

Binay Pattanayak

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EDUCATION:

University of Massachusetts Amherst

Amherst, Massachusetts, US

Online Graduate Course on How Children Learn to Read in Developing Countries - 2016

Harvard University Graduate School of Education

Cambridge, Boston, US

Online plus face to face certificate course on Educational Equity, Quality and Leadership (EQL) - 2015

Berhampur University

Odisha, India

Masters' in Science (Chemistry); Specialization: Organic Chemistry - 1986

Central University of Jharkhand (CUJ)

Kamre, Ranchi, India

Ph. D. in education on 'Mother-Tongue based Multilingual Education – ongoing since 2015

EXPERIENCE:

As Senior Education Consultant, C3 level, World Bank, India for the Tejaswini project for supporting education and life-skills of 1 million out of school adolescent girls in 14-24 age group in Jharkhand, India (2018)

1. Designed the Tejaswini education readiness content for enabling girls class VIII or, class X level examination before they proceed for technical and vocational education leading to their employment.
2. Guiding Tejaswini life-skill team design the training content for providing life-skills training to 1 million out of school adolescent girls before they proceed for education and empowerment in 17 districts of Jharkhand.

As Chief Education Officer-cum-International Liaison, Mo School Abhiyan, a flagship programme of Department of School & Mass Education, Government of Odisha (January 2018 onwards)

1. Co-designed plan for website, posters, newsletter, creative, etc. with Chairperson.
2. Facilitating national and international liaison in collaboration with Chairperson with State Associations and donor agencies in USA, UK, Australia, Finland, etc. for supporting school improvement programmes under *Mo School Abhiyan*.
3. Facilitated partnership with British Council and other partners for improving quality in teacher education and school education in state.
4. Provided technical support to districts in their planning for mobilization of alumni and local partners for school improvement both at state and district level.

As Principal Researcher at Research & Programme Division, Kejriwal Institute for Management & Development Studies (KIMDS), Ranchi (July – December 2017)

1. Conducted a research study titled 'Is Tetri on Road to Sustainable Development Goals - SDGs' to assess preparations and their effectiveness for achieving the SDGs in rural areas. The report is published by the institute.
2. Taught management students of 2017-18 batch about 'Effective Management of SDGs'

As Education Specialist, UNICEF, Jharkhand, India (April 2011 – 30 June 2017)

1. Baal Sansad (Child Cabinet) in all elementary (class I-VIII) and secondary (class XI-X) schools of state: Designed Child Cabinet guidebook and guided establishment of Child Cabinets in all 40000 elementary schools and 3000 secondary schools through democratic school electoral processes, active child participation and student leadership for holistic development of all children.

2. Pre-School Education programme: Designed Bhasha Puliya – pre-school education programme in mother tongue for children’s school readiness in multi-lingual context. Implemented in 1200 Centres
3. Early Grade Reading (EGR) programme: Designed and operationalized EGR programme for 70000 children in 4 underdeveloped districts.
4. MTB-MLE programme: Initiated mother-tongue based multilingual education (MTB-MLE) programme in 5 tribal and 2 regional languages in around 1000 schools with new textbooks.
5. ‘Sports for Development’ programme: Conceptualized and promoted ‘I am a Champion’ – sports for development programme in 480 villages of 12 LWE affected districts through 960 S4D Clubs with dynamic participation of more than 40,000 children for their holistic development.
6. Attendance enhancement and dropout reduction: To address the issue of very low attendance (approx. 55%) of students in schools, designed Prayas programme for state. It is an integrated approach of students, teachers and community members to work with absentees and dropouts to bring them back to school.
7. Activity Based Learning: Promoted Activity based Learning in 235 primary schools of 4 districts. COHORT showed remarkable improvement in terms of student attendance, participation and learning
8. Curriculum renewal for education: Formulated 30 Position Papers through state resource teams on various subjects and issues in education from learning perspective. Developed state curriculum for Pre-School Education, School Education and Teacher Education based on learning theories
9. Successful advocacy for ECCE, quality in residential welfare schools and MTB-MLE

As Education Specialist, UNICEF, Delhi office (November 2009 – mid-April 2011)

