



Examining the level of Education for Sustainable Development (ESD) in the native language learning environments of Ireland and India. Creating an educational toolkit to enhance ESD:

Introduction to Research

The concept of Education for Sustainable Development (ESD) was introduced by UNESCO (United Nations Educational, Scientific and Cultural Organisation). Through the lens of ESD, education can be seen as the “key to unlocking progress in all the global development goals”. To create a more sustainable global environment and achieve the 2030 UN Sustainable Development Goals, SDGs, education must be enhanced and utilised, particularly education of the youngest learners, who face the most extreme consequences if action is not taken immediately. The UN provides a series of educational resources designed to inform society of the SDGs.

Two Problems identified:

- Language:** As a native Irish speaker, it became rapidly apparent that these resources are not available “as Gaelige” through Irish. UN SDG tools are available in the six official UN languages presenting an inherent problem with accessibility. As many as four billion people do not have one of these languages as their first language. Over 7,000 languages are spoken in our world today. Many by small communities, often those most severely impacted by the sustainability crises.
 - Accessibility:** Despite the readiness of UN resources online, issues of accessibility mean that the information does not necessarily reach those in need of it.
- Only four years remain until the targets set by the UN for 2030 must potentially, yet again, be renewed to reflect a failure of completion.

Education for Sustainable Development

The SDGs were adopted by the UN in 2015. Created as “a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity”. Education for Sustainable Development, ESD, may be understood as the response of UNESCO to “the urgent challenges facing our planet”. It endeavours to empower people to live in a manner which supports the environment, society and economy of our world, perhaps optimistically stating that this will in turn “create a better future for everyone”.

Aim

The research undertaken in this Laidlaw Project, attempts to develop a toolkit which may be utilised by youth, taught by educators, in native language community learning environments, consequently impacting policy that is broadly accessible to all.

Concept

Education is the most valuable resource in our attempts to meet these goals. Having identified two clear absences in the resources provided by the UN and UNESCO; language and accessibility, it became apparent what direction this research should take. This project seeks to fill these voids, beginning the development of an educational toolkit, which may be utilised to inform the youngest generations of our global society, in their native language.

UNESCO is the UN agency responsible for the implementation of the “ESD 2030 Framework”. In 2021, UN member states committed to the implementation of the UNESCO ESD for 2030 Framework, through the Berlin Declaration on Education to Sustainable Development; Learn for our planet: act for sustainability

UNESCO identifies the style of learning necessary to effectively acquire knowledge of ESD, advocating for learning that is:

- Cognitive:** Improving how we think and understand information.
- Socio-emotional:** Building social skills, empathy and emotional intelligence.
- Behavioral:** Encouraging positive actions and behaviors.

Fundamentally UNESCO note that ESD must be understood as “a lifelong learning process that is an integral part of a quality education”. The concept of the project was inspired by the need to create a more sustainable global environment and make every effort to achieve the 2030 UN SDGs. Through consultations, such as discussing the topic with President Mary Robinson at her annual Climate and Nature Conference, a conclusion was reached.

Sustainable Development Goals



Fig. 1: The Sustainable Development Goals, as outlined by the UN. This agenda, adopted by all UN member states, “provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 SDGs, which are an urgent call for action by all countries”.

Hypothesis:

The hypothesis utilised was as follows; Learning through a native language enhances understanding and impacts how concepts are put into action. Thus if this is the case, the necessity of the creation of this toolkit is vital.

Approach and Results:

Approach

The research primarily examined the levels of ESD learning in Ireland, through Irish (as Gaelige). The research was undertaken as a fundamental first step, in the ultimate completion of a toolkit which may be utilised worldwide. Having previously undertaken research mapping the levels of ESD in undergraduate degree courses at Trinity College Dublin, a similar approach has been utilised in this research. Exploring how young people are taught what they are taught and how ESD can be further implemented into this system. Following examination of Irish ESD learning environments the toolkit began to be developed.

