

**Training teachers in education for sustainable development (ESD)
approaches, principles and competencies: Case study in Central
Vietnam**

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I. EXECUTIVE SUMMARY

Education has essential contributions for the advancement of sustainable development, particularly in developing countries where citizens need to be empowered to change their mindsets and act in sustainability. Vietnam has experienced several milestones in mainstreaming sustainability themes nationwide since the launch of the UN Decade of Education for Sustainable Development (DESD) in 2005. Despite the establishment of organizational and institutional structures in Vietnam, most practical work in ESD to date has been carried out by NGO-led projects. Little is known about how ESD has been conducted across the educational system and how teachers are trained on ESD. This study first presents an overview of teacher education for sustainable development at the five prominent Teacher Education Institutions (TEIs) across the country. Then, a case study is presented to understand the role of different stakeholders for training teachers on ESD and to identify areas for improvement. Five research questions have been posed in the thesis as shown in Figure E.1.

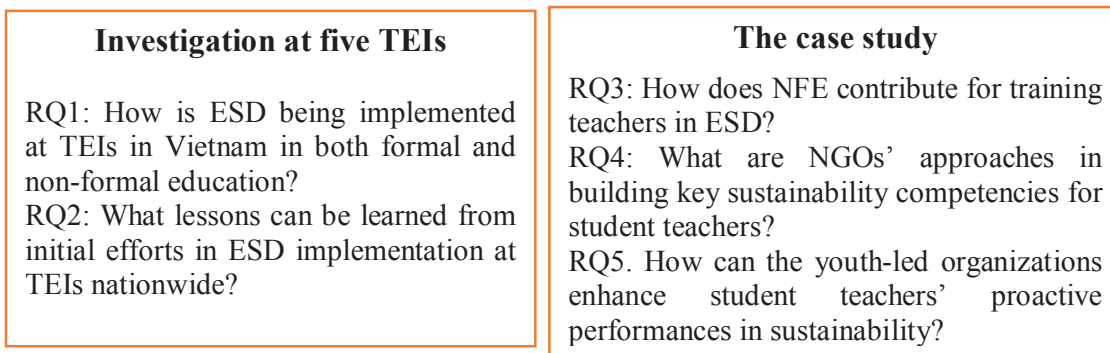


Figure E.1. Research questions

In 2014, the author conducted research during five field visits over a 14-week period to the five most prominent teacher education institutions in Vietnam. It was found that in terms of formal education, several sustainability-linked courses have been launched in teacher education programs that provide student teachers with basic understanding of sustainability themes. However, student teachers' ESD teaching capacity has not been effectively enhanced by formal education because of constraints such as the lack of practical and local knowledge related to sustainability, the prevalence of top-down pedagogy, large classes and poor facilities. Meanwhile, student interviews and focus groups showed that non-formal education (NFE) significantly contributes to improving student teachers' sustainability competencies through diverse activities by different stakeholders. Yet NFE was not linked with formal education and was not be paid relevant attention by university lecturers.

From 2015 to 2016, the author conducted six field visits over a 20-week period to focus on a case study of a teacher education institution in the central region of Vietnam, Danang Univeristy of Educaiton (DUEd). This is the first research to map the training teachers receive on ESD at a TEI, including organizations, teaching contents, applied pedagogies and the efficiency of the training. The research revealed that several stakeholders are involved in training student teachers on ESD in non-formal education at DUEd: 1. The Youth Union, 2. NGOs, 3. foreign education institutions, and 4. environmental clubs. By applying interactive training approaches and providing practical knowledge, NFE greatly contributes to building ESD teaching competencies of students.

Conversely, NFE's role has been undervalued in teacher education programs. This drawback results in three considerable issues: 1. weak community outreach, 2. lack of collaboration between formal and non-formal education for sustainable development, and 3. a lack of well-structured NFE activities.

Among those stakeholders, NGOs can be considered as the most professional ESD non-formal educators. Examining five NGO-led courses, the author found that their experiential learning helped student teachers understand sustainability-related problems. Students were also motivated by being awarded small grants to conduct their own projects, educational programs and public awareness-raising. Indeed, NGOs are leading actors for fostering key sustainability competencies: systems thinking, future thinking, values thinking and an action orientation. Moreover, they can also motivate teacher education institutions to improve their ESD teaching capacity by offering universities free data/information sources, employing pro-sustainability graduates and funding student sustainability activities at universities. Finally, NGOs can play an important role in promoting university outreach.

