

Transformative Education for Gross National Happiness: A Teacher Action Research Project in Bhutan

Rosalind Cooper and Timothy Bedford

Since 2010, the small Himalayan Kingdom of Bhutan has placed a strong emphasis on Education for Gross National Happiness (GNH; Sherab, 2014). GNH is Bhutan's overarching development goal with socio-economic, cultural, environmental, and political pillars. In addition, there are nine domains such as living standards, ecological diversity and resilience, health and community vitality, and 72 indicators.¹ The holistic GNH paradigm is attributed to the fourth King of Bhutan, Jigme Singye Wangchuck, who in 1972 stated that GNH is more important than Gross National Product (GNP)² (Alkire, Ura, Wangdi, & Zangmo, 2012). In other words, happiness and well-being are more important than material wealth, whereas economic growth can result in ecological overshoot that literally costs the earth. GNH is rooted in both Buddhist values (Ura, 2009) and strong sustainability principles (Daly, 2005).

Transformative Education for GNH was a teacher action research project to implement initiatives, chosen by teachers, to support GNH in schools. Our discussions with teachers and observations at schools strongly indicated that the integration of GNH values into curriculum and school culture is a process embodied by teachers rather than imposed through educational policy rhetoric.

R. Cooper (✉)
University of Oulu, Oulu, Finland

T. Bedford
Oulun Lyseo Upper Secondary School & Faculty of Education, University of Oulu,
Oulu, Finland

The methodological approach was based on web-assisted transformative action research developed by Bedford (2009). The project was a partnership between Oulun Lyseo Upper Secondary School in Finland,³ the Royal Education Council (REC),⁴ and seven GNH Seed Schools in Paro,⁵ Bhutan, selected by the REC. The main aim of the project was to develop the capacity of seven GNH Seed Schools to develop, implement, and disseminate examples of good practice of Education for GNH. Work undertaken by the teachers in their action researches and subsequent participation in developing communities of practice beyond their own schools demonstrate this aim was achieved.

The project commenced in 2010 with the planning of the first Leadership Training Course for 25 teachers, invited by the REC, which took place in 2011, in Paro. The course was facilitated by ourselves with support from REC personnel. The key objective, determined by the REC and the authors, was for teachers to develop action research, transformative pedagogy, media literacy, and information and communication technology (ICT) skills across the curriculum to promote Education for GNH. At the end of the Leadership Training Course, each school had developed a GNH action research plan to implement supported by the REC.

In 2012, there was a second Leadership Training Course in Paro, with mostly the same schools. During the course, transformative pedagogy, media literacy, and ICT skills were explored in more depth. In addition, participants engaged in GNH documentary filmmaking to introduce to their students and developed a new one-year GNH action research plan.

In 2013, we carried out a detailed evaluation of the project with school visits and interviews with teachers and principals. This resulted in our proposal to expand teacher action research in more schools, by utilizing existing project teachers as mentors and facilitators of Transformative Education for GNH action research workshops.

While each of the teachers formulated their own action research questions, our main research question was:

What are the possibilities and limitations of web-assisted transformative action research as an approach for teachers implementing Education for GNH in Bhutan?

Implementation refers to the infusion of GNH values into school policies and practices. In answering the research question, we first discuss the methodological approach for the project based on web-assisted transformative action research. Second, we examine the theoretical framework for the GNH transformative pedagogy on which both Leadership Training Courses were based as well as the new pedagogical approach for teachers to introduce in their schools. Third, we explore the results of our project evaluation demonstrating the extent to which teachers developed the capacity through action research to promote GNH in their schools.

17.1 METHODOLOGICAL FRAMEWORK

Action research is an approach widely used to bring about school change. It is a practice involving reflection and action directed at transforming school practices and structures. The action research process has cycles consisting of planning, action, observation, and reflection phases that could involve an individual teacher or a whole school collective effort.

Types of action research can be grouped according to their different aims, interests, and perspectives. For this GNH project, critical (Carr & Kemmis, 1986, 2005), participatory (Kemmis & McTaggart, 1990, 2000), and emancipatory (McKernan, 1996; Zuber-Skerritt, 1996) action research approaches are the most relevant. Such approaches share a common goal of empowerment of individuals and groups to collaborate and establish self-critical communities of practice for personal, institutional, and societal change. Communities of practice enable systematic learning for the development of ideas, actions, their evaluation, and refinement.

