

**CREATING A SUSTAINABLE VISION FOR TRANSFORMING  
SCHOOLS INTO EDUCATION FOR SUSTAINABLE DEVELOPMENT  
LEARNING ORGANIZATION IN J & K**

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***“The highest education is that which does not merely give us information, but makes our life in harmony with all existence” -Rabindranath Tagore***

### **Learning Objective**

1. To ensure that Education contributes to a more sustainable world.

### **Introduction**

Sustainable development is the judicious use of Natural Resources. UN adopted SDG in 2015 as a universal call to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity. There are total of 17 SDGs. Education is one of them. ESD or SDG4 aims to ensure the completion of primary and secondary education by all boys and girls and getting opportunities for equal access to Quality, Technical and Vocational education for everyone. This goal has 10 targets to measure the inclusive and equitable quality education and promote lifelong learning opportunities. A total of 19 indicators have been identified at National level to measure and monitor the progress of these targets out of which data is available for 14 indicators. In India, significant progress had been made in universalizing primary education, with improvement in the enrolment and completion rates of girls in both primary and elementary school. The net enrolment ratio in primary education for boys and girls was at 100%, while at the national level, the youth literacy rate was 94% for males and 92% for females. The new national Education Policy and Sustainable Development Goal 4 share the goals of universal quality education and lifelong learning. The flagship government scheme, Sarva Shiksha Abhiyan, is aimed at achieving universal quality education for all Indians, and is complemented in this effort by targeted schemes on nutritional support, higher education, and capacity building of educators. The footnote

G17 is dedicated towards empowering University undergraduates on Sustainable Development Goals to become the next generation of young professionals and make SDGs a \*reality through its four pillars: Capacity Building, Leadership, Policy Advocacy, and Action. J&K has identified 16 indicators covering six targets to measure and monitor the progress of

these targets. The strategy to achieve this goal is to enhance quality and coverage of education and ensure access to improved means of learning, equal opportunities and improved learning outcomes.

### Historical Perspectives

## Millennium Development Goals (MDGs) 2000-2015



The MDGs did not consider environmental issues, eg Emissions of greenhouse gasses, Access to clean drinking water, Management of water resources.

The origin of United Nations agenda of 2030 started in 2012 UN Conference on Sustainable Development at Rio de Janeiro (Rio+20). The appeal made to formulate common goals and include these in the post-2015 development agenda with new focus on the concept of 'sustainable development'. The sustainable development is Process of Economic Development. The aim is to raising the quality of life of both Present & future generation, without threatening natural endowment & environment. According to Robert Repetto "Development strategy that manages all natural, & human resources as well as financial and fiscal assets for increasing long term wealth & wellbeing. The features are:-

1. Sustained rise in Percapita income & economic welfare
2. Rational use of natural resource
3. No reduction in ability of future generation to fulfil their needs
4. No increase in Pollution

### Strategies for Sustainable Development

1. Input efficient technology
2. Use of environment friendly sources of energy (LPG/Solar/Organic farming)
3. Integrated rural development
4. Management of waste (e waste)
5. Strategies for laws on disposal of chemical fertilisers
6. Awareness to conserve natural assets for intern generational equity (Chipko ...Appiko)
7. Public means of transport

### *The SDG main goals focus on the 5 Ps*

1. People: the wellbeing of all people
2. Planet: protection of the earth's ecosystems
3. Prosperity: continued economic & technological growth
4. Peace: securing peace
5. Partnership: improving international cooperation

These five aspects are interdependent. Therefore the SDGs demand integrated thinking as well as integrated approaches to achieving the goals.



The regressive SDGs Performance leads to Health crisis, Poverty etc. the massive Investment in terms of Fiscal & financial space to developing country to finance emergency, which can reduce the gap between commitments & actions. The access to the quality education &

vocational skill, Quality Health & wellbeing, Economic Monitoring, Prosperity with social inclusivity and quality land use are the key components of SDGs.