Results

- The primary research undertaken did support the proposed hypothesis. Evidence from UNESCO and others, indicates that learning through a native language significantly increases appreciation of the topic. The Sustainability Directory offers research which highlights that “Indigenous languages often contain unique knowledge about local ecosystems and sustainable practices.”
- The research went further, identifying something unexpected; the link between the biodiversity of our planet and the diversity of linguistics. In reference to New Guinea and the Amazon Basin; “These areas of high linguistic diversity sustain traditional ecological practices vital for environmental conservation. This correlation is because each language and culture carries specific practices and knowledge of environmental management to balance and regenerate local ecosystems”.
- In 2020, UNESCO found that >80% of the world’s biodiversity may be found making up indigenous territories. Therefore, it may be garnered that a significant appreciation for sustainable practice already exists in these territories, yet access to education is frequently limited.
- An opportunity for mutual exchange is created. A universally accessible toolkit will allow knowledge to be both shared and received, opening pathways to a sharing of knowledge and perspectives, particularly regarding methods of conservation.
- The toolkit in no way will infringe upon previous sustainable practice. Alternatively, education regarding the SDGs is delivered not as a replacement to Indigenous ways of knowing, but as a manner in which communities may become empowered to preserve their own knowledge and disseminate unique approaches towards achieving the goals.

New Guinea: 800 indigenous languages are spoken, alongside over 13,634 catalogued plant species. “These areas of high linguistic diversity sustain traditional ecological practices vital for environmental conservation.

Ireland: Under the ‘ESD to 2030 National Strategy’, in 2025, €859,000 in ‘ESD to 2030’ funding was provided to 390 schools nationwide, including some Gaeltacht projects. However the resources do not provide adequate if any support through Irish.

Ethiopia: in 1994, “introduced mother tongue instruction in primary schooling for the largest ethnic group in the country”. The study found that learning through a child’s native language increased the probability of being able to read an entire sentence by 40%. These examples underscore the necessity of a toolkit for native languages.

The Toolkit:

The Toolkit

The toolkit shall be created for young learners. Taking these factors into account a pictorial guide to the SDGs and ESD would prove the most effective. Project development for the toolkit commenced with study of the approach taken by Trinity College Dublin, TCD.

Within this framework key ESD competencies are identified. Notably ESD Themes are in use in place of SDG themes, in order to align with the SDG Wedding Cake vision. This vision encourages a move away from a sectoral approach to ESD, in the belief that society and economies are dependent upon a functional biosphere.

The SDG Wedding Cake was created by Rockstrom and Sukhdev in 2016 and consists of three layers; Economy, Society and Biosphere. The seventeen SDGs are interconnected and interdependent within the three tiered wedding cake, individual goals are placed in each section.