Examples of action research in Bhutan have been published, though they have a more technical/practical orientation rather than critical (e.g. Dukpa, 2003; Gajmer & Maxwell, 2008; Maxwell, 2003; Namgyel, 2005). Research has pointed to similarities between key Buddhist values and basic principles of action research (Winter, 2003). Chuaprapisilip (1997) argues that Buddhist notions of insight and mindfulness can help clarify the reflection phase in the action research cycle and that the concept of dependent origination embodies the entire action research cycle. Furthermore, Hattam (2004) offers a comparison of critical theory with socially engaged Buddhism, which he argues are both concerned with awakening and liberating society.

The Transformative Education for GNH project plan fitted into spiraling action research cycles with four phases—Planning, Action, Observation, and Reflection:

- Phase 1: Planning—developing the Leadership Training Course and SUSNET (web-based learning environment).
- Phase 2: Action—Leadership Training Course followed by implementation of teachers' GNH action research plans.
- Phase 3: Observation—evaluation of actions in schools (reports uploaded into SUSNET).
- Phase 4: Reflection—on Phases 1, 2, and 3, followed by the next cycle beginning with planning the second Leadership Training Course.

The web-based learning environment SUSNET is an online Community of Practice—a network to support the teachers in implementing their action research plans for GNH. SUSNET provides:

- mail and chat communication for project members;
- a workspace to share teaching materials and project resources;
- individual workspaces for schools to document their action research; and
- the possibility for shared inter-school GNH projects.

There were two main cycles of action research. The first cycle began in October 2010 with the planning of the first Leadership Training Course held in May 2011. This was followed by the implementation of the teachers' GNH action research plans and our evaluation and reflection on the outcomes. The second cycle began in March 2012 with the planning of the second Leadership Training Course held in May 2012. Following this, teachers continued their action research for an additional year, after which we carried out, in May 2013, a further evaluation including school visits. This article focuses on the project activities until May 2013, the planned end point for the project.

However, since then, a third cycle has commenced with teachers continuing their action research and some becoming mentors and facilitators for creating new communities of web-assisted transformative action research practitioners in other schools in Bhutan. This widening of participation is an important principle of action research (McTaggart, 1997). In our project, participation started with the training team and Bhutanese coordinators, then the course participants, and then widened to include the school colleagues of course participants, members of their local communities, the wider public, and then international engagement through the partnership with Oulun Lyseo Upper Secondary School in Finland.

In addition to our role of developing the Leadership Training Courses, SUSNET, and project evaluation, two Bhutanese coordinators were responsible for (1) giving training course input, (2) recruiting course participants, (3) mentoring teachers implementing GNH action research plans, (4) facilitating teacher progress meetings, (5) compiling and evaluating reports of the teachers' Education for GNH implementation, and (6) identifying further capacity building needs.

To provide an enabling learning environment, a GNH transformative pedagogy was developed as a framework for the Leadership Training Courses.

17.2 THE THEORETICAL FRAMEWORK FOR A GNH TRANSFORMATIVE PEDAGOGY

The Leadership Training Courses were designed to create the conditions to empower teachers to promote GNH in their schools. The quality of this empowerment is about teachers having more drive, ability, and possibility to take action in their school.⁶ Empowered teachers, who possess an ability to understand the processes and structures that are barriers to achieving GNH, Bedford (2009) calls transformative teachers.

Transformative pedagogy as constructed by Bedford (2009) guided the teaching and learning processes of the Leadership Training Courses, which aimed to impact the pedagogical practices of teachers after they returned to their schools.

The theoretical framework for GNH transformative pedagogy consists of three parts: GNH values and principles, critical pedagogy theories, and Transformative Education for GNH.

Ethics is central to transformative pedagogy, and the values and principles articulated by Ura (2009) for GNH value education provide an ethical foundation and a template for adapting the multi-faceted values and principles of GNH to school situations.