### ***Desired outcomes for the UN 2030 Agenda***

#### **1. Improving policy coherence**

The SDGs are multi-dimensional: require linkages across policy areas

#### **2. Supporting inclusive growth and well-being**

Leaving no-one behind

#### **3. Ensuring the planet's sustainability**

Balance between socio-economic progress and sustaining the planet's resources and ecosystems

#### **4. Promoting partnerships**

Governments, international NGOs, private sector and civil society will need to team up: financial resources, technologies

#### **5. Having accurate data to inform the process and the progress**

### ***Reflective Questions***

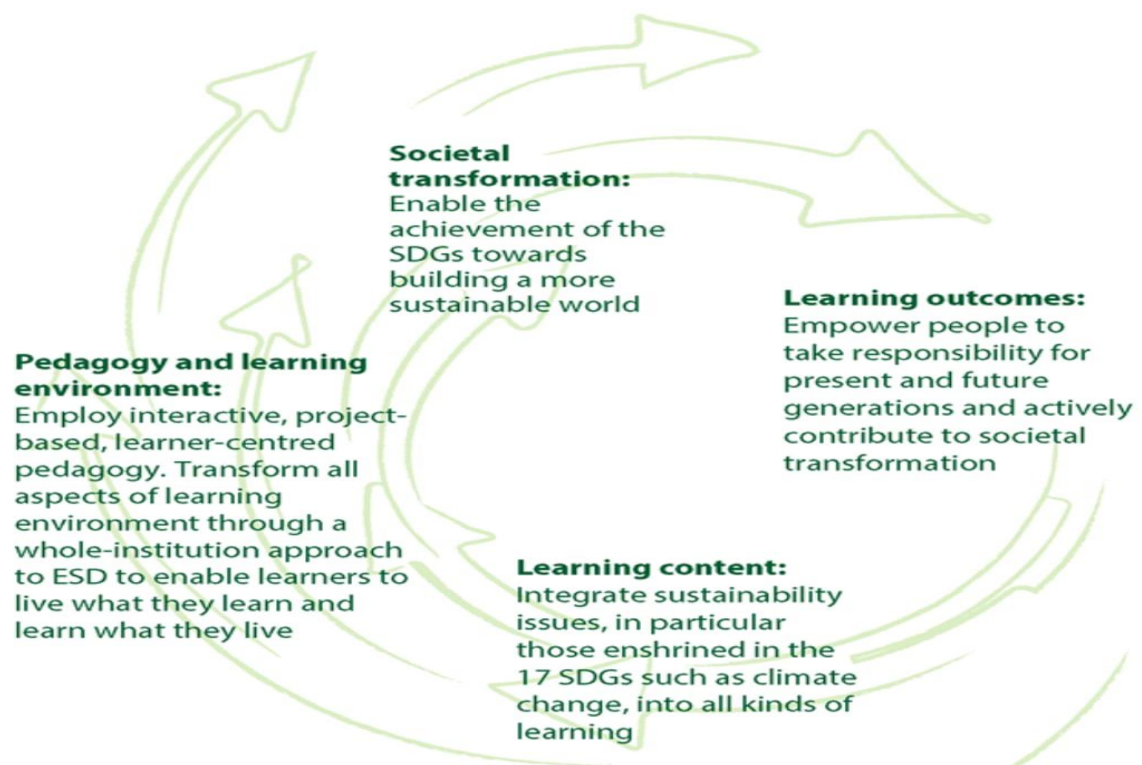
1. What are the skills that young people demand in this rapidly changing world.
2. What are the different roles and responsibilities of 21st century school leaders.
3. How to improve performance of struggling teachers in schools?
4. How do school leaders succeed in developing school as learning organization in J&K?

## Education for Sustainable Development

- The ESD is a lifelong learning process and an integral part of quality education. It enhances the cognitive, social and emotional and behavioral dimensions of learning. The ESD empowers learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society. The ESD is holistic and transformational, and encompasses learning content and outcomes, pedagogy and the learning environment itself. The ESD is recognized as a key enabler of all SDGs and achieves its purpose by transforming society. The ESD empowers people of all genders, ages, present and future generations, while respecting cultural diversity.

