# Phuntsho Dolma CURRICULUM VITAE

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Current Job: Associate Professor, Paro College of Education, Royal University

of Bhutan, Paro

#### Education

PhD in Mathematics Education with outstanding thesis outcome (Queensland University of Technology, Australia, 2016); Masters in Mathematics Education (Edith Cowan University, Western Australia, 2002); Graduate Certificate in mathematics education, University of Newcastle, Australia, 2005); Advanced Diploma in Mathematics Education (University of Leeds, United Kingdom, 1994); Bachelor of Education in Mathematics and Geography, NIE, 1989.

# **Employment History and Positions Held**

- Associate Professor, Paro College of Education, RUB (July 2016 );
- Dean of Student Affairs, Paro College of Education, RUB (September 2009 December 2013);
- Senior Lecturer in mathematics Education (women), Paro College of Education, RUB (2005 2009);
- Lecturer in Mathematics Education cum Head of Mathematics Department, Paro College of Education, RUB (1994 2004);
- Lecturer in mathematics cum Hostel Provost (Women Hostel), Paro College of Education, RUB (1990 2009).
- Lecturer in mathematics cum the Head of Mathematics Department, TTC, MoE, Paro (1999 2004);
- Lecturer cum counsellor, Paro College of Education, RUB (1990 2002);
- Mathematics teacher cum Homescience club coordinator, Mongar High Secondary School and Paro College of Education (1990 2009);
- Mathematics teacher cum School librarian, Mongar Higher Secondary School, Mongar (1990 – 1994)
- Mathematics teacher cum School Stationery Store Incharge, Damphu High School, Tsirang (1989 1990)

### **Teaching and Research Supervision**

Has written several courses and taught undergraduate and postgraduate students (both pre-service and in-service) and supervised research dissertations to completion since 2016.

- Supervisor, Masters research, Paro College of Education (2019 ).
- Undergraduate research supervisor (Bachelor of Education), Paro College of Education, RUB (2017 2018);
- Local Master Research Supervisor (Master in Mathematics Education on Bhutanese Education system, a master student from the University of Calgary, Canada, in 2007 – 2008)
- Visiting Lecturer at the Fairview International Schools Teacher Education Centre, Kuala Lumpur, Malaysia (in 2009);
- Visiting Lecturer at the Teacher Training College, Zurich, Switzerland (in 1999)
- Taught undergraduate courses such as *mathematics education*, *Effective Teaching Skills*, *Child Psychology* and research project (Bachelor of Education), *Research dissertation* (Master of Education), *Effective Teaching skills* (Post Graduate Diploma in Education). Further, she was involved in writing mathematics curriculum and hands on learning activities for Bhutanese schools and mathematics modules for colleges of education.

### **Policy and Systems Development**

- Involvement in the development of the Bhutanese mathematics curriculum ever introduced in the history of Bhutanese education system (2005 2008)
- Initiated in the establishment of the counseling unit to meet and share similar problem among the victims themselves for the welfare of the student teachers in Paro College of Education and problematic youth around;
- Initiated and established a basic functioning system for the welfare of student teachers in Paro College of Education during the tenure as the Dean of student affairs (2009 - 2013).
- Initiated and established a system of 'self sufficient' or 'stand on your fit' policy, mainly the female students in schools and colleges catering through a basic home education such as cooking, weaving, knitting, embroidery, sewing, etc., in the hostel (1990 2008).

- Heavily involved in designing, writing and editing of Bhutanese Mathematics Curriculum (2008 2011).
- Involved as taskforce member in designing, writing and editing the introduction of the concept 'Continuous Assessment' to the Bhutanese education system under Ministry of Education (1998 2002).

# **Academic Programme Development**

- Involved in the development of mathematics course modules for Masters and Bachelors programmes in Paro College of Education from 1999.
- Involved in writing several mathematics subject manuals, handbooks and Activity Folders for both school children in schools and for the Bachelor of Education programme (PCE & SCE) from 1998 to 2005.
- Involved in developing a handbook on 'Continuous Assessment' for schoolteachers and lecturers in 2000.

