher educators working with student teachers/ practising teachers. It aims to provide help with the basic principles and recent relevant developments in the sector so that they are equipped with necessary knowledge, skills and tools. The need for such interventions has been extensively recognised by the curricular designers and has been an important recommendation in the past. The NCFTE 2009 says “Short-term courses could be designed for the professional development of in-service teachers along the line of courses designed by IGNOU in Primary Mathematics Teaching”. This helps the participants to achieve a state of readiness, willingness and enthusiasm to address any professional challenges arising out of new programmes being implemented.

This course takes a meta-cognitive approach to the course content and its organisation. It gives them an overview of the course and encourages them to match the content and methodology with their perceived needs. This would enable bridging the gaps between the theory and practice and consequently move on to reflective practice and more effective teaching.

Objectives

At the end of the course teacher educators will be able to

1. Inculcate appreciation and feel for mathematics through a conceptual focus on content refine their professional skills to teach by developing mathematics pedagogical content knowledge
2. Appreciate the incremental and cumulative nature of mathematics
3. Understand assessment frameworks and appropriate tools for assessment rekindle their joy of teaching and learn ways to achieve and sustain it.

Course content

Unit 1 : Assessment

This is done through projects and focuses on two areas: 1) Professional development - as a teacher; and 2) Personal development - as a person. Consistent with the existing practice in schools, formal assessment will be combined with non-formal ones and will be partly participatory in spirit. Summative and formative assessments will be complementary to each other. The tools include but not limited to pencil-paper tests, projects, quiz, worksheets, presentations, wall magazines etc. and would result in a judicious mix of the above.

Unit 2 : Projects

The participants are required to design, implement and complete a project with suitable theoretical and practical components. The topics can be chosen based on their interest and area of expertise but need to be consistent with the content of the course. The project can be done individually or in small groups where the participants participate and complete the project perhaps through long distance collaborations. Digital tools and resources will be used. It also includes a research component and ensures development of appropriate skills including the development and deployment of required research tools.

The projects will also include :

- creating resources such as artefacts and aids for teaching;
- developing materials for mathematics laboratory observing and assessing classroom practices and identifying criteria for it;
- identifying and developing popular mathematics readings
- reviewing and critiquing school mathematics textbooks
- lesson study

Readings–O 19 &O20- Mathematics Education: A TPCK approach -1 &2

Ball, D.L., Hill, H.C., Bass, H. (2005). Knowing Mathematics for Teaching Who Knows Mathematics Well Enough to Teach Third Grade, and How Can We Decide? American Educator pp 14-48.

Boaler, J. (2015). Mathematical Mindsets: Unleashing Students' Potential, through Creative Math, Inspiring Messages and Innovative Teaching. Jossey -Bass.

Gananath, S.N. (2013) KenKen puzzles and classroom usage. Article in Teacher Plus Magazine, Feb 2013 issue.

Liebeck, P (1984). How Children learn Mathematics. A Guide for Parents and Teachers. Penguin.

Lockhart, Paul (2009). A Mathematicians Lament. Bellevue Literary Press, N.Y.USA.

NCERT (2006). Position Paper National Focus Group On Teaching Of Mathematics , New Delhi: National Council of Educational Research and Training.

NCERT (2006a) (With P.K. Srinivasan) Manual of Mathematics Teaching Aids for Primary Schools, New Delhi: National Council of Educational Research and Training.

NCTM (2000). Chapter 1- A Vision for School Mathematics & Chapter 2 - Principles for School Mathematics Principles and Standards for School Mathematics. The National Council of Teachers of Mathematics.

NCTM (2011) Introduction pp 1-8. Using Classroom Assessment to Improve Student Learning. The National Council of Teachers of Mathematics.

Sawyer, W.W (1943). Mathematician's Delight. Penguin.

Schonfeld, A.H. (2007). Chapter 1 & Chapter 14. Assessing Mathematical Proficiency. Cambridge University Press.

Wu, H (2001). How to prepare students for Algebra. American Educator, Summer 2001.

O21- Practitioner Research

This course is an opportunity for participants to combine theory and related literature drawn from the courses, applying the techniques and methods studied in the research workshops and labs to examine their own practical work-related problem/question in greater depth. It will also enable the participants to systematically obtain and analyse data using existing databases to increase their knowledge about the research topic/question and to draw meaningful conclusions and recommendations from data that are gathered to meet their research objectives. A critical aspect of research is the ability to communicate the findings clearly. Hence, this course will require the participant to write a detailed reflective 8,000 - 10,000 words report. The participant will be mentored by a faculty member through all stages of their research.