

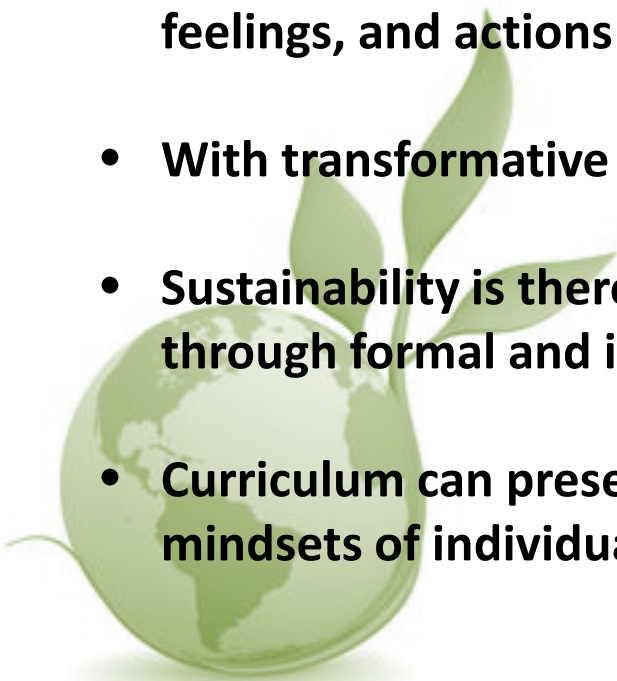
Creating Social Change: The Ultimate Goal of Education for Sustainability



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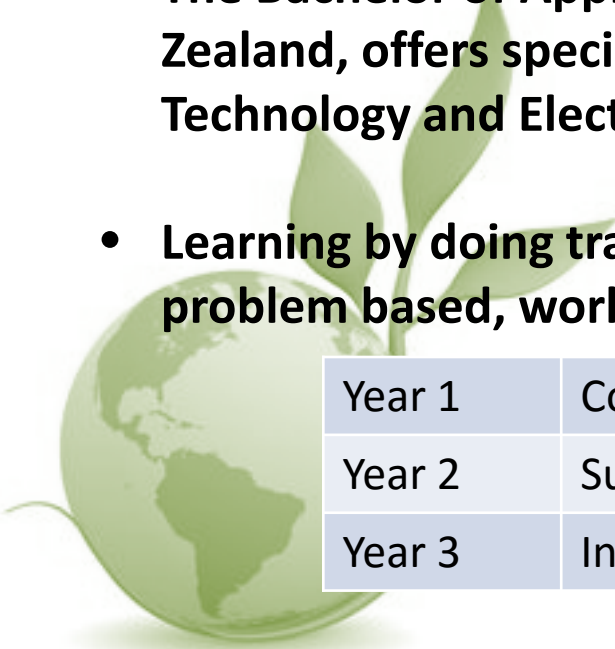
TRANSFORMATIVE LEARNING: EDUCATION AND SOCIAL CHANGE

- **Social change leads to transformation in thinking which in turn influences behaviour patterns in society.**
- **Education is the vital link that brings about social change.**
- **Transformative learning results in a shift in an individual's thoughts, feelings, and actions**
- **With transformative learning social change is inevitable.**
- **Sustainability is therefore inherently about social transformation through formal and informal learning experiences.**
- **Curriculum can present opportunities for a shift in perspectives and mindsets of individuals in society.**



TEACHING PRACTICE IN ACTION

- **Curriculum design has significant impact on transformative learning to effect social change.**
- **Content, delivery and assessments need to challenge students to reflect and assimilate changing attitudes and thought processes that inculcate sustainable living.**
- **The Bachelor of Applied Technology (BAT) programme at Unitec, New Zealand, offers specialisations in Automotive Technology, Marine Technology and Electrotechnology.**
- **Learning by doing transforms students thinking- Project based, problem based, work based learning.**