### **Publications**

- Dolma, P., Nutchey, D. & Walters, J. (2017). *Investigating the alignment of Bhutanese mathematics teachers' planned approaches within the context of a reformed curriculum*, in International Journal of Science and Mathematics Education (IJSME). DOI: 10.1007/s10763-016-9791-1, 2017.
- Dolma, P. (2017). Expressed versus manifested beliefs of Bhutanese elementary mathematics teachers in Rabsel (accepted for publication in May 2017), Paro College of Education, Royal University of Bhutan, Paro, Bhutan.
- Dolma, P. & Thinley, J. (2019). The impact of university students' semester end module feedback on tutors' change of teaching and learning environment in Paro College of Education (RUB), funded by CARG (College Annual Research Grant, 2019), Paro College of Education, Royal University of Bhutan (RUB).
- Dolma, P. & at al. (2017). *Evaluation of the status of the school mathematics curriculum (PP XII)*, funded by Royal Education Council (REC) Project, 2017.
- Dolma, P., at al. (2007). *Constructivist ways of teaching mathematics for the school and the student teachers*. Ministry of Education, Thimphu, Bhutan, 2007.
- Dolma, P. & Bana, J. (2004). Estimation and computation for Class VII children in MERGA 27 (Mathematics Education Research Group of Australasia Inc.), Sydney, Australia, 2004.

- Dolma, P. (2003). *Computation and estimation* in Rabsel publication, CERD, NIE, Paro, Bhutan in 2003.
- Dolma, P. (2003). Relationship between estimation skill and computational ability: Investigation carried out using students in Years 5, 7 and 9 for whole and rational numbers'. Lambert Academic Publishing AG & Co. KG, Germany.
- Dolma, P., at al., (2005). Subject Integrated Methodology in Mathematics, PITT Project, Helvatas, Switzerland.

#### **Conference Presentations/Invited Talks**

Has presented papers and spoken at national and international academic/research events.

- Dolma, P. (2019). *Is TRY THIS activity necessary prior to the introduction of any mathematical concept?*,' during the 14<sup>th</sup> Faculty Research Meet, Office of Vice Chancellor, Thimphu, 3<sup>rd</sup>-4<sup>th</sup> July 2019.
- Dolma, P. (2018). *Investigating Bhutanese mathematics teachers' beliefs and practices in the context of curriculum reform'* during the 15<sup>th</sup> CERD Seminar at Paro college of Education, 14<sup>th</sup> April 2018.
- Dolma, P. (2014). The journey of a dynamic curriculum is incomplete without a well prepared teachers" at the Higher Degree Research Conference (Exchange Insight from Education Research), 10<sup>th</sup> 11<sup>th</sup> Oct 2014, Queensland University of Technology (QUT), Australia.

#### **Institutional Affiliation**

- Member of promotion committee for the Royal University of Bhutan (2017 ...)
- Member of YouCubed in regard to 'Inspire ALL Students with Open Creative Mindset Mathematics', Stanford University, USA, 2016.
- Task Force member of Continuous Assessment Project, Ministry of Education, Bhutan (1998 2003)
- Member of Mathematics subject committee, CASPD, Ministry of Education, Bhutan (2003 2005)
- Member of National Council Teacher of Mathematics (NCTM), USA, 2000 2002.
- Cashier of National Women Association of Bhutan, Mongar Dzongkhag (1990 1994

#### **Research Grants Secured**

Developed grant applications and obtained the following grants during 2016-2019.

- Nu. 80, 000 for project titled 'Is TRY THIS activity necessary prior to the introduction of any mathematical concept?,' funded by AURG (Annual University Research Grant), RUB, 2019.
- Nu. 80, 000 for project titled 'The impact of university students' semester end module feedback on tutors' change of teaching and learning environment in Paro College of Education (RUB)', funded by CARG (College Annual Research Grant), 2019.
- Nu. 9,97,675 for project titled 'Evaluation of the status of the school mathematics curriculum (PP – XII), funded by Royal Education Council (REC) Project, 2017.

### **Professional Service**

Invited reviewer/editor

- Reviewed a Rabsel article on 'Social Media Education in Bhutan' (Vol. 19, Issue 1, 2018) for Rabsel, CERD, PCE, Paro.
- Mentor for the seven DE (Bachelor) students from Paro College of Bhutan, in 2018, Paro Bhutan.
- Reviewed a Rabsel article on 'Gender Gap in the Constituent Colleges of Royal University of Bhutan' (Vol. 18, Issue 1, 2017) for Rabsel, CERD, PCE, Paro.
- Reviewed Dzongkha Journal Article (Vol. 17, Issue 2, 2016) for Rabsel, CERD, PCE, Paro.
- Mentor for the master student (Melanie Fricot) from the University of Calgary, Canada on *The Integration of Theory and Practice during Teaching Practica: A case studies of mathematics student teachers in Bhutan*, Bhutan, 2009.

# **Professional Services (others)**

As a teacher educator, has run a number of workshops on programme development, teaching methodology, and educational instruction for schoolteachers.

 Resource person for 'Orientation on New Mathematics Curriculum (Class PP)' for the PP teachers in Trashigang MSS (7<sup>th</sup> – 18<sup>th</sup> Jan 2011), organized by the Department of Curriculum Research and Development, Ministry of Education, Paro, Bhutan.