Despite the remarkable contributions of NGOs in training student teachers on sustainability and the potential benefits, university-NGO partnerships remain limited. The most important obstacle mentioned by the NGO and university interviewees is the lack of interest, influence and mutual understanding of the two sectors in terms of regulations, functions, operations and vision. As shown by the successful partnership between Frankfurt Zoology Society and DUEd it was found that in order to strengthen the partnership, there needs to be sustained, government-facilitated dialogue, selection of suitable NGO partners and more active participation by university members.

Another important stakeholder in student teaching training are student-led organizations such as the Youth Union (YU) and environmental clubs. At DUEd, YU has conducted four programs to raise students' awareness of environment, while the environmental clubs offer students diverse activities, including seminars, cleanup, group talking, recycle fairs, wild animal exhibition and environmental teaching. Questionnaire survey shows that though participating in environmental clubs enhance students' sustainability competencies more than with the YU, students do not frequently participate in activities organized by the environmental clubs because their efforts do not receive official recognition as they do from YU. Collaboration between YU and student-led clubs is essential to advance sustainability at university. The author proposed four steps to overcome the existing challenges of the mainstream of sustainability at the case study which are establish a hub of sustainability promotion, build sustainability leadership, construct a systematic action plan, and create a communication network.

Overall, this thesis is the first attempt to provide a comprehensive picture of teacher education for sustainable development across Vietnam. It figures out existing shortcomings of ESD implementation and proposes the appropriate recommendations to solve those shortcomings. Then, by focusing on the analysis of the case study, the research has identified the contributions of each organizations which are in many cases limited due to the weak collaboration. In particular, due to the poor community outreach, three important stakeholders that can involve in training student teachers on ESD, including schools, local communities and local authorities (e.g. Climate Change Coordination Office) were not paid attention by university. Thus, at the last chapter of the thesis, the author has proposed a framework which describes the prospective roles and feasible collaborations of various formal and non-formal educators in training student teachers for sustainability. That framework can provide a theoretical model of advancement for future implementation of ESD in teacher education.

Key words: Education for Sustainable Development, teacher education, Danang Univeristy of Education, formal education, non-formal education, competency

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IV. ACRONYMS AND ABBREVIATIONS

AASHE	The Advancement of Sustainability in Higher Education
ACCD	Action for the city
CCCO	Climate Change Coordination Office
CCE	Climate Change Education
CEREPROD	Centre for Research and Promotion of Education for Sustainable Development
DESD	Decade of Education for Sustainable Development
DRR	Disaster Risk Reduction
DRW	Danang River Watch
DUEd	Danang Univeristy of Education
ECs	Environmental Clubs
EfS	Education for Sustainability
EE	Environmental Education
ENGO	Environmental Non-governmental Organization
ENV	Education for Nature Vietnam
ESD	Education for Sustainable Development
FE	Formal Education
FGDs	Focus Group Discussions
FZS	Frankfurt Zoology Society
GAP	Global Action Program
GDP	The gross domestic product
GEC	Geo-Environment Club
GGC	Go Green Club
GS	Global Seminar
HCMUP	Ho Chi Minh University of Pedagogy
HEIs	Higher Education Institutions
HNUE	Hanoi National University of Education
HUEd	Hue University of Education
ICT	Information and Communication Technology
IGES	The Institute for Global Environmental Strategies
INGO	International Non-governmental Organization
ISCN	International Sustainable Campus Network
KIIs	Key informant interviews
MOET	Ministry of Education and Training
NFE	Non-formal Education
NGOs	Non-governmental Organizations
PACCOM	The People's Aid Coordinating Committee
QNU	Quang Nam Univeristy
RCEs	Regional Centres of Expertise
R&D	Research and Development
RQs	Research Questions
SA	SEEDs Asia
SD	Sustainable Development
SL	Sustainability Leadership
SLAs	Sustainability-linked Activities
SLT	Sustainability Literacy Test
SSIs	Semi-structured interviews

STARS	The Sustainability Tracking, Assessment & Rating System
TEIs	Teacher Education Institutions
TEPs	Teacher Education Programs
TMV	Toyota Motor Vietnam
TVET	Technical and Vocational Education and Training
UN	United Nations
UNESCO	United Nation Educational, Scientific and Cultural Organization
UNGOPs	University – NGO Partnerships
UNICEF	The United Nations Children's Fund
UNU-IAS	United Nation University – Institute of Advanced Studies
USM	Universiti Sains Malaysia
VUFO	The Vietnam Union of Friendship Organizations
VUSTA	The Vietnam Union of Science and Technological Association
VNGO&CC	The Vietnam Non-Governmental Organizations and Climate Change Network
WSSD	World Summit for Sustainable Development
YLOs	Youth-Led Organizations
YU	Youth Union

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