Life Frontier Engagement – Institutional Experiences in Advancing Service Learning
LADY DOAK COLLEGE – A GLANCE (1948 to 2016)
• Completed 67 years of dedicated service to Empower Women through Higher Education

• LDC Now, Present Strength- Students : 4367; Teaching Staff : 205 & Non-Teaching Staff : 148
Mission of the College

• To impart **holistic education** based on **Gospel values of love, justice, equality and peace in young women** from all strata of society and enable them to develop as intellectually mature, **morally upright, socially responsible and spiritually inspired women leaders** of our nation.

• The learning process and experiences are geared to **liberate, transform and empower the learner and the learned (teacher).**

• **LDC has scope & energy for continued dynamism after 37 yrs of autonomy**

• **Constantly update & bring in novel academic programmes**
INDIAN HIGHER EDUCATION SCENARIO - Education system is under constant critique

A paradigm shift is the need of the hour.....

• HE for sustainable development – to address issues of poverty reduction, equality, social responsibility, cultural values & quality of living
• Indian job market – dearth of employable workforce & scarcity of skilled man power
• Role of educational institutions enormous – wide gap should be bridged & education should be a change agent
• Education remains incomplete until a student is transformed from a passive recipient in classrooms into an active participant in community

LDC IS PURSUING SUCH A GOAL......
Evolution of Service-Learning Programmes... LDC’s Experience

1948  Vision of the Founder – SERVICE

1978  Evaluative & Non-evaluative Service Programmes

2001 – CBCS – NSS, YRC, EAP, LSP – Part IV


2004-2005 – Institutionalizing Service-Learning
Profile of Institutionalised Service-Learning courses - 2005

- **Model I**: Some departments identified courses in their regular curriculum - Soc, Chem, Zoo, Eng, Maths

- **Model II**: Some departments framed new courses incorporating the Service-Learning component – Economics, Zoology

- **Model III**: Some departments framed a Departmental Service-Learning Programme, where the comprehensive knowledge gained from various courses could be applied to community service - Tam, His, Com, Phy, Bot, BBA, Comp.Sc. / ITM

- **Centre for Women’s Studies**: Women and Work & Women, Nutrition & Hygiene
PROMOTION OF HEALTH & ENVIRONMENTAL AWARENESS IN RURAL AREAS — S.L PROGRAMME of ZOOLOGY DEPARTMENT – MODEL II

ACTIVITIES

• Adoption of village school
• Health awareness & eye camps organized
• Community cleaning ventures
• Door to door campaigning against use of plastic bags
• Exhibitions conducted
• Student research projects undertaken
International Service Learning Programme at Lady Doak College

• Twice a year programme in January is for a three week period and the programme in July is for a period of four weeks.
• The programme is hosted for the following institutions:
  • Chung Chi College, Hong Kong (July)
  • International Christian University, Japan (July)
  • Seoul Women’s University, Korea (July and January)
  • Lingnan University, Hong Kong (July – in exchange, our student attends their Summer SL programme)
• Understanding about the cultural diversity in India through special lectures and visits to local cultural sites.
• Understanding of the social issues in the Indian context relating to environment, gender, caste, health etc.
• Hands on work with service agencies who work with children in need of care and protection, children with special intellectual disabilities and children with hearing impairment.
A Sample of Community based interdisciplinary research projects...which paved the way for LiFE

1. Carbon Foot Printing at open air crematorium Thathaneri
2. Community Based Environment Health Initiatives, Sellur
3. Action Frame Work on Parthenium weed Control
4. GIS based Community Projects
5. Web page creation for Panchayat Union office and SHG groups
The Challenges faced in S-L as pedagogy

• Extra credit and so not included in faculty workload
• Only outside class hours had to be used. Providing escorts all the time
• Community benefits – not explicitly observed (used as Laboratory)
• Only lower order cognitive skills developed
• Community partners not involved in engagement
With all these experiences moved to the next higher level of Service Learning.........
Development of restructured curriculum for Life Frontier Engagement in all the undergraduate programs (2012 -2015)
VISION FOR LiFE — Life Frontier Engagement

• Mission – impart holistic education to develop women who are **socially sensitized leaders** by promoting academic excellence

• Continued dynamism to **update & evolve new academic programmes**

• Restructuring of UG curriculum – **Integrated Curricular Model**

• LiFE – Evolved from experiences of **outreach & Service Learning Programmes**

**SERVICE LEARNING TO LiFE**

Takes service-learning to a higher level and unites the three-pronged mission of the institution:

- Teaching
- Research
- Public service

Brings an attitudinal change- sensitization
AN INTEGRATED CURRICULAR MODEL
(Apex or triangular or hut model)

E: Core-II (6.4%) Life-Frontier
(Parogramme)

D: CORE-I (47.8%/ 56.4%)
Specialization
(Extra Credits-16)

C: Core-III (10.7%)
Inter-Disciplinary / Vocational

B: Support Courses (8.5%)

A: Foundation (18% / 26%)
(Extra Credits-4/8)

An Integrated Curricular Model
(Apex or Triangular or Hut Model)
LiFE – Community based experiential learning by action research

• Evolved as Core Major course & offered to UG students of all depts. In their V & VI semesters.

• Serves as a stepping stone for students to appreciate her academic learning through community experiences & action research

• Motivate students to go further from classroom learning to community – they become a catalyst of social change

• Creates opportunities for students & faculty to learn in partnership with community

• Reflect on experiences & suggest solutions to societal and industrial issues
Institutionalizing LiFE at LDC - the Process...