- Resource person for 'Orientation Workshop on New Mathematics Curriculum (Class PP)' for the PP teachers in Yabi-Laptsa LSS (25<sup>th</sup> Jan 5<sup>th</sup> Feb 2011), organized by the Department of Curriculum Research and Development, Ministry of Education, Paro, Bhutan.
- Resource person for 'Curriculum Writers Workshop on Primary Mathematics Text
  Book (PP III)', in Gaylegphug (25<sup>th</sup> December 2009 to 25<sup>th</sup> January 2010)
  organized by CAPSD, Ministry of Education, Bhutan.
- Resource person for 'Workshop on Associate Teachers (AT)' at Phuntsholing Middle Secondary School, Phuntsholing (4<sup>th</sup> to 10<sup>th</sup> Jan 2008 organized by PCE, Paro.
- Resource person for 'Orientation Workshop on Subject Integrated Methodology in Mathematics (Activity Folder)' in five different Dzongkhags (Paro, Haa, Wangdue Phodrang, Trongsa & Punakha) from 4<sup>th</sup> to 20<sup>th</sup> April 2008 under STEP Project.
- Resource person for 'Writers Workshop on Curriculum Review Writers (Teaching Strategy)' in Phuntsholing MSS (23<sup>rd</sup> Dec 2007 3<sup>rd</sup> Jan 2008), organized jointly by the two Colleges of Education (Paro & Samtse).
- Resource person for 'Orientation Workshop on New Mathematics Curriculum (Classes V VIII)', in Shaba Middle Secondary School, Paro (3<sup>rd</sup> to 13<sup>th</sup> December 2007 organized by CAPSD.
- Resource person for 'Joint Writers' Workshop on Four Years B.Ed Curriculum in Mathematics' at Gedug, Chukha (15<sup>th</sup> to 24<sup>th</sup> July 2008) organized by two colleges of Education, RUB.
- Resource person for 'Writers Workshop on Mathematics Curriculum Review (Classes PP-IV)' in Rinchenling Resort, Tsan-tsam Chorten, Paro from  $23^{rd}$  to  $30^{th}$  June 2008 organized by CAPSD, MoE.
- Resource person for 'Writers' Workshop on Primary B.Ed Curriculum Review' in Phuntsholing MSS, 31<sup>st</sup> Jan – 11<sup>th</sup> Feb 2007), organized jointly by the two colleges of education (Paro & Samtse).
- Resource person for 'Writers Workshop on Subject Integrated Methodology in Mathematics (Activity Folder)' in PCE, Paro (12<sup>th</sup> to 26<sup>th</sup> August 2007), organized by STEP Project.
- Resource person in conducting 'Three (2005, 2006 & 2007) annual rounds of Mathematics Activities Day (MAD)', involving schools in Paro valley, PCE, Paro.

- Resource person for 'Workshop on Subject Integrated Methodology in Mathematics' in NIE, Paro (18<sup>th</sup> to 25<sup>th</sup> March 2006) and in NIE, Samtse (26<sup>th</sup> March to 1<sup>st</sup> April 2006) under STEP Project.
- Resource person for 'Inter school Quiz Competition in Mathematics' within the schools in Paro Valley, 2006.
- Resource person for 'Inter Class Mathematics Debate', NIE, Paro, 2005.
- Resource person for 'Inter school Quiz Competition in Mathematics' within the schools in Paro Valley, 2003.
- Resource person for 'Workshop on Management for the School Principals', NIE, Paro, Bhutan, 2002.
- Resource person for 'Workshop on Development of Handbook on Continuous Assessment for the school teachers', Thimphu, Bhutan, 1999 2000.
- Resource person for 'Workshop on Continuous Assessment', Thimphu, Western Bhutan, 1998.
- Resource person for 'Writers Workshop on Mathematics Manual for Classes (PP VI)', Punakha, Bhutan, 1997.
- Resource person for 'Workshop on Mathematics Manual for Classes (PP VI)', NIE, Samtse, Bhutan, 1994 1995.
- Resource person for 'Series of workshop on PITT Mathematics Subject Methodology, NIE, Paro, Bhutan, 1994-1999.

# **Expert Service**

Has provided knowledge based services whenever and wherever required.

- Expert service to the Royal Education Council for designing mathematics curriculum for the primary level education (PP VI), 2010.
- Expert service to the Ministry of Education for designing handbook for teachers on continuous assessment, 1999 2000.
- As a member of the panel appointed by the Royal Education Council of Bhutan, validated the resource pack on multi-grade teaching, Paro, 2017.