The ESD need to be incorporated in:-

1. LAWS, POLICIES, PROGRAMMES, ACTIVITIES, SCHEMES
2. School Education Curriculum
3. Teacher Education
4. Student Assessment



The extend of ESD in Curricula and pedagogy is:-

<b>Level</b>	<b>Objectives</b>
<b>Primary/Elementary</b>	<b>Awareness of Environment (K)</b>
<b>Secondary</b>	<b>Relevance of real life situation of environmental understanding</b>
<b>HSS/Intermediate</b>	<b>Conservation of National Resources</b>
<b>SCERT/DIET/University</b>	<b>Sustainable Development by Solving problems of Environment</b>

### **Personal Sustainability**

The personal sustainability is key in ensuring overall sustainability. Personal sustainability is underpinned by not just maintaining one's own health and wellbeing, but also by actively improving it and supporting others to do so too. There are numerous campaigns every year related to eating the right foods in the right proportions, exercising regularly and drinking sensibly to name but just a few. The challenge is to make these impactful and the positive lifestyle changes sustainable.

### **The Components of ESD , which are needed to be covered**

#### **Knowledge**

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ESD Leadership

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Applications of ESD

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ESD as a part of SLDP

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Digital Ecosystem for ESD

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## Skills

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Vision Building on ESD

Critical Thinking on ESD

Creativity

Collaboration

Communication

Transformational Action/ESD Leadership

Planning and Reviewing

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## Attitudes

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Taking Initiative on ESD

Positive Outlook on ESD

Proactive on ESD Leadership

Belief that Every School Head can learn

Belief that Every Educator can Progress on ESD Learning Graph

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## Values

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Tradition wisdom on ESD

Regional cultural values on ESD

Influence of Local value

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### **The Need for ESD Capacity Building**

Educators use the term capacity in reference to the perceived abilities, skills, and expertise of school leaders, TEACHERS, FACULTIES, AND STAFFS-most commonly when describing the “capacity” of an individual or school to execute or accomplish something specific, such as leading a school-improvement effort or teaching more effectively. The term may also encompass THE QUALITY OF ADAPTATION-THE ability of a school or educator to grow, progress, or improve.

ESD offers a vision of progress for integrating immediate and long-term objectives, local and global actions regarding social, economic and environmental issues as inseparable and interdependent components of human index. There are two guiding lights to achieve ESD integration in teacher education. The first is the action research approach (figure below) of reflect, plan, act, observe, Evaluate and re-plan/disseminate to progress ESD integration efforts in teacher education. The second is the ESD integration framework (figure) that identifies the different elements involved and the inherently interrelated nature of these elements.



## **PERSPECTIVE ON ESD**

ESD stimulates schools to be spaces for empowering children to bring out their maximum potential, to develop in them critical thinking skills and an inquiring mind. In this way they can become efficient citizens and are able to contribute meaningfully to the society. How can you bring about a learning environment where children feel safe and secure, develop critical thinking skills and inquiring minds? The answer lies in applicability of ESD and bringing in a kind of learning where children feel joy to learn.

One of the components of child-centered pedagogy is active learning that makes teaching-learning processes joyful and meaningful. Through our program, all school leader will have an in-depth understanding of active learning principles that are generic and can be employed in teaching-learning process across subject domains.

In developing perspective on ESD leadership, TPACK framework is of great use. TPACK aka Technology, Pedagogy and Content knowledge represents a full understanding of how to teach with technology. The point of TPACK is to understand how to use technology to teach concepts in a way that enhances ESD Leaders learning experiences.

## **PEDAGOGICAL APPROACH**

- The dissemination of modules on implementation of environmental core concepts with the help of context specific case studies.
- The capacity building on initiatives and Innovative practices on environmental Disaster management like herbal garden Scheme, nature camps, exposure visits to Seed stations, apiculture, sericulture, farms etc.
- The introduction of innovative concepts with theme based seminars/debates, both region Specific and international like adaptation of Common property resources, snow art mela, biodiversity weeks etc.

## **EXAMPLES OF ACTIVITIES**

- I. The capacity building programmes through Blended learning approach with Hands on Practice on adaptation of education for Sustainable development leadership program.
- II. The exposure visit to butterfly parks, herbal Gardens in selected schools, nature camps, farms etc.
- III. The development of collaborative robust monitoring and supervision mechanism for implementation of environmental education program.

## **REFLECTIVE QUESTIONS FOR HEAD TEACHERS**

- What is ESD Leadership for you?
- How can you integrate sustainability in your subject?
- Have you estimated your Carbon foot print?
- How will you bring inclusiveness in ESD?
- How will you stimulate Joyful Learning?
- How do you spend most of your day on ESD Leading?
- Which of the given roles do you think impacts student learning the most?
- Do you think efficient management of time doing different roles would help you lead your school better?
- What is your role as a ESD Leader for improving student learning and learning outcomes?