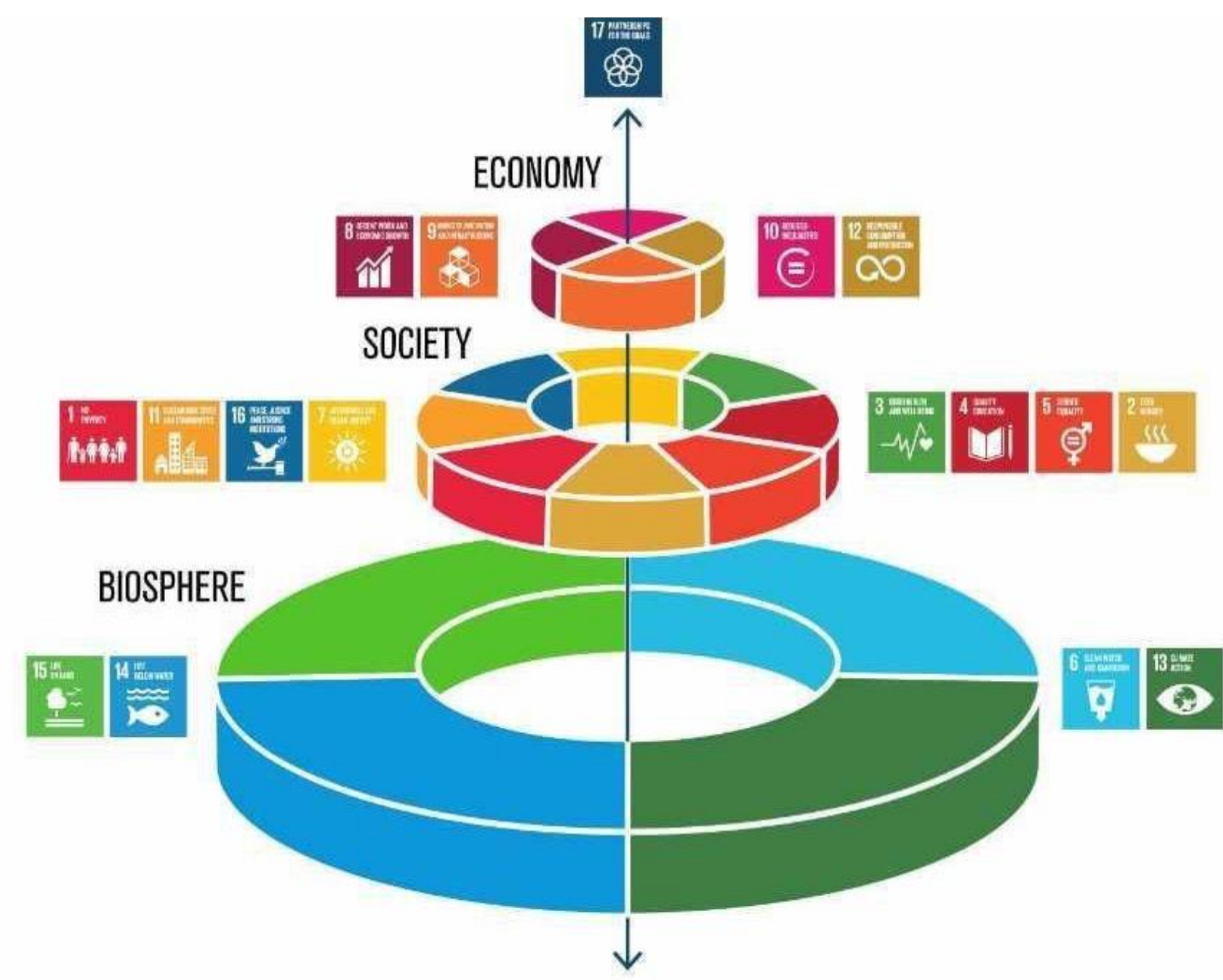


Fig. 2: The SDG Wedding Cake

The following pedagogical approaches are employed:

- Learner Orientated
- Action Oriented
- Transformative

The toolkit will employ these pedagogical approaches in teaching children through their mother tongue. The composition of the toolkit will allow it to be effectively adapted and utilised worldwide, enabling our youngest generation to strive for a more sustainable world in a manner accessible to them. The toolkit must thus be one which circumvents the barrier of language, hence illustrative approaches are favoured.