The starting point to construct a GNH transformative pedagogy was critical pedagogical theories. A variety of names have been given to these pedagogies including liberatory/liberation pedagogy (Freire, 1970, 1973; Freire & Shor, 1987), engaged pedagogy (hooks, 1994), border pedagogy (Giroux, 1991), and empowering education (Shor, 1992). These pedagogies all focus on empowerment, critical awareness, and action to transform society. The pedagogical principles guiding facilitation of the Leadership Training Course, modified to take into account the different context of the Transformative Education for GNH project, are based on the work of Bedford (2009). The resulting GNH transformative pedagogy is characterized by the seven principles described briefly below.

- Ethical Principle: Shared ethical principles bind together school communities and guide educational transformation for GNH.
- Conscientizing Principle: Conscientization is praxis involving the development of critical understanding as a basis for action to transform schools and society.
- Activist Principle: The activist principle concerns the channeling of critical understanding into critical action to transform schools and society.
- Situated Principle: The situated principle refers to learning that is important and relevant to the life experiences of course participants.
- Diversity-affirming Principle: This principle is concerned with the importance of valuing diversity in schools and society.
- Researching Principle: In order to transform schools, there is a need to connect the theory and practice of GNH.
- Participatory Principle: The participatory principle is about teaching and learning that is experiential, dialogical, democratic, and inquiry-based.

With the methodological approach and pedagogical framework for the Leadership Training Course in place, the next step was to plan and deliver the first course in May 2011.

17.3 DEVELOPING COMMUNITIES OF ACTION RESEARCH PRACTITIONERS/TRANSFORMATIVE TEACHERS

This section explains how we planned and facilitated two Transformative Education for GNH Leadership Training Courses, discusses the implementation of the Bhutanese teachers' GNH action research plans, and describes how actions in schools were observed and evaluated. Together, these actions served to create a community of action research practitioners.

17.3.1 *The First Transformative Education for GNH Leadership Training Course*

The local REC coordinators invited teachers from seven GNH Seed Schools to participate in the project. GNH Seed Schools are publically funded K-12 schools given a greater degree of autonomy than regular schools and chosen by the REC to be developed as models piloting and leading educational reform in Bhutan (Royal Education Council, 2011).

Three teachers from each school were invited to participate in the first Leadership Training Course. Planning the course included writing course materials and uploading them with additional resources to SUSNET. A pre-course questionnaire established participants' prior knowledge of the themes identified for the initial capacity building (GNH, media literacy, transformative pedagogy, and action research) and the availability and use of ICT in their schools.

We produced informative but not prescriptive training materials that could be adapted by participants for facilitating future Leadership Training Courses. Each teacher received a folder with a set of printed course materials covering the seven sections comprising ten workshops, as shown in Table 17.1.

We focus here on some of the capacity building activities directly leading to the teachers writing their GNH action research plans.

Participants worked in three mixed school groups on a visioning exercise to identify their ideas of an ideal GNH school. They recorded ideas on a flip chart to present to other participants and hang on the wall. The next day participants worked in their own school groups to identify where their school was performing well in terms of GNH and the areas where the school faced problems and challenges. Each group produced a flip chart with the positive aspects and reported to the entire group before hanging the poster on the wall. Two further flip charts were produced in each group, one to identify challenges the school could address and the other listing challenges the school could not address. Again, these were presented and hung on the wall.

Table 17.1 First Leadership Training Course program

Day 1	Day 2	Day 3	Day 4
1530–1930	1530–1930	1530–1930	0900–1500
Workshop 1.1	Workshop 2.2	Workshop 4.1	Workshop 6.1
Introductions	Education for GNH: Current Situation	Transformative Pedagogy	SUSNET
Workshop 2.1	Workshop 3.1	Workshop 2.3	Workshop 5.2
Education for GNH: The Vision	Media Literacy	School Actions for GNH	Action Planning & Presentations
		Workshop 5.1	Workshop 7.1
		Action Research for GNH	Evaluation & Closure

In their school groups, participants identified and prioritized potentially achievable actions to promote GNH in their schools and using guiding questions began to write a GNH action research plan. Participants were introduced to planning, action, evaluation, and reflection phases of action research cycles, and discussed methods and tools for accomplishing each phase. The guiding questions enabled participants to reflect on the practicalities of what would become their action research, such as stating who would undertake specific actions within estimated timeframes, identifying barriers to beginning and implementing the GNH action research plan and how they could be overcome, and deciding how actions would be monitored and evaluated. Each school group presented their GNH action research plan. Questions and comments from other participants provided valuable reflections for plan revisions.