### **Activity**

**Carbon footprint is a concept used to quantify the impact of an activity, a person or a country on climate change. Understanding your carbon footprint can help limit the impact of your consumption on the environment.**

## **HANDPRINT ETHICS OF CARE**

Handprint uses ESD as an approach to build education systems that support learners of all ages to be responsible and active contributors to more sustainable society and healthy planet. This led to emergence of handprint care which is based on core idea of promoting “ethics lead action learning.”

H.P CARE pedagogy focuses on SDGs and developing ESD competencies which are needed to identify concerns, assess values within school subject disciplines. It is centered on sharing real-life stories to engage local matters of concern like biodiversity, water, lifestyle, climatic change. It identifies teachers as a key to facilitate ethics based learning.

As part of this initiative, educational resources for teacher educators have been developed to build capacity of primary and middle school teachers. These resources include a teacher educator’s handbook, thematic thumbnails, videos PPTs and other resources.

## **APPLICATION OF ESD IN CONVENTIONAL SUBJECT TEACHING**

- **By capacity building:** Ensuring Teacher Education contributes to a more sustainable world. Preparing ESD Leaders who not only have expertise in pedagogy and their subjects specializations but who are also champions and advocates of environmental sustainability.
- **Stakeholder mapping:** Having conducted a situational analysis, identified the gaps and develop a vision of the future. It is now time to expand the individuals and groups you need to work with as you are co-change agents. They are called your stakeholders. It is important that you and your immediate team are aware of who your stakeholders are. Once you identify the key stakeholders, it is now essential to prioritize who do engage first and when it will be necessary to engage each stakeholder in the integration process.
- **Action planning:** At individual level, each stakeholder is asked to identify an action plan within the scope of their respective work. For example a science teacher can identify topics in current syllabus where ESD can be integrated. It is also necessary to develop an action plan for whole department and institution. Recalling the commitment of ESD to ownership and participation, it is important to ensure that plans are developed together with the stakeholders who will be responsible for implementing these planned activities.

## ***Working with SDGs enrich subject teaching***

**Commerce and business studies** : Commerce provides opportunities for investigating the relationships between business, industry and sustainability. It can also help students learn how to manage resources carefully, to plan for the future and to apply anethical criteria in financial decision-making.

**Mathematics** : The resolution of sustainability issues is often dependent on the collection and Analysis of data and communication of results. Mathematics is an important tool for this.

**Religious education:** Education for sustainable development offers opportunities to peoplefor exploring their spiritual connections between people and nature.

**Science** : The study of science presents numerous opportunities to deal with sustainability issues. The emphasis on the development of problem solving skills and the study of relationships between science technology and environment are very important.

## ***How can Education Leaders activate ESD***

The seventeen Global goals laid out in agenda 2020 are intended to include every stakeholder on the planet from largest national body to the smallest rural Village. They are intended to involve governments, Universities, Industries and individuals alike because it will take the efforts of all actors working together in Partnership to accomplish the Urgent Global challenges facing the world today.

To be part of our sustainable education system that benefits all consider the following:-

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Educate SRPs about education-quality education-read, watch and discuss.

Support quality education

Support Inclusive and Equitable education

Waste less resources

Be mindful of the societal and ecological impacts of what you study.

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## **Stakeholders Mapping & Development on SDGs global perspectives**

- *Learning to change the world*

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ESD policy, context & competencies

SDGs & critical issues

Transforming learning & learning environment

Design assessment of significant learning in ESD

Monitoring, evaluation & scaling for impact

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### *Activity*

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To identify the extend of ESD from class 1 to 12<sup>th</sup> in from class 1 to 12<sup>th</sup> in jkbose?