FRAMEWORK TO SUPPORT CURRICULUM DESIGN FOR ESD

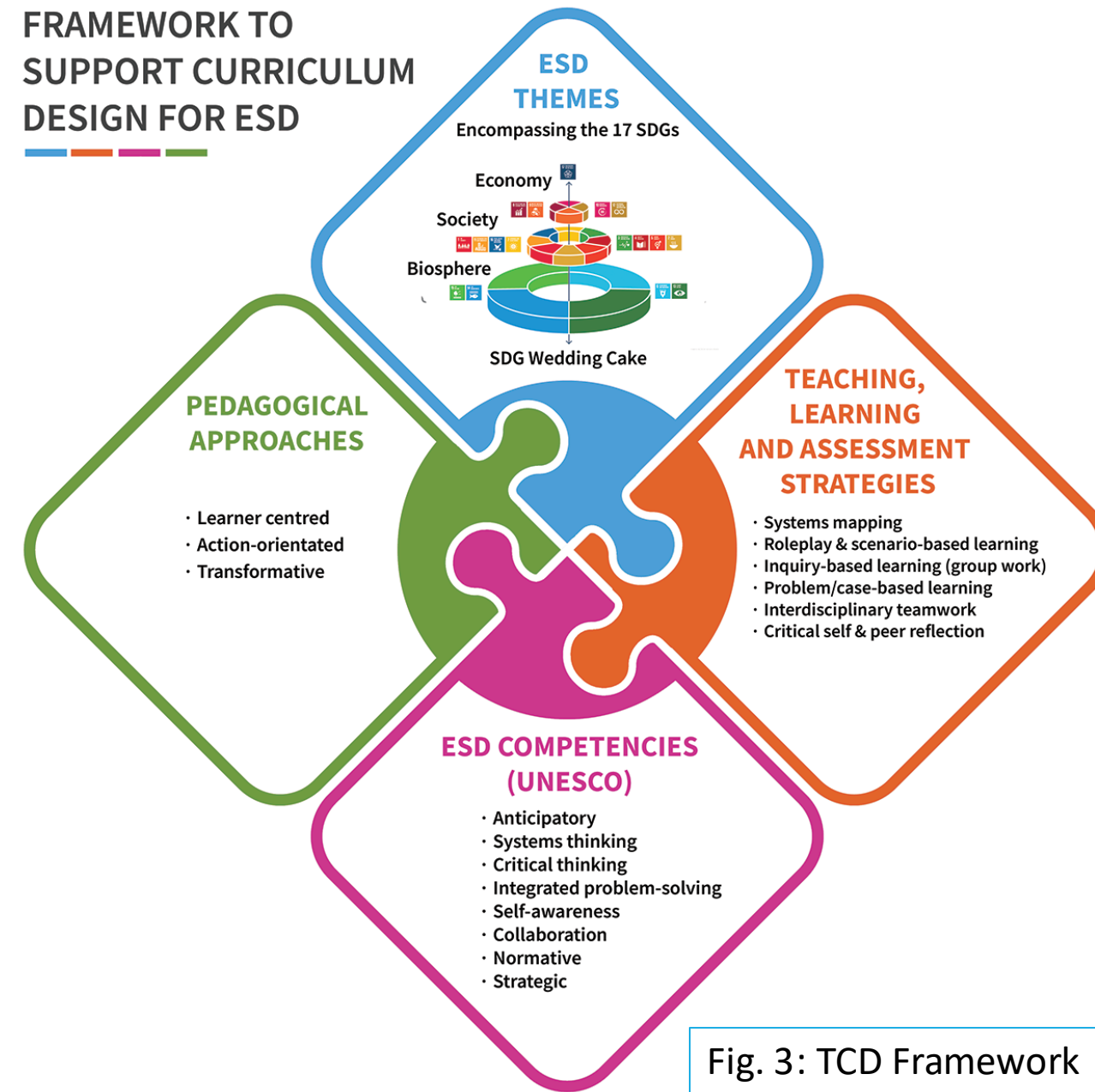


Fig. 3: TCD Framework

Reflections:

Conclusions

The research effectively confirmed the hypothesis, it was discovered that learning through native languages enhances the educational outcomes. Following further research the necessity of creating an ESD toolkit and making it accessible to all those making up our youngest generation was clear. It is hoped that this project may, in a small way, identify a void in the efforts being made to meet these goals and attempt to fill this space, with education, optimism and a more sustainable future.

Challenges

- Limitations in use of technology, lack of AI in indigenous languages.
- Limited