1. CFSS framework: In collaboration with my supervisor, finalised the guidelines for Child-Friendly Schools and Systems for India, which was shared with all states for promoting RTE (Right to Education Act) compliant schools.
2. Child-friendly version of the Right to Education Act: Developed ‘Education is My Right!’, a child-friendly version of the Right to Education Act of Government of India in collaboration with my supervisor. This document was initially printed in English, Hindi and Urdu with forewords from the Union Education Minister, Government of India and UNICEF Country Representative. It reached schools in each state. In course of time this was translated and circulated in majority of states in more than 35 languages.
3. Strengthening Teacher Education programme of Govt. of India: Assisted in conceptualization and organization of 4 national seminars on Teacher Education in India. Presented papers in seminars. Assisted in documentation and provided technical support.
4. Capacity building of School Management Committees (SMCs) under the Right to Education Act: Designed SMC training package including ‘Our Children Our School’ training module, series of posters, and guidebooks, leaflets, stickers, bookmarks, etc. for use in states. Majority of states used the material by translating or, adapting the content.
5. Assisted in organization of the 7 day International Seminar on 'Critical Pedagogy' in Kerala with Prof. Michael Apple and team from USA.

As Chief Consultant (Quality Education), Ministry of Education, Govt. of India (January 2000 – November 2009)

1. Guidance to Ministry of Education, Government of India: Assisted Ministry of Education, Government of India in its policy formulation, planning for quality improvement in Education for All (EFA), DPEP, SSA, Teacher Education,

Multilingual Education (MLE), Activity based Learning (ABL), Continuous & Comprehensive Evaluation (CCE), Computer Aided Learning (CAL), and finally Right of Children to Free and Compulsory Education Act (RTE Act).

2. Quality Improvement Framework for nation: Designed quality improvement framework for states in partnership with all key development partners focusing on vision for quality education, curriculum renewal, textbook development, teacher training, pedagogical processes and learning enhancement including learning assessment (CCE), academic support system, community participation, and quality monitoring. This framework is used till today in the system to plan for quality in all states.

3. Quality Monitoring Tools: Assisted NCERT in designing Quality Monitoring Tools for the nation which was used to continuously track and enhance quality outcomes in each quarter of the year.

4. Resource Enhancement Programme (REP): Organised 3 national 15 day orientation REP workshops in collaboration with the best of resource agencies (Delhi university, Digantar, Vidya Bhavan Society, Eklavya, and individual experts to enhance understanding of SCERTs and SSA pedagogical teams in all states of India about students' learning, key enabling elements, role of teacher, nature of pedagogical processes and learning indicators in different subjects, on behalf of the national technical support group of Ministry of Education. REP had a significant impact on the pedagogic planning and programme implementation in all 35 states with focus on 'student learning as per learning theories'.

5. Implementation of National Curricular Framework, 2005: Designed matrices for tracking and supporting curriculum renewal in all states in the light of NCF, 2005 which brought in a paradigm shift from previous curricular plans. Developed Curriculum Renewal Matrix for tracking and enhancing progress of curriculum renewal in the light of NCF 2005 in all 35 states and union territories.

6. Learning Enhancement Programme (LEP): Designed guidelines for a comprehensive LEP for elementary education with focus on Early Grade Reading (EGR) skills and Activity Based Learning (ABL) at Primary level and quality Science, Maths education and English at lower Secondary level. The LEP framework is still used by Ministries at centre and also in all states under SSA/RTE even after more than 12 years of its formulation.

7. Support to formulation of RTE Act: Contributed to the formulation of the historic Right of Children to Free & Compulsory Education Act in areas related to quality education and community participation, which in due course was approved by both Houses of the Parliament and President to be notified in 2010.

8. All State Pedagogy Teams: Guided 35 states to develop strong pedagogic teams including experts in curriculum renewal, pedagogy for learning enhancement, teacher development and teacher education, learning assessment, community engagement, and quality monitoring.

9. Quarterly National Pedagogy Review Meetings: Organized quarterly review meetings for planning strategies for quality improvement and tracking progress 4 times a year. This exercise enabled all pedagogical teams from all states to learn from each other and share their good practices continuously. The healthy competition to learn and excel also was very effective in improving quality in states.