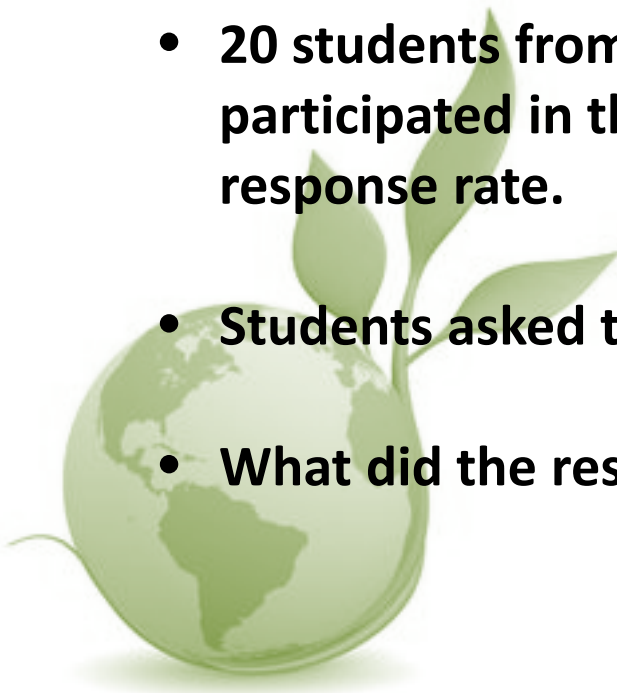


Year 1	Communication, Problem Solving & Health & Safety
Year 2	Sustainable Technologies
Year 3	Industry Project

DO PROJECTS CREATE CHANGE?

METHODOLOGY

- A semi-structured questionnaire
- 60 students from the Bachelors programme in 2013.
- 20 students from each degree level voluntarily participated in the research and generated a 100% response rate.
- Students asked to define the concept of sustainability.
- What did the results show?



Transformational Progression

Year 1

...saves lots of resources for the future.

...recycling, environmental friendly.

...being green.

Year 2

.. Using materials and resources wisely.

...Using materials and resources wisely.

...Keeping nature as it is.

...Protecting our environment.

...Maintaining our resources.

...Using environmentally friendly technology.

Year 3

...environmentally friendly procedures and practices, recycling and reusing.

...using resources wisely.

...meet the needs of present without compromising the needs of future generations.

...coexisting with environment.

...keeping environmental supply and demand in equilibrium.



DESIGNING PROJECTS THAT TRANSFORM

Scenario:



Our Finite World

Limited space
Limited resources
Growing population

Project:

What is **ONE** of the **BIGGEST PROBLEMS** facing your **INDUSTRY** today?

Investigate this problem and develop a **creative solution** in your project teams. You will present your idea to the '*Our Finite World*' panel to try and secure funding for your proposed solution. In order to achieve funding your product or service must meet the following criteria:

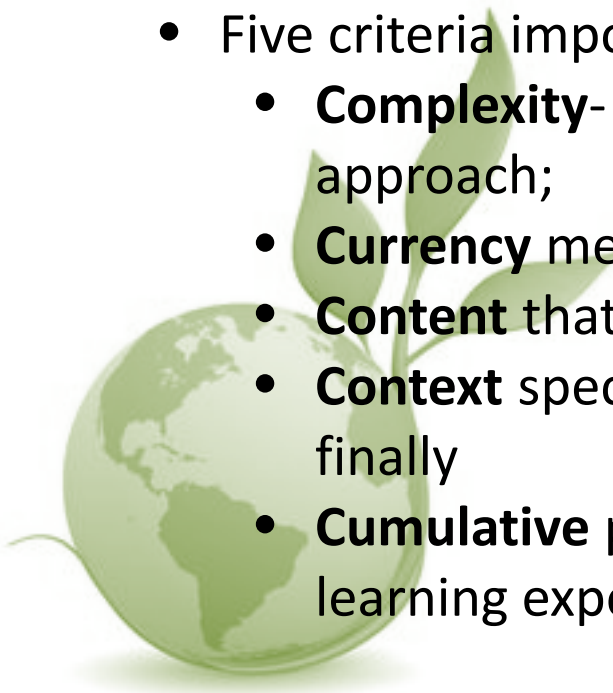
Your product or service must be:

1. **NEW / UNIQUE** – It does not exist at the moment.
2. **CREATIVE / INNOVATIVE** – It may use existing technology or systems in **DIFFERENT** ways. It can be a new application of an existing idea. It is imaginative, exciting, ground-breaking, thoughtful...
3. **ECO-FRIENDLY** – It is environmentally friendly.
4. **NZ-SPECIFIC** – It is developed within the laws and regulations specified in NZ.



DESIGNING PROJECTS THAT TRANSFORM

- A combination of project and problem based stimulates the transformative learning process.
- In project teaching, students follow their own "path of learning" and in this way they learn to distinguish which knowledge is required in order to find solutions to the problem“
- Five criteria important for project design
 - **Complexity**- focusses on a non-reductionist approach;
 - **Currency** meaning topical, unsolved projects;
 - **Content** that leads to transformational behaviour;
 - **Context** specific to the profession and discipline; finally
 - **Cumulative** presenting an on-going and coherent learning experience.



FOR A SUSTAINABLE FUTURE

- Social and ecological sensitivities through sustainability education inculcate social responsibility which in turn drives social change.
- Society is constantly changing, and education reflects, generates, and guides social change.
- Education has the power to lead society down certain paths.
- Sustainability is everyone's responsibility and education should make it a priority.