Educators (DIET, SCERT & KRPs)

Concept of ESD in the teaching learning process

Mass level capacity building programs for civil society groups or local volunteers

Monitoring or assessment of ESD program (data collection & analyses)

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***Case study***

***Name of scheme : School Herbal Garden***

***Area : J&K***

***Source :Herbal Garden Work Done***

***Report, 2022***

***ESD Leadership Through HG Scheme***

ON THE INSTRUCTIONS OF THEN EDUCATION MINISTER, THE COMMISSIONER/SECRETARY TO THE GOVT. DEPTT OF EDUCATION AND THE DIRECTOR SCHOOL EDUCATION KASHMIR, IT WAS DECIDED THAT SCHOOL HERBAL GARDEN SCHEME SHALL BE LAUNCHED IN SCHOOLS OF KASHMIR IN THE FIRST PHASE IN THE YEAR 2016. THE PROJECT WAS CONCEIVED AND A PROPOSAL WAS SUBMITTED TO NATIONAL MEDICINAL PLANTS BOARD (MINISTRY OF AYUSH) FOR FINANCIAL ASSISTANCE. THE



PROJECT PROPOSAL WAS APPROVED AND SANCTIONED FOR 100 SCHOOLS/DIETS AT A COST OF 53.00 LAC. FURTHER , IT WAS DECIDED THAT THE SCHEME OF HERBAL GARDENS BE EXTENDED TO ALL THE HIGHER SECONDARY SCHOOLS OF J&K INCLUDING LADAKH. SUBSEQUENTLY A DPR WAS SUBMITTED TO COMMISSIONER/SECRETARY TO THE GOVT. DEPARTMENT OF EDUCATION FOR APPROVAL. THE SAME WAS APPROVED TO BE FUNDED BY ERSTWHILE RMSA. UNDER THIS SCHEME, 644 SCHOOL HERBAL GARDENS ARE BEING DEVELOPED.

### ***Programmes conducted during Calendar Year 2021-22***

- ***Plastic tide turners challenge (joint initiative of UNEP and WWF-India):*** A Worldwide programme was launched by UNEP in collaboration with leading organizations of various countries. On our request, WWF – India in collaboration with School Herbal Garden Scheme, agreed to launch the PTT challenge in J&K. Hundreds of volunteer teachers and students participated in the first level of the challenge online and were awarded participation certificates by the UNEP.

- ***Activity rooms established by WWF-India:*** Activity rooms have been established by WWF - India in selected schools of Jammu, kashmir and ladakh. These are special places where students can engage themselves in eco friendly games, activities, painting, drawing, quiz programmes and other interactive materials. Projectors have been installed in these activity centres.

### ***Other initiatives under school herbal garden scheme***

- ***Value addition to herbs & medicinal plant products:***

Some novel initiatives were taken by the schools in various districts. These include value addition to some herbs. Govt. GHSS kulgam made a jam from the fruits of physalis grown in their herbal garden. They also started “green studio” programme in which, the students conduct interviews/ panel discussions on various topics of environment during morning assembly.

- ***Green wall concept :***

Green wall has also been established by some schools. Discarded pet bottles and containers are being used for this purpose. Notably, Girls HSS Anantnag, HSS khanabal, Govt. HSS, GHSS kothibagh, GHSS reasi etc.





### **Biodiversity wall established**

Some schools like GHSS Verinag have converted vacant space in to biodiversity wall/ galleries. The first ever biodiversity wall was established by Dr. Rouf hamza and Mr. Manzoor javaid (nodal officers of SHG) at GHSS verinag which was formally inaugurated by Dr.Tassaduq hussain mir, the director school education kashmir in presence of CEO Anantnag and other officers. This is a novel concept and is being emulated by many other schools.

- Short videos by the students the school Students involved in EK PRITHVI/ ONEEARTH one home project are making good use of smart phones in taking photographs of medicinal plants, herbs, trees etc. For identification and knowledge enrichment. Short duration documentaries are also being made by them.
- Some schools like S. P HSS Srinagar, GHSS Anantnag, GHSS Kulgam, BHSS anantnag, and HSS nagri malpora are propagating medicinal plants and supply these to the nearby schools.
- World environment day-2021 observed world environment day observed on 05/6/2021. Five programmes attended at tourist bungalow achabal, tourist facilitation centre kokernag, online programme S.P. HSS srinagar, Govt. Degree college kargil & GHSS anantnag.

### **Biodiversity hotspots visited**

Several biodiversity hotspots were visited by the nodal officers in order to gather footage for various documentaries. At least 06 documentaries on various themes are ready to be screened. Work on several other documentaries in progress. These documentaries shall supplement the curriculum and help in explaining various environmental issues vividly.