**PHASE I**  (2012-14)
- **Orientation** of all Faculty on the LiFE purpose and process
- Brain storming sessions with a **core team**
- **Capacity building of LiFE teams** in every Department on LiFE as an unique teaching learning process

**PHASE II**  (2014-15)
- **Syllabus framework created** for every department which was passed in Academic body
- **Evaluation format** devised as a continuous comprehensive Rubric based assessment

**PHASE III**  (2015-16)
- **Implementation** of the programme
PHASE I:
Capacity Building process

• Core team of Faculty brain storming sessions – every month

• Capacity building workshops

Dr. Albert Selvanayagam, Bangalore
Trainer in Teaching Methods and Evaluation of College Lecturers
Resource Person at ICRDCE, Chennai (Indian Center for Research and Development of Community Education)

Dr. Betty Cernol McCann
Executive director at the Civic Engagement, Research and Training Services (CERTS), Phillipines
WORKSHOP FOCUSED ON

• Teachers to truly experience the inner freedom of being with the students enjoying the journey in mutual learning and growth process.

• LiFE program is an excellent opportunity for the teachers to move from the stifling pressures to ‘cover’ a given syllabus, ‘setting’ question papers, ‘valuing’ the answer papers and ‘grading’ the students and all the structural requirements.

• Faculty can move from being a transactional /positional leader towards learning to function as a transformational /relational leader, where the centre is not Subject but relationship among the students and teachers.

• From teaching a prescribed ‘Content matter’ to be able discover the facts, concepts, and values (the content) which emerge from the free and generous engagement of both students and teachers in studying a social issue which truly bothers both.

• During the process the teachers and students may discover a need to use their subject principles and lab processes to gain a deeper understanding of a social issue.
WORKSHOP ON INTEGRATING ACADEMIC LEARNING WITH COMMUNITY RESEARCH PHASE II
27th & 28th January 2015

• Executive director at the Civic Engagement, Research and Training Services (CERTS), Phillipines
WORKSHOP FOCUSED ON

• What is LiFE? – combination of service learning and action research
• Essential elements of LiFE
• Teacher’s, community partner’s and student’s role in LiFE
• Assessment and evaluation strategies for LiFE
• Policies governing student safety at the study site, legal issues, costs associated with LiFE
• Understanding the importance of transforming each student to be productive caring citizens of our global society through the vibrant community based action research programme
• Devising appropriate academic strategies to chart out the course of action for implementation of LiFE at Lady Doak College
• Identifying appropriate resources and opportunities to effectively carry out LiFE which contribute to student empowerment
• Designing innovative assessment and evaluation criteria to facilitate experiential learning for students to discover real life values
PHASE II: SYLLABI FRAMED

- **Identification of a frontier area** in their subject to develop multiple competencies in the student which will develop her higher order cognitive skills.

- An Interdisciplinary **action research with a community component**

- Syllabi with learning outcomes, one common unit for all the Departments, **specified activities in the frontier area chosen**

- Students to have **guided reflection & suggest solutions to societal issues**

- Evaluation pattern with **continuous assessment, rubrics**, presentation of action research with internal & external evaluation etc.
Overall core theme for the Department:

• **Common Objectives**
  
  • To facilitate students to appreciate her academic learning through experiential learning by disciplinary and interdisciplinary community engagements thereby enhancing their civic responsibilities in society.
  
  • To empower students with appropriate academic strategies and innovative assessment and evaluation criteria to facilitate experiential learning for students to discover real life values.
  
  • To transform each student to be productive caring citizens of our global society through the vibrant, community- based action research programme.

• **Learning Outcomes & projected benefits of community partners**

• **LiFE Process:**
  
  • Section I – Common Unit
  
  • Section II – Thematic concepts
  
  • Section III – Community Engagement process
a) Service learning & Life Frontier Engagement

b) Principles- engagement, reflection, reciprocity, public dissemination.

c) Meaning of community and understanding of community dynamics.

d) Programme planning in Life Frontier Engagement - stages: Need analysis, Problem identification, Goal setting, Concept finalization, planning for stages of research, research and analysis, reflection and dissemination of results.

e) Ethical concerns in Life Frontier Engagement - Confidentiality, Conflict of interest, Informed consent.

Activity based learning methods followed - Role play, case studies, sample community visit, guest lectures & group discussions,
ACTIVITY MODULE FOR SECTION I: (15 hrs)

(i) Making students understand the concept of Service-Learning and Life Frontier Engagement based on the information in the reading material given using student centered learning activities.

(ii) Interaction with any local group in a nearby community (Example: Children, adolescents, adults within or outside college) and identifying community dynamics.

(iii) Need based analysis done on the community by framing a questionnaire for base line socio economic survey.

(iv) Asking students to prepare a programme plan based on the sub-themes and target group identified by the department.

(v) Presentation by teams by refining the ideas of students based on program planning stages.