10. National Seminars on Educational Issues: Organized 2-3 national seminars each year on various educational issues including 'How Children Learn', 'Early Grade Reading', 'Child Friendly Schools', 'Early Grade Mathematics', Language education', 'Science Education', 'Pedagogy of Mathematics', 'Pedagogical processes in Social Studies', 'Computer Aided Learning', 'Curriculum Renewal', 'Teacher Education', 'Multi Grade Teaching', 'Activity based Learning', 'Quality Monitoring', 'Planning for Quality Education', 'Academic support to Schools through DIETs, BRCs, CRCs', 'Quality Improvement in Upper Primary Education', Multilingual Education 'MTB-MLE', 'Inclusive Education', 'Building as a Learning Aid', etc. In all these seminars conducted in different states the state pedagogical teams benefited extensively from the presence and experiences/ ideas of the best of resource and research agencies from different places. The

exposure and interactions were very productive in enabling the states design appropriate learning strategies for their children in partnership with these agencies and individual experts.

11. Early Grade Reading (EGR) programme: Assisted Ministry of Education in setting up the 'Reading Cell' at NCERT for designing and operationalizing an EGR programme in all states. Initially it was piloted in schools of Mathura district and then it helped all states. I worked very closely with the 'Reading Cell' and enabled states to use the 'Barkha' graded learning series, magazines, reference materials, training package, resource support and films on EGR. This continues till date.

12. Early Grade Mathematics (EGM) programme: Also assisted the NCERT in developing an EGM programme which included mathematics kit, training package, piloting in 6 states and technical support to all other states for strengthening their EGM programmes. This continues till date.

13. MTB-MLE: Assisted Andhra Pradesh, Odisha, Gujarat, Assam, and other states in designing and implementation of their Mother-tongue based Multilingual Education through regular support, national and regional consultations

14. Active Schools: Documented Active Schools of Latur district at a critical time when it was struggling to continue and shared at state and national level. The state took it up and promoted its pedagogic approach in the name of 'Nanda Deep Shala' in all schools of the state. It was later recognised by ILO as a good practice in pedagogical renewal.

15. Documentation of 50 good practices: While nurturing the quality improvement initiatives in all states, I documented all good practices from states in the name of 'Sprouts with Promise' covering more than 50 good practices from all states.

16. Coordinated a study on best practices on education and equity with ILO

17. Research studies on Quality Education: Coordinated a few national studies of Pedagogy Section: 'Inside the Classroom' on nature of classroom processes in states, and another on 'Learning assessment'. Both the documents were printed by MHRD-Ed. CIL and circulated in all states.

18. Developed the Guidelines for Strengthening and restructuring Teacher Education in India. It was used by all states. I visited states regularly to support the SCERTs and Ministry of Education in their Annual plan development and curriculum renewal. Also I designed the Appraisal Matrix for appraisal of state Teacher Education plans. I was part of the Teacher Education Approval Board (TEAB) of NCTE.

19. Training packages on Science and Mathematics Education: Assisted DEE, NCERT develop a 21 day training package on Science Education and also Mathematics Education. This package along science kit and maths lab (with Maths lab manual) was used in nearly all 35 states and UTs of India. This continues till date.

20. Regional Workshops on Quality Education: With DEE, NCERT conducted series of regional workshops on 'Quality Education' and 'Learning Assessment' at the 5 RIEs of NCERT. I also assisted them in their annual planning for supporting their concerned states in quality improvement.

21. National Achievement Surveys: Assisted Dept. of Educational Measurement and Evaluation, NCERT in designing plan of action for a renewed National Achievement Surveys (NAS) and also strengthen learning assessment in states. With the new curriculum the approach to NAS was drastically changed with focus on ITR theory and granular analysis.

22. Video conferences on Educational Issues: Conducted more than 15 Video Conferences from IGNOU studio with the help of best of educationists for states on various educational themes such as EGR, EGM, how children learn, approach to curriculum renewal, quality education for out of school children, quality monitoring, etc.

23. Strengthening of Learning Assessment in states: Assisted Ministry in setting up Technical Cooperation Fund (TCF) with DfID support to guide NCERT, SCERTs and state pedagogic teams for strengthening learning assessment, evaluation and educational research. All their senior faculty members were sent to the best of educational universities abroad. More than 2000 researchers went for learning visits in this process in phases. They, on return, designed own plan of action for renewing educational plans and activities in these areas. The TCF initiative significantly contributed to capacity building of academic institutes in all states.

24. National journal on education: Edited national journal 'Issues in Primary Education' of the Pedagogy Section of NTSG-MHRD. Brought out a special issue of the journal on science education, titled 'Exploring Science'. Several other issues of the journal were also brought out on School Libraries, Mathematics education, Language pedagogy, Activity based Learning, Learning assessment, etc. This journal used to be circulated in all states and was very popular. However, this was discontinued after 5 years of its publication.