During the SUSNET workshop, participants learned how to access and upload documents, and, after the course, their revised GNH action research plans were uploaded. At the end of the course, participants from each school had developed a GNH action research plan with concrete ideas they could use to not only impact on their own teaching but also impact the whole school to promote Education for GNH. Feedback collected from participants indicated that many felt confident to implement their GNH action research plans. As one participant commented:

People always talked about research to be done by teachers but no one knew what research actually means or the procedures. Now I'm confident to carry on with action research after attending the workshop.

17.3.2 Implementation of Teachers' GNH Action Research Plans

To inform about the GNH project and seek to gain whole school support for the action research, the teachers presented their action research plans in their own schools to some colleagues, principals, and school management board members. In some schools, colleagues were asked to be part of the research; in other schools, specific teachers were asked if they would like to participate.

After discussing the GNH action research plans with colleagues, adjustments were made, mostly to define the focus and state who would be involved in the actions. Action research projects included creating a recreational area, providing clean and safe water, increasing parental involvement, fencing off an area to plant trees, and using formative assessment.

The teachers began to carry out their GNH action research plans supported by the local coordinators. We maintained regular email contact with the local coordinators and occasionally directly with the teachers.

17.3.3 Observation and Evaluation of Teacher Actions in Schools

During the first action research cycle, our observations and evaluations of the teachers' action research projects were based on email correspondence with

the local coordinators and teachers, reports from the local coordinators, and teachers' action research reports. We, Cooper and Bedford, met at least twice a month to discuss and respond to current issues and record our ideas for the second course. A local coordinator visited the schools four months after the course to follow action research progress and discuss any difficulties in carrying out the GNH action research plans or using SUSNET. We received a progress summary from the coordinator indicating GNH action research plans were being implemented in all of the schools. The main challenge teachers reported at this stage was connecting to the Internet.

Six months after the course, participants uploaded their GNH action research reports to SUSNET and attended a one-day meeting with the local coordinators to present their first projects, reflect, and develop GNH action research plans for the following six months. We joined part of the meeting via Skype from Finland and agreed that the new GNH action research plans would be ready by the second Leadership Training Course in May 2012.

Participant feedback collected during the first Leadership Training Course, evaluations by the local coordinators, our evaluations and reflections, the teachers' first cycle action research reports, second cycle draft action plans, and project correspondence provided the basis for developing the second Leadership Training Course.

17.3.4 The Second Transformative Education for GNH Leadership Training Course

We planned the program to revise and expand on specific themes our evaluations and reflections on the teachers' action research in their schools had flagged. These were, support in writing a good overarching question and sub-questions to guide the research and guidance to ensure actions were systematically followed through and evaluated. To address these points, we timetabled an Action Research Clinic, with Bedford, for each school group to discuss first cycle reports, second cycle GNH action research plans, and their own specific successes and challenges. Parallel SUSNET Clinics were held by an REC technical support official to review and further develop the use of SUSNET functions. Participants at neither clinic worked in their school groups making Education for GNH films with Cooper.

Participants presented their second cycle draft GNH action research plans to Bedford during the Action Research Clinics, further developed the plans and presented them to the whole group. Again, feedback from all present was welcomed and useful for further refinements.

By the end of the second Leadership Training Course, the teachers had shared key points from their action research reports, revised and presented their second GNH action research plans, and practiced using functions of the web-based learning environment, SUSNET. In addition, each school group made and showed a short film depicting how GNH values are infused in daily school life. The next steps were for the teachers to upload their revised GNH

action research plans to SUSNET, implement the plans in their schools, and write their second GNH action research reports.

17.3.5 Implementation of the Teachers' Second GNH Action Research Plans

Some school groups continued the same theme during their second cycle action research and others pursued new topics. Whereas most themes in the first cycle were related to environmental issues, developing teaching practices were the main themes in the second cycle.