(vi) Activity based on case studies relevant to ethical issues in community engagement.
<table>
<thead>
<tr>
<th>S. No</th>
<th>DEPARTMENT</th>
<th>FOCUS AREAS / THEMATIC CONCEPTS - SECTION II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tamil</td>
<td>Ilakiyamum nalavalvum</td>
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<tr>
<td>2</td>
<td>English</td>
<td>Functional English</td>
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<tr>
<td>3</td>
<td>History</td>
<td>Citizenship participation in local governance</td>
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<tr>
<td>4</td>
<td>Economics</td>
<td>Development issues in rural economy</td>
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<tr>
<td>5</td>
<td>Commerce (Corporate Secret)</td>
<td>Financial inclusion in rural areas</td>
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<tr>
<td>6</td>
<td>Commerce (Aided)</td>
<td>Unorganised retailing</td>
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<tr>
<td>7</td>
<td>Commerce (Banking &amp; Insu.)</td>
<td>Rural banking &amp; rural insurance</td>
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<tr>
<td>8</td>
<td>Commerce (Comp. Appl.)</td>
<td>Application of ICT tools in community</td>
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<tr>
<td>9</td>
<td>Social Sciences</td>
<td>Human well being : children, adolescents &amp; older adults-</td>
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<tr>
<td>10</td>
<td>Mathematics</td>
<td>Analysis of social issues in villages using mathematical tools</td>
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<tr>
<td>11</td>
<td>Physics</td>
<td>Noise : Measurement, impact &amp; control</td>
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<td>12</td>
<td>Biotechnology</td>
<td>Solid waste management</td>
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<tr>
<td>13</td>
<td>Chemistry</td>
<td>Water quality management</td>
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<tr>
<td>14</td>
<td>Botany</td>
<td>Plants for life</td>
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<tr>
<td>15</td>
<td>Zoology</td>
<td>Women and Health</td>
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<tr>
<td>16</td>
<td>Computer Science</td>
<td>Web based community projects</td>
</tr>
<tr>
<td>17</td>
<td>Business Administration</td>
<td>Entrepreneurship development for women entrepreneurs</td>
</tr>
</tbody>
</table>
Theoretical Concepts:-

• Female reproductive system and its functions.
• Importance of balanced diet, harmful effects of junk food and nutritional disorders (Anemia, obesity, protein energy malnutrition, anorexia nervosa, bulimia).

Classificational concepts:

• Nutritional requirements for women of different age groups (childhood, adolescent, adult) with emphasis on role of protein, iron and calcium.
• Causes, symptoms, prevention and treatment for reproductive disorders in women of different age groups.
• Menstrual problems: Adolescence – Amenorrhea, dysmenorrhea, PCOD, Pre and post menopausal women – osteoporosis
• Cancers related to reproductive system and breast cancer
• Effects of teratogens (alcohol, cigarette smoke, drugs) during pregnancy

Correlational concepts:

• If nutritional requirements are satisfied through a proper balanced diet and exercise nutritional disorders can be avoided. (Review of case studies)
• If diagnosed at an early stage and treated properly reproductive disorders can be effectively managed. (Review of case studies)
ACTIVITY MODULE FOR THEMATIC CONCEPT LEARNING IN CLASSROOM

• Chart/Album preparation on major and minor nutrients and their role in health
• Preparation of balanced diet chart for women from different age groups based on the economic status and local availability of food items.
• Collection of wrappers of packed /tinned food items in the market to identify the role of additives, preservatives and food standards.
• Collection of articles on nutritional disorders from print media and online journals.
• Collection of secondary data related to nutritional disorders from nutrition rehabilitation center and group discussion on the issues.
• Preparation of a short video or film on female reproductive system and its function.
• Guest lecture on importance of personal hygiene and reproductive disorders by gynecologists.
• Preparation of flash cards in teams on reproductive and nutritional disorders.
• Group work and presentation on case studies of various reproductive disorders.
Students will choose the study area and interact with the stake-holders to understand the community dynamics. A community with nutritional disorders or reproductive health problems will be identified by the students with the help of local media, visits to maternity hospitals, interaction with the neighbourhood and through other sources. The student will develop a research proposal and frame a questionnaire for the project work on the health status of the community collected through interaction with the community through a pilot study. Relevant data for the chosen concept will be collected from the community through survey with a questionnaire and simple diagnostic tests. Secondary data from public health centres and local hospitals will be collected. The data collected through different methods will be analyzed by adopting statistical methods. Significant points observed from the study will be shared with the community to create awareness on the nutritional disorders or reproductive health problems prevalent in the community. Suitable intervention strategies and measures will be taken to prevent and manage them. The reflections and recommendations made can be linked to relevant government organizations, NGOs and health centres. Project report will be prepared with supporting evidences (Photographs, videos, feedback, etc). ICT enabled presentation in groups in the form of powerpoint or a film.
CRITERIA IN THE LIFE RESEARCH MODEL – Charting Its Implementation

- concept finalization for project
- identification of community and rapport building with target group
- initial need assessment
- data collection
- analysis
- taking back results to target group through solutions and recommendations
- action programme for disseminating identified solutions for the target group
- reflections and evaluations
- documentation and presentation

- Common unit – 15 hours
- Department Concepts– (by beginning September) -15 hrs
- Initial visit to community and rapport building (September)
- Research Design and Data Collection – October and November
- Data Analysis – December
- Reflection and Return to community – January
- Final reflection and Documentation - February
- Final Presentation – March
Activity based student centered learning &
continuous evaluation with rubrics

EVALUATION AS A RUBRIC WITH THE
FOLLOWING COMPONENTS:

• Community participation
• Initiative
• Research (Reference points to be evolved by the Dept.)
• Involvement
• Community collaboration
• Theory internalization
• Application
• Reporting
• Journal
• Discussions
• Action plan
• Report
<table>
<thead>
<tr>
<th>S.No</th>
<th>SEMESTER</th>
<th>SECTIONS</th>
<th>UNITS</th>
<th>HOURS</th>
<th>CONTINUOUS ASSESSMENT</th>
<th>CRITERIA</th>
<th>REQUIRED MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>V</td>
<td>Section I</td>
<td>Common Unit</td>
<td>15 Hrs.</td>
<td>CA I</td>
<td>Concept teaching based on activities</td>
<td>10</td>
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<tr>
<td>2.</td>
<td>V</td>
<td>Section II</td>
<td>Thematic Concepts</td>
<td>15 Hrs.</td>
<td>CA II</td>
<td>Concept teaching based on activities</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>V &amp; VI</td>
<td>Section III</td>
<td>Community Engagement Process</td>
<td>30 + 75 = 105 Hrs.</td>
<td>CA III</td>
<td>Community Need Assessment</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td>CA IV</td>
<td>Community Engagement Process I</td>
<td>25</td>
</tr>
<tr>
<td>5.</td>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td>CA V</td>
<td>Community Engagement Process II</td>
<td>15</td>
</tr>
<tr>
<td>6.</td>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td>CA VI</td>
<td>Consolidated LFE Process</td>
<td>20</td>
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<td></td>
<td>135 Hrs.</td>
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<td>100</td>
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</table>
## Continuous Assessment – III

<table>
<thead>
<tr>
<th>Awareness about the community &amp; its dynamics</th>
<th>Identifying target group needs</th>
<th>Defining the problem</th>
<th>Topic Selection</th>
<th>Existing knowledge (Review)</th>
<th>Identifying a methodology (All skills for all criteria)</th>
<th>Initiative shown at planning stage</th>
<th>Formulation of ideas</th>
</tr>
</thead>
</table>

### Total No. of Rubrics per student
- Given Maximum: 32
- Required Maximum: 20

## Community Need Assessment

- (Selection of research area, scope document)

## Journal

- (Recording of individual observations & reflections)

## Continuous Assessment – IV

### Community Engagement Process – I

<table>
<thead>
<tr>
<th>Interim Report</th>
<th>Group Discussions</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process of collection of Data</td>
<td>Analysis of collected Data</td>
<td>Proposing solutions with potential limitations</td>
</tr>
</tbody>
</table>

### Total No. of Rubrics per student
- Given Maximum: 28
- Required Maximum: 25

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**CRITERIA FOR RUBRICS BASED CONTINUOUS ASSESSMENT - sample**
GLIMPSE INTO A FEW LiFE PROJECTS

**Zoology – Women and health**
- 7 teams – health issues in women
- Osteoporosis, polycystic ovarian disease, obesity, breast & cervical cancer, menstrual disorders, anaemia, diabetes.

**Chemistry – Water management**
- 20 teams – water quality analysis, water pollution, water conservation

**Commerce - Unorganised Retailing** – jasmine flower vendors, tender coconut vendors

**Rural banking and Insurance** – loans & microcredits

**Financial inclusion** – Government schemes

**Application of ICT tools for community development** – digital knowledge, website devpt for hospitals, NGOs
Prevalence of Osteoporosis in women above 40 years : A community based study in Lady Doak College and Sellur (Ahimsapuram), Madurai Dt., Tamilnadu.

LiFE PROJECT TEAM MEMBERS:
Divya Meena K. (13ZOO007)
Karthika Devi G. (13ZOO017)
Naga Nandhini J.M. (13ZOO026)
Nancy Priyanka Y. (13ZOO027)
Nnabuihe Queen Chituru (13ZOO033)
Sowntharya Devi V. (13ZOO045)

GUIDE: Dr. SUJATHA K.
OSTEOPOROSIS

- It is a skeletal disorder (Gk., osteo-bone, por-passage i.e. porous bone) associated with low bone density leading to weak and brittle bone.
- It causes frequent fractures in hip, wrist or spine.
- It occurs due to increased ‘Osteoclastic activity’ than ‘Osteoblastic activity’, causing resorption of bone minerals.
- It also occurs when the attained peak bone mass is low (during childhood and puberty).

[NOTE: Peak bone mass is the time at which the bones are at their strongest and would have attained its maximum growth and development by its early 20’s.]
Limitations:

- Asymptomatic disease.
- Sample size.
- Expensive diagnosis-DEXA.
- Less knowledge about the medical history.
**AIM:**

➢ To **conduct survey** to know the prevalence of osteoporosis among pre and post menopausal women above 40 years and to impart the knowledge of osteoporosis among them.

➢ To **create awareness** among women about the causes, consequences of osteoporosis and precautionary measures to be adopted to prevent the disease occurrence in future.

➢ To **educate women** on the importance of calcium in osteoporosis, exercise, nutrition, lifestyle factors as they are related to osteoporosis and prevention and its treatment.

**MOTIVATION FOR THE PROJECT:**

Osteoporosis is a major public health threat to women. Currently 50 million(out of 1.2 billion) people in India are either osteoporotic or have low bone mass(Mithal et.al.,2014) and it mainly affects the women around the menopausal age and WHO has predicted Asians to be largely affected by osteoporosis by the year 2050.

So women community should be encouraged to take care of their health (bone health) which they often neglect and suffer at later age of their lifetime.
RISK GROUP
✓ Post menopausal women

CAUSES:
➢ Changed lifestyle
➢ Increased age
➢ Decreased estrogen level
➢ Hyperparathyroidism
➢ Vitamin D deficiency
➢ Low BMI
➢ Low calcium intake in diet
➢ Lowered physical activities
➢ Increased indoor living-lower exposure to sun
**METHODOLOGY:**

Visiting an orthopedician Dr. Mohan Sai Krishna and framing the questionnaire.