25. Annual Educational Plans of states and national bodies: Guided, for a decade, all states and national bodies including NCERT, IGNOU, NCTE and NIOS in their annual plan development for quality education. Also appraised all state plans for approval by Ministry of Education, Government of India for support under DPEP, SSA, Teacher Education, etc.

26. Quality Indicators in DISE and SES: Assisted in inclusion of quality indicators in the DISE (District Information System on Education) regularly and guided states regarding how to use the DISE data effectively for quality improvement.

27. Assisted the Research Section of NTSG and NCERT in conducting studies related to quality. The studies include Role of BRCs and CRCs, Effectiveness of ABL, Multi Grade Multi Level Pedagogy, Role of English in School Education, Learning Assessment, Early Childhood Development & Education, etc.

28. Familiarized all states with RTE compliant Child Friendly Schools (CFS - Unicef), Solution Exchange (Unesco), and other good practices of Development Partners and Civil Society Organizations.

29. Evaluation of Quality Initiatives: I was instrumental in facilitating evaluation of four key quality improvement initiatives in states through NCERT and TCF. They included ABL-TN, CLIP-AP, Prayas-HP and MLE-Odisha. After extensive research, four quality reports were prepared which were found to be very useful.

30. Promotion of Activity Based Learning: I conducted a 4-day national workshop on 'Multi Grade Multi Level pedagogy' for all state pedagogic teams at RIVER, Andhra Pradesh. Each state designed own plan of action after observing the MGML pedagogy at RIVER. After this more than 15 states took it ahead in different names. I played a key role in providing technical support to all these states. This included 'Chala Shiku Ya – Jalna (Maharashtra), Kunjapuri MGML pedagogy (Uttarakhand), ABL (Nagaland), MGML (Himachal Pradesh), MGML (MP), ABL (Chhattisgarh), MGML (Assam), MGML (AP), MGML (Kerala), Active schools (Maharashtra), etc. in the pattern of ABL-TN and Nali Kali – Karnataka.

31. Advancement of Educational Performance and Teacher Support System (ADEPTS): Conducted three rounds of regional workshops with a consultant in each region of the nation for all states (SCERTs, State pedagogic teams) to develop standards for ADEPTS for Ministry of Education with support of Unicef. These standards were adapted by each state as per own context and were piloted for tracking and enhancing performance of SCERTs, DIETs, BRCs and CRCs in each state. Out of the 35 states and UTs in nation more than 29 states effectively used the ADEPTS standards and indicators in 2007-08.

32. National Workshops on RTE Act and new curriculum: Conducted 5 national workshops for Ministry of Education at

Shimla, Kolkata, Hyderabad, Gujarat and Bhopal on quality education for harmonization of curriculum renewal in education after notification of RTE Act in India in 2009.

As Honorary Coordinator of Manavik for Science and Mathematics Education in tribal areas (November 1998 – December 1999)

1. Facilitated 4 Vidya Utsavs (Regional Educational Festivals) in Odisha in partnership with Unicef
2. Developed 20 books on education and activity based learning.
3. Conducted more than 60 workshops for teacher educators, teachers and children on nature study, science fun, maths fun, origami, puppetry, science writing, sky watching, science writing, etc. in different states of India.
4. Developed children's wall magazine for Odisha with NBT, India. This NBT-NCCL initiative was recorded as the longest wall magazine in Limca book of records.
5. Translated more than 30 books for NBT, Sahitya Academy, Orient Longman and BGVS
6. Supported MTB-MLE programme of OPEPA as a key resource person for material development, training and programme monitoring.

As Founder Principal, Rtapalli Vidyapeeth (August 1997 – November 1998)

1. Developed this new centre as a residential centre of excellence in science and mathematics education for 50 children from rural backgrounds in Odisha.
2. Exposed children to the best of learning resources and interaction with the best of educational experts from state and abroad.
3. Children excelled in a wide range of areas including academics, sports, music, yoga, and several co-scholastic areas.
4. The center continues as a model school for disadvantaged children in the state. Children have scored well in state board examinations (a few among the top 10 in the state)

Also as National Coordinator of Bharat Gyan Vigyan Samiti (BGVS): Literacy, Education and Science for Peace, Unity and Self-Reliance (April 1996 – August 1997)