## **Establishment of nutrition garden in schools of j&k**

WWF-India has launched a new initiative of establishing nutrition gardens in various schools of the states of India with a view to provide healthy nutrition to the students and at the same time serving the purpose of greening the campus. The programme was due to be launched in the month of march-april 2020 but, due to some technical issues and covid-19 pandemic it got delayed. We are in constant touch with the authorities of WWF-India who have agreed in principle to launch the project in j&k very soon.

### **•Nature walk-fossil talk programmes**

Recently, Mr. Manzoor javaid and Dr. Rouf hamza (nodal officers) have discovered 08 fossil sites in south kashmir. A new initiative nature walk-fossil talk was formally launched by Dr. Tassaduq hussain mir dsek at ahrabal kulgam in the month of september 2021. Since then, about 11 nature walk programmes have been conducted at various places which is gaining popularity among the students and teachers.

### **•Monitoring & evaluation of school herbal gardens by RCFC team**

In the month january, 2022, monitoring & evaluation of school herbal gardens was done by regional cum facilitation centre (RCFC), ministry of Ayush. The team was satisfied to see our herbal gardens in good condition despite covid pandemic.

**PC: STATE MEDIA CENTRE SE, DISE**



**Photo courtesy: State Media Centre School Education, DSEK**  
"Nature study and Tree Talk" jointly organized by Directorate of School Education Kashmir, Department of Floriculture and Department of Ecology, Environment and Remote Sensing. The event was attended by Secretary Floriculture Talat Parvez, DSEK Dr. G.N. Itoo, Director Floriculture Kashmir, Mathoora Masoom, Director Ecology, Environment and Remote Sensing (a renowned taxonomist) O P Sharma Vidhyarthi, other senior officers of these Departments, teachers and students in large number.



(capacity building)



**(WORKSHOP ON CAPACITY BUILDING OF EDUCATORS BY SCERT IN J&K)**  
**IMAGE©® : TAKE1 DIGITAL NETWORK**

### **ESD LEADERSHIP AS CO-CURRICULAR ACTIVITY**

At Souphanouvong University in Luang Prabang, Lao PDR, the 'Green Campus Project' was launched to raise awareness, to educate and inspire Faculty of Education staff, students and teachers, along with the broader community, about how and why they should take care of our natural environment. The project had three objectives: (1) to reduce plastic bag use on campus; (2) to educate and encourage students to recycle and compost; and (3) to develop sustainable campus gardening practices and inspire environmental leadership. The project was conducted through the participation of student volunteers who helped to make posters and stickers to remind their classmates to 'Say NO to Plastic Bags'. They also distributed re-usable bags to students living in dormitories and reminded them to bring these bags to the market. In addition, staff from both the Faculty of Agriculture and Faculty of Education engaged staff in recycling and composting workshops and helped to create composting facilities on campus. This project was designed to directly address the observed problem of littering and plastic bag consumption in Luang Prabang. However, the Faculty of Education has been clear that the broader aim is to educate future teachers about environmental stewardship.

## **REFERENCES:**

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*Core Content (includes practical exercises, brief case studies, simulation/ hypothetical exercises, reflective questions, video clippings, photographs, discussion questions etc)*

- ▶ *Recall an influential teacher who had a positive impact on you. As you form this memory, recall the setting in which the most vivid memory took place. Below are some key words that others have used to describe their influential teacher. Pick only three that most apply to the memory of your former teacher. If you know better terms that apply, write these in under “other” in the final three entries. You may want to take some time in your consideration.*

## **SOME KEY WORDS**

- *Accessible*
- *Adventuresome*
- *Approachable*
- *Authoritative*
- *Available*
- *Balanced*
- *Caring*
- *Challenging*
- *Clear*
- *Committed*
- *Communicative*
- *Competent*
- *Concerned*
- *Creative*
- *Dedicated*
- *Demanding*
- *Dignified*
- *Disciplined*
- *Eccentric*
- *Effective*
- *Knowledgeable*
- *Motivating*
- *Neat*
- *Nurturing*
- *Organized*
- *Patient*
- *Personable*
- *Prepared*
- *Professional*
- *Research- oriented*
- *Respected*
- *Respectful*

- *Rigorous*
- *Stimulating*
- *Student-oriented*
- *Understanding*

***Let's sum up***

*References (references to be for each section, the ones that are used in the running text)*

*Assessment for the Module: Either MCQ or True and False: 5 to 7*

*Additional Reading to be given for the Module and not for sections: (max.2-3)*