Collecting the data from community inside and outside college.

Compilation and analysis of data.

Revisiting Dr. Guru Teja to get suggestions for reflection.

Creating awareness about the ‘Silent Killer’
Result and Discussions

**Sample Size (Community):**
- Age Groups:
  - 41-45: 30
  - 46-50: 15
  - 51-55: 10
  - 56-60: 5
  - 60-65: 3
  - 65+: 2

**Sample Size (College):**
- Age Groups:
  - 40-45: 4
  - 46-50: 8
  - 51-55: 12
  - 56-60: 6
  - 60-65: 2
  - 65+: 1

**Income Status (Community):**
- 48% Less than 5000
- 38% 5000-10000
- 14% More than 10000

**Income Status (College):**
- 97% Less than 5000
- 3% 5000-10000
- 0% More than 10000
The number of children.

NUMBER OF CHILDREN (COMMUNITY)

- No child: 11%
- One or two children: 35%
- More than two children: 54%

NUMBER OF CHILDREN (COLLEGE)

- No child: 16%
- One child: 68%
- Two children: 16%

The percentage of women with thyroid problem.

THYROID PROBLEM (COMMUNITY)

- No Thyroid problem: 89%
- Thyroid problem: 11%

THYROID PROBLEM (COLLEGE)

- No Thyroid problem: 77%
- Thyroid problem: 23%
The women who have surgically removed their uterus.

HYSTERECTOMY (COMMUNITY)

- 85% YES
- 15% NO

HYSTERECTOMY (COLLEGE)

- 94% YES
- 6% NO

The people who have attained menopause and who didn’t attain menopause (even though they have attained their menopausal age).

MENOPAUSAL STATUS (COMMUNITY)

- 27% NO MENOPAUSE
- 26% 40-45 YRS
- 32% 45+YRS
- 15% UTERUS REMOVED

MENOPAUSAL STATE (COLLEGE)

- 60% NO MENOPAUSE
- 28% 40-45 YRS
- 6% 45+YRS
- 6% UTERUS REMOVED
- The age difference between the first and second child.

**AGE DIFFERENCE BETWEEN 1ST AND 2ND CHILD (COMMUNITY)**

- The age difference between the second and third child.

**AGE DIFFERENCE BETWEEN 2ND AND 3RD CHILD**

- The age difference between the first and second child.

**AGE DIFFERENCE BETWEEN 1ST AND 2ND CHILD (COLLEGE)**
Most of the people are having frequent body pain especially at joints, but few are not having the pain.
The percentage of people doing exercise regularly.

EXERCISE (COMMUNITY)
- Yes: 85%
- No: 15%

EXERCISE (COLLEGE)
- Yes: 39%
- No: 61%

SUN EXPOSURE (COMMUNITY)
- Yes: 31%
- No: 69%

SUN EXPOSURE (COLLEGE)
- Yes: 29%
- No: 71%
Glimpses of action programmes Street play
IN THE COMMUNITY:

Skit And Chart Display
PAMPHLET DISTRIBUTION.
In the college
The suggestions for the next team:
- They can conduct the survey for a larger number of people.
- They can go for alternate ways to correlate osteoporosis with other health issues like obesity, rheumatoid arthritis, thyroidism and other anthropometric measures (BMI).
- They can finish analyzing earlier so that they can time to assess the effect of drugs for bone health.

The interesting questions and suggestions by the community:
- Do you take millets in your diet?
- Will our body absorb the calcium that we take after a particular age?
- You can include the nutritional values of millets in the pamphlet.
A SURVEY ON AWARENESS OF SIGNS AND SYMPTOMS OF BREAST AND CERVICAL CANCER AMONG RURAL WOMEN

BY,
J.KIRUPA KALAIVANI (13ZOO019)
K.MANGAYARKARASI (13ZOO023)
R.MIRTHULARANI (13ZOO025)
R.RAJALAKSHMI (13ZOO038)
R.RASHIKA NATCHIYAR (13ZOO040)
P.SOBIKA(13ZOO043)

PROJECT GUIDE:
Mrs. A. LOURDHUMARY
PROJECT AREA:
INTRODUCTION:

- Cancer is a disease characterized by the uncontrolled growth and division of abnormal cells which is the result of multiple genetic alterations.

- Metastasis

- World wide, breast cancer comprises 22.9% (2012) of all cancers in women.

- Cervical cancer is the number one cause of death in middle aged women and 20 % of all cancer related deaths in women occur in India.
BREAST CANCER:
RISK FACTORS:
- Early puberty
- Late menopause (above 55 years)
- Genes (BRCA 1 & BRCA 2)
- Lack of exercise
- Overweight

SYMPTOMS:

CERVICAL CANCER:
RISK FACTORS:
- Human Papilloma Virus (HPV)
- Irregular periods
- Age

SYMPTOMS:
- Vaginal bleeding between periods
- Vaginal bleeding after menopause
- Unusual discharge from the vagina
- Prolonged pelvic pain
OBJECTIVES:

- To check the level of awareness of early signs and symptoms of breast and cervical cancer among women (25-70 years).

- To conduct a medical camp to screen women for breast and cervical cancer.

- To make them understand the importance of early detection for the life threatening disease among women.
METHODOLOGY:

• Intensive Questionnaire (closed form) was prepared.

• It included social demographic conditions, questions on awareness of cancer and personal details.

• Area: Kalugarkadai near Thirupuvanam.

• Target population: Women- (25-70 years)

• Size: 120 Subjects

• Data collection method: Direct Survey.
• General Medical camp and Screening for breast and cervical cancer was conducted on 2\textsuperscript{nd} January 2016 with the help of the medical personnals and Gynaecologists Dr.Revathi Janakiram and Dr. Ankayarkani and the people were diagnosed and free medicines were given.

• **CAMP PAMPHLET.pptx**

• Video was presented on symptoms of breast cancer.

• **Analysis and compilation of data:** Representation by percentage and depicted as piecharts and bar diagrams.
MONTHLY INCOME OF THE STUDY POPULATION

Fig: 2

- 82% 1000-5000
- 12% 5000-10,000
- 3% 10,000-20,000
- 3% ABOVE 20,000
LITERACY RATE OF THE STUDY POPULATION

Fig: 3

- 1-5th GRADE: 43%
- 6-8th GRADE: 22%
- 8-12th GRADE: 14%
- COLLEGE: 19%
- NO EDUCATION: 2%
AVAILABILITY OF TOILET FACILITY IN THE COMMUNITY

Fig: 4

- 62% NO TOILET
- 34% INDIVIDUAL TOILET
- 4% COMMON TOILET
AWARENESS ON SYMPTOMS OF BREAST CANCER

Fig: 5

PERCENTAGE (%) OF INDIVIDUALS

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Change in the position of nipple</td>
<td>78%</td>
</tr>
<tr>
<td>2. Pain in the armpit</td>
<td>70%</td>
</tr>
<tr>
<td>3. Bleeding from the nipple</td>
<td>79.17%</td>
</tr>
<tr>
<td>4. Lump or thickening under your armpit</td>
<td>73.3%</td>
</tr>
<tr>
<td>5. Changes in the size of the breast or nipple</td>
<td>77.5%</td>
</tr>
</tbody>
</table>

YES | NO | DON'T KNOW
---|----|-----------------
AWARENESS ON EARLY SYMPTOM FOR BREAST CANCER

Fig: 6

- PAIN: 15%
- LUMPS: 35%
- DON'T KNOW: 50%
Fig: 7

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Don't Know (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal bleeding between periods</td>
<td>80%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Vaginal discharge - unpleasant smell</td>
<td>80.3%</td>
<td>8.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Vaginal bleeding after menopause</td>
<td>76%</td>
<td>10.8%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
| Persistent pelvic pain                       | 77.5%   | 4.17%  | 18.33%         

**PERCENTAGE (%) OF INDIVIDUALS**

**AWARENESS ON EARLY SYMPTOMS FOR CERVICAL CANCER**
BREAST FEEDING REDUCES BC CERVICAL CANCER

EARLY DETECTION FOR BC EARLY DETECTION FOR CC

DON'T KNOW CAN'T CAN

BC-BREAST CANCER CC-CERVICAL CANCER

PERCENTAGE (%) OF INDIVIDUALS

Fig:8

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Feeding Reduces BC</td>
<td>50%</td>
</tr>
<tr>
<td>Cervical Cancer Curable</td>
<td>30.8%</td>
</tr>
<tr>
<td>Early Detection for BC</td>
<td>43.3%</td>
</tr>
<tr>
<td>Early Detection for CC</td>
<td>19.1%</td>
</tr>
<tr>
<td>Early Detection for BC</td>
<td>43.3%</td>
</tr>
<tr>
<td>Early Detection for CC</td>
<td>22.5%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>26.6%</td>
</tr>
<tr>
<td>Can't</td>
<td>16.6%</td>
</tr>
<tr>
<td>Can't</td>
<td>13.3%</td>
</tr>
<tr>
<td>Early Detection for BC</td>
<td>50.8%</td>
</tr>
<tr>
<td>Early Detection for CC</td>
<td>82.5%</td>
</tr>
</tbody>
</table>

PERCENTAGE (%) OF INDIVIDUALS

Fig:8
AWARENESS ON AVAILABILITY OF VACCINE FOR CERVICAL CANCER

Fig: 9

4% KNOW

96% DON'T KNOW
RESULTS:

➢ This study showed that there was a lack of awareness on signs and symptoms of breast and cervical cancer among the study population.

➢ There were 43% illiterates and 57% literates, even among them some people does not know the signs and symptoms.

➢ 20% of the people were screened with the valid symptoms reported by the individuals.

➢ No Individuals were screened positive for breast and cervical cancer.
DURING THE MEDICAL CAMP:
- Checked for Anemic status.
- Checked for Blood Pressure.
- Checked for symptoms for breast and cervical cancer.
- Screening was conducted to 20% of the women based on their symptoms told by them through VIA VILI TEST.

OUTCOME OF THE MEDICAL CAMP:

HEALTH STATUS OF THE INDIVIDUALS ATTENDED THE MEDICAL CAMP:

<table>
<thead>
<tr>
<th>DISEASES</th>
<th>NO.OF.PEOPLE DIAGNOSED (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEMIA</td>
<td>25</td>
</tr>
<tr>
<td>BREAST SWELLING</td>
<td>3</td>
</tr>
<tr>
<td>INFECTION OF CERVIX</td>
<td>14</td>
</tr>
<tr>
<td>HIGH BLOOD PRESSURE</td>
<td>22</td>
</tr>
</tbody>
</table>
DURING MEDICAL CAMP:
FOLLOW UP ACTIVITIES:

• We prepared flyers with signs and symptoms to detect breast and cervical cancer and distributed to all the women of the community.

• PAMPHLET.pptx

• A video on self examination method for breast and a documentary on symptoms of cervical cancer on vernacular language was presented.

• The analysis of feedback showed an overwhelming response and strongly agreed to all the questions.
TO CONCLUDE:

- The study population were found with more number of illiterates and lack of awareness of signs and symptoms for breast and cervical cancer was observed.
- Based on the screening there were no individuals found with positive results.
- 100% of the people strongly agreed to all the questions present on the feedback form.
- LiFE project was a successful one for our chosen area.
RESTORATION OF GANDHIPURAM POND - A UNIFIED APPROACH

Group members
J. Flora Elizabeth(13CHE014)
K. R. Keerthana(13CHE023)
P. Vidhya(13CHE053)
Aim

- To take a initiative step to clean the Gandhipuram pond.
- To create awareness among the people who are residing in the community via analysing their water samples.
Motivation

Polluted Nile river

After restoration

Now
Methodology contd...

Community visit → survey → Problems identified

- Animal waste
- Unwanted plant growth
- Sewage water
- Garbage dumping

Meeting with one of The Welfare association’s president → Informed the councillor

Preparation of the charts and placard → Preparation of pamphlets and stickers
Response from the councilor

Councilor had taken efforts to cut the karuvelam trees around the pond
Methodology contd...

- Analyzed the questionnaire
- Analysis of water samples
  - Ramalakshmi nagar
  - S.R.N.Nagar
  - Gandhipuram nagar
  - Corporation water
  - Street Pipe water
  - Lorry mineral water
  - Bore water
  - Mineral water
  - Can mineral water
Action plans

• Pamphlets and stickers were distributed.
• Competitions were conducted and prizes were distributed to the students.
• Small exhibition was conducted with the charts done.
• Through the skit awareness was created among the people
competitions conducted

Chart exhibition
Prize distribution

Creating awareness
Action plan contd...
# RESULT
WATER SAMPLES COLLECTED FROM RAMALAKSHMI NAGAR

<table>
<thead>
<tr>
<th>S. NO</th>
<th>PARAMETERS</th>
<th>BORE WATER (mg/l)</th>
<th>CORPORATION WATER (mg/l)</th>
<th>CAN MINERAL WATER (mg/l)</th>
<th>STREET PIPE WATER (mg/l)</th>
<th>LORRY MINERAL WATER (mg/l)</th>
<th>PERMISSIBLE LIMIT (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alkainity</td>
<td>390</td>
<td>100</td>
<td>40</td>
<td>120</td>
<td>30</td>
<td>200</td>
</tr>
<tr>
<td>2.</td>
<td>TDS</td>
<td>1.491ppt</td>
<td>275.5ppm</td>
<td>66.56ppm</td>
<td>309.2ppm</td>
<td>22.35ppm</td>
<td>500ppm</td>
</tr>
<tr>
<td>3.</td>
<td>pH</td>
<td>7.34</td>
<td>7.39</td>
<td>6.02</td>
<td>7.23</td>
<td>6.34</td>
<td>6.5-8.5</td>
</tr>
<tr>
<td>4.</td>
<td>Hardness</td>
<td>440</td>
<td>150</td>
<td>60</td>
<td>150</td>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>5.</td>
<td>Ammonia</td>
<td>0.5</td>
<td>0.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>6.</td>
<td>Residual chlorine</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>7.</td>
<td>Fluoride</td>
<td>1.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>8.</td>
<td>Phosphate</td>
<td>2.0</td>
<td>0.5</td>
<td>1.0</td>
<td>0.5</td>
<td>2.0</td>
<td>0.1</td>
</tr>
<tr>
<td>9.</td>
<td>Nitrite</td>
<td>0.2</td>
<td>0.5</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>1.0</td>
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<tr>
<td>10.</td>
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<td>20</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>11.</td>
<td>Chloride</td>
<td>340</td>
<td>40</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>250</td>
</tr>
<tr>
<td>12.</td>
<td>Iron</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
</tr>
</tbody>
</table>
# RESULT

WATER SAMPLES COLLECTED FROM S.R.N. NAGAR

<table>
<thead>
<tr>
<th>S.NO</th>
<th>PARAMETERS</th>
<th>BORE WATER (mg/l)</th>
<th>CORPORATION WATER (mg/l)</th>
<th>CAN MINERAL WATER (mg/l)</th>
<th>STREETPIPE WATER (mg/l)</th>
<th>LORRY MINERAL WATER (mg/l)</th>
<th>PERMISSIBLE LIMIT (mg/l)</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alkainity</td>
<td>290</td>
<td>100</td>
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<td>90</td>
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<td>275.5ppm</td>
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<td>248.8ppm</td>
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<td>7.15</td>
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<td>7.41</td>
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<tr>
<td>4.</td>
<td>Hardness</td>
<td>390</td>
<td>150</td>
<td>60</td>
<td>140</td>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>5.</td>
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<td>6.</td>
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<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
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<td>7.</td>
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<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
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<tr>
<td>8.</td>
<td>Phosphate</td>
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<td>0.5</td>
<td>1.0</td>
<td>0.5</td>
<td>2.0</td>
<td>0.1</td>
</tr>
<tr>
<td>9.</td>
<td>Nitrite</td>
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<td>1.0</td>
<td>0.2</td>
<td>1.0</td>
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<td>Nitrate</td>
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<td>20</td>
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<td>100</td>
<td>45</td>
<td>50</td>
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<td>20</td>
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<td>20</td>
<td>250</td>
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<tr>
<td>12.</td>
<td>Iron</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
</tr>
</tbody>
</table>
RESULT
WATER SAMPLES COLLECTED FROM GANDHIPURAM NAGAR

<table>
<thead>
<tr>
<th>S. NO</th>
<th>PARAMETERS</th>
<th>BORE WATER (mg/l)</th>
<th>CORPORATION WATER (mg/l)</th>
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<th>PERMISSIBLE LIMIT (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alkainity</td>
<td>270</td>
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<td>80</td>
<td>30</td>
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<td>66.56ppm</td>
<td>224.5ppm</td>
<td>22.35ppm</td>
<td>500ppm</td>
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<td>6.86</td>
<td>7.89</td>
<td>6.02</td>
<td>7.29</td>
<td>6.84</td>
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<tr>
<td>4.</td>
<td>Hardness</td>
<td>270</td>
<td>150</td>
<td>60</td>
<td>70</td>
<td>20</td>
<td>300</td>
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<tr>
<td>5.</td>
<td>Ammonia</td>
<td>0.5</td>
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<td>0.5</td>
</tr>
<tr>
<td>6.</td>
<td>Residual chlorine</td>
<td>0.0</td>
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<td>0.1</td>
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<td>45</td>
<td>50</td>
</tr>
<tr>
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<td>240</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>250</td>
</tr>
<tr>
<td>12.</td>
<td>Iron</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
</tr>
</tbody>
</table>
Reflections

Challenges faced
Able to face different Situations

Able to apply academic part of results

Lessons learnt are applicable to our Academic studies
Reflection contd...

Skills developed

- Time management
- Communication skill
- Politeness
- Patience
- Facing challenges
LiFE CENTRE – coordinates....

• Facilitators & students guide
• Creation of discipline wise databases
• Identification of relevant service activities related to LiFE
• Linking different departments by identifying community needs and promoting interdisciplinary and applied research.
• Helping with rapport building with appropriate agencies
• Community tie-ups, working out action plan through agencies
LiFE CENTRE....

• Identify & utilize Corporate Social Responsibilities (CSRs) of industries by partnerships
• Networking with other UBCHEA member institutions
• Coordinate reflection workshops, time for discussions for faculty & students
• Organize 360 degree course evaluation
• Open house LiFE @ LDC - Best projects from each dept., presented to students, community partners, public, parents, NGOs & Govt. institutions
LADY DOAK COLLEGE— Networking with CHRIST UNIVERSITY, Bangalore
French Go on a Learning Expedition of Native Indian Cuisine in Tamil Countryside

by All Nagymani

Madurai: "**French Go on a Learning Expedition of Native Indian Cuisine in Tamil Countryside**" was the title that appeared in a recent edition of a local newspaper. The article highlighted a learning expedition by French students to experience the native cuisine of Tamil Nadu.

The students were accompanied by a local chef who guided them through the preparation of traditional Tamil dishes, from the simple to the complex. They visited local markets to learn about the ingredients and their uses.

The article also mentioned the cultural exchange that took place during the expedition, with students from both countries sharing their culinary traditions.

The experience was not just about learning how to cook, but also about understanding the rich history and culture behind the food. It was an opportunity for the students to gain a deeper appreciation for the diversity of Indian cuisine.
LiFE students Interaction with Pacific University team, USA (19th January, 2016)
REFLECTION BY STUDENTS

• Enabled them to develop interpersonal relations and team work.
• Cultivated leadership qualities, communication skills and critical thinking.
• Improved their sense of social responsibility and commitment to service.
• Satisfaction over practicing on-hand what they learnt in classrooms.
An English student’s reflection.....
It’s the time to give back

• “We make a living by what we get, but we make a life by what we give.” Says Winston Churchill. The Life Frontier Engagement program woke me up to the social issues that are prevalent in our society. It is not that we are unaware of the issues but the intensity is realized only when we get to the people who are really affected.

• This process of service learning will not stop with our LiFE project, we are determined to continue this even after that. It’s just the beginning. In the long run we will make a huge difference and our life will become all the more meaningful. We owe this awakening in us to the LiFE team.
CHALLENGES FACED

• Difficulty to change people bound by social and cultural barriers.
• Time management was difficult for students and staff.
• Not able to cater to all needs of people.
CONCLUSION

• **LiFE goes beyond traditional classrooms**
• Can promote new & dynamic areas of focus for students to understand society & its issues
• Taken up by several institutions around the world – LDC has taken a pioneering step forward in India
• As educators we need to consciously transform ourselves from mere teachers to change agents – moulding our students to herald social change and development
• **LDC aims to undertake significant projects with government & other stakeholders, transfer knowledge effectively to industry and community, integrate research efforts with community service & promote environmental sustainability**
Acknowledgement

• Heartfelt thanks are due to UBCHEA for the financial support
• Sincere thanks to our Principal, Dr. Mercy Pushpalatha and management for continuous motivation & support
• Gratitude and appreciation to all the faculty & students for their active participation in the various activities
• Sincere thanks to all the collaborating agencies and community partners