1. Designed with team and initiated the 'Jeevan Shala' primary education programme in more than 10 states as a model for quality in Primary Education.
2. Designed with team and coordinated the 'Joy of Learning' nationwide campaign through 1000s of residential children's camps, activity corners on a wide range of topics and orientation of teacher educators and teachers for quality improvement in education.
3. Designed with team and coordinated the 'Cosmic Voyage' a nationwide campaign through 1000s of sky festivals, telescope making workshops, sky watching programmes, Hale Bopp comet watch, Eclipse watch, orientation of teacher educators and teachers, astronomy clubs, street theatres, etc.
4. Coordinated the nationwide 'Joy of Reading' campaign of BGVS through 1000s of reading clubs, community reading programmes, street theatres, and related activities in all states.
5. Developed more than 60 books on education, development and peace for the campaign which reached all states. Altogether more than 400 titles were developed at national level which were translated into various languages in the states for massive use.

As Secretary, Srujanika, Centre for Research and Innovations in education and science (August 1986 – April 1996)

1. Co-edited and illustrated Vigyan Tarang monthly journal for 9 years with focus on education, science, mathematics and development.
2. Coordinated year wide events on science, education and development in different districts and states.
3. Developed a wide range of books and training packages on education, science, mathematics and activity based learning
4. Formed science clubs in all districts of the state for weekly hands on activities on science writing, science fun, maths fun, nature study, sky watching, telescope making, origami, puppetry, science camps, singing, painting, playing, dancing, acting, editing, etc.
5. Conducted training for NGOs, teacher educators and teachers in different places
6. Facilitated learning visits of children and teachers to different states for participation in national children's camps on various science themes
7. Designed science learning packages and conducted as Master Trainer for NCSTC, Vigyan Prasar, NCERT, SCERTs, NBT, etc. state level trainers' training each year in different states for NGOs and Government departments.
8. Created a cadre of writers, trainers and science communicators in Odisha and outside.
9. Wrote in local newspapers and science journals every month.
10. Developed more than 20 educational video programmes on science and education for telecast by State Institute of Educational Technology.
11. Translated books for NBT, Sahitya Academy, etc. for children and teachers
12. Worked very closely with All India People's Science Network (AIPSN) and Bharat Gyan Vigyan Samittee (BGVS) for strengthening the people's science movement for Literacy, Education and Science for Peace, Unity and Self-Reliance in the nation.

SKILLS:

- Proficient in English, Hindi, Odia and basics in French
- Proficient in Microsoft Outlook, Microsoft Office, Microsoft Excel, Microsoft Access, Microsoft Power Point
- Possess high quality skills related to data analysis, communication, working with people, drive for results, programme designing, team management, result based management (RBM), competency based interviewing (CBI), respectful workplace facilitator (RWF), envisioning, capacity building, curriculum renewal, quality monitoring.

PUBLICATIONS:

- a. Around 20 Books in English and other Indian languages
- b. Around 50 publications for children in Odia, my mother-tongue
- c. Curricular documents for Jharkhand State (30 position papers, curriculum for pre-school education, curriculum for school education and curriculum for teacher education; Also textbooks for classes 1-2 in 5 tribal and two regional languages)
- d. Translations (more than 50) of Educational Classics into Odia, my mother-tongue
- e. Editing of 6 Journals
- f. Learning tools ... 4 Calendars and 12 series of Posters
- g. State education vision document (for 15 years), strategy plan (for 7 years) and action plan (for 3 years)
- h. Other regular papers

HONOUR & AWARD

Awards for Education, Science and Leadership

- Received State award in 1998-99 for Best Science Writing for neo-literates and children from Orissa Bigyan Academy, Bhubaneswar
- Received National Award in 2001 for best effort for Science Popularization from Indian Science Writers Association, New Delhi
- Received special award for 'Outstanding Effort for Quality Improvement in Elementary Education in different states under the Sarva Shiksha Abhiyan' in National Teachers' Meet – 2009, Thiruvananthapuram, Kerala.
- Received Dr. Sarvapalli Radhakrishnan National Award from Center for Educational Development, New Delhi on 10 December, 2017 for Innovative Practices in School Education.
- Received national award at Kalinga Literary Festival - 2018 for popularizing science and education for more than 3 decades in India
- Received appreciation letters from State Cabinet Minister-Education, Chairperson-SCPCR, Utkal Sammilani – Odisha, etc. for demonstrating high quality research and language learning through M-TALL *akhra*