The local coordinators continued to provide local support for the teachers during implementation of the second action plan.

17.3.6 Observation and Evaluation of Actions in Schools

If we had been dependent on only written communications, we would not have appreciated the depth of the work done and successes achieved in all of the participating schools. Neither would we have gained such a meaningful insight into the challenges faced during the action research phases in both cycles.

As part of the project evaluation and dissemination of the outcomes, we spent two weeks in Paro in May/June 2013, visiting participating schools and interviewing the teachers about their action research. We also discussed the project and project outcomes with the local coordinators.

Before our arrival, the local coordinators agreed to a list of open questions we would ask the teachers during our interviews and granted permission for us to use data for our research purposes. We visited the six schools that had participated in both Leadership Training Courses with a local coordinator and carried out one hour, semi-structured open question interviews with each group of action researcher teachers. We also discussed the action research and Education for GNH with most school principals, toured the schools, and observed some lessons.

The interviews provided another opportunity for the teachers to reflect on school practices and their action research and identify further areas for improvement. Some teachers commented that the action research cycles provided a clear and systematic approach for bringing about changes in their schools and had been the starting point for teachers being responsible for educational developments, rather than waiting for external sources to implement change. As one teacher commented: "We were looking for change and we didn't know where to start, so that was I think the course itself showed us the first step of what to do."

Interviews with the teachers indicated most felt ownership of their action research, although some initially played down their contribution to the research they conducted and the transformations that took place in their schools. Many teachers said they liked action research as a tool for professional development

and educational change and could implement action research into their daily practices. We heard about and observed changes toward infusing GNH values in each of the schools, and one teacher commented:

What we have fostered are GNH values because now everybody knows ... to maintain this waste management. So now the children even, whenever they see wrappers and plastics around what they are trying to do is they are picking that up, inserting soil in it, and then they are making fencing out of all this. This is something very good and this we didn't encourage, it came from them.

A few teachers mentioned changes made prior to the Leadership Training Courses; however, the cyclical action research process enabled teacher understanding of what interventions had been successful and why they had been successful or not. The capacity for teachers to implement Education for GNH in their schools increased through acquiring tools to transform teaching methods and to share new teaching practices with others.

Their research demonstrated that putting teachers at the center of school change is empowering, motivating, and an effective method for enabling school change. The teachers chose what changes to make, including building a playground, providing safe water, clearing and reducing waste materials in schools and local communities, introducing formative assessment, applying interventions to reinforce good school citizenship, and increasing student-centered learning activities. To measure the effectiveness of changes, teachers monitored usage of new resources and used questionnaires, classroom observations, written and verbal feedback from students and colleagues, interviews, comparisons of pre- and post-intervention assessments, and reflective diaries.

The web-assisted transformative action research approach created cultures of reflective practices facilitating on-going school change, which strongly indicated developments would continue when the three-year Transformative Education for GNH: A Teacher Action Research Project ended. It was common for the teachers to express their willingness and enthusiasm to share their ideas like this action research teacher:

I really feel that if we can share our ideas to other schools in the country, it would help them to transform for the better. Indeed, I am enthusiastic to work on a few more research to promote Transformative Education for GNH projects.

17.4 DISCUSSION AND CONCLUSIONS

Our work demonstrated the possibilities and limitations of web-assisted transformative action research as a tool for teachers implementing Education for GNH in Bhutan. The Leadership Training Courses supported action research planning, the REC supported implementation, and SUSNET provided an initial platform for dissemination. The research fostered a culture of teacher reflective practice as an on-going process for short- and long-term school change.

17.4.1 *Key Factors in Success*

Our project evaluations identified a number of factors supporting development of the capacity of the teachers to plan, implement, and disseminate examples of good practice of Education for GNH.

Inviting a small group of teachers from each school to attend the courses and carry out the action research facilitated peer support and strong motivation. Trust between teachers was evident during the courses and the interviews. Support from the school principal was deemed valuable by the teachers. We found some principals were very aware and supportive, and others were pleased their teachers were taking part but knew little about their achievements.

The training courses were identified as a catalyst for project implementation, and the teachers appreciated that the REC provided the possibility for the courses to take place, and they had time allocated to attend the courses. Our analysis of the action research reports, and evaluation interviews and correspondence with the teachers highlighted a number of key themes, including:

1. Action research was new to most of the participants, but by the conclusion of the project, teachers felt competent to both carry out and report their research.
2. The project motivated some teachers to undertake further studies.
3. The teachers learned that they can make a difference in school, felt they had acquired the tools to be change agents, and gained a stronger sense of belief in their capabilities.
4. The teachers learned the value of reflective practice and strategies for implementing school change.
5. The teachers learned to involve their students more in their activities and the change process, which strengthened the practice of GNH values.
6. Teachers learned to teach other teachers how to do action research.

Models of action research, based on the conditions and practices that fostered the project action researches, could be developed as tools for implementation of Transformative Education for GNH.

Face-to-face contact with the teachers was essential. Meeting the teachers for the second time, during the second Leadership Training Course, provided an opportunity to hear about and discuss the teachers' first cycle action research in detail and find out what the possibilities and challenges had been and, importantly, how the teachers felt about conducting action research in their schools. Meeting the teachers for the third time during the project evaluation visit gave even more insight into the action research projects.

17.4.2 *Challenges Faced*

There was limited time to incorporate action research activities, especially in the beginning when some of the teachers perceived the research as something extra to the school day. Many teachers continued with action research activities

during their free time, and, in some cases, work was shared with other colleagues, students, and parents.

Unavailability of school computers and poor Internet connectivity limited the use of SUSNET. It did not become the vibrant online network for teachers to exchange ideas and share resources we had hoped for. However, we felt it was important to continue developing and using SUSNET as connectivity would improve and most resources in the environment can be accessed by visitors.⁷ The teachers used social media via their mobile phones to contact project participants outside their own school.

It was difficult to finance materials required for some action research activities. Sometimes, parents or the local community provided materials; in other cases, compromises were made or ideas changed.

Teachers said they needed more access to external support for reassurance and guidance during the action research cycles. Action research was introduced to the teachers through the project, and although they had limited knowledge and experience of action research, we felt many teachers underestimated their capabilities as autonomous agents of change.

17.4.3 *Extending the Project*

Some project teachers have become leaders in developing communities of practice through facilitating action research workshops and providing support for subsequent action research projects.

Post-project recommendations, by the authors, included creating a pool of Action Research Mentors from the project teachers. The Mentors would develop a training module and give an Action Research Leadership Training Course to small groups of teachers from new schools, while sustaining action research in their own schools. The Mentors would provide support and develop a community of practice with all participating schools.

After two years of action research cycles, the Mentors and participating teachers would evaluate the conditions supporting and limiting their action researches. The participants would become new Mentors, widening the pool of Action Research Mentors, developing and facilitating an Action Research Leadership Training Course for teachers from new schools at the same time as sustaining action research in their own schools.

17.5 CONCLUDING COMMENT

The inspiring and dedicated teachers demonstrated the power of teacher action research and transformative pedagogy to provide a solid foundation for transforming Bhutan's education system to achieve the country's GNH goals. Putting teachers at the center of educational change and utilizing action research led to identifying, implementing, and evaluating changes in teaching and school practices, rather than waiting for external support or resources. Without the enthusiasm, hard work, and commitment of teachers, the action

researches would not have taken place. Much of the successes of the action researches must be attributed to the resourcefulness and creativity of the participating teachers and their determination to realize Bhutan's development goals.

NOTES

1. For more details on the calculation of GNH, see: http://www.grossnationalhappiness.com/docs/GNH/PDFs/Sabina_Alkire_method.pdf
2. GNP is Gross National Product—the total output of marketed goods and services in an economy.
3. Oulun Lyseo Upper Secondary School is an upper secondary school in Oulu, Finland: www.lyseo.edu.ouka.fi
4. Royal Education Council (REC) strives to implement educational reforms in Bhutan: <http://www.rec.org.bt>
5. For a list of the schools from Paro (Kuzhugchen school from Thimphu participated at a later stage), see <http://education4gnh.webs.com/schools>
6. For a detailed discussion of empowerment, see Bedford (2009), pp. 53–60.
7. User account: gnhvisitor, Password: gnhguest <https://optima.discendum.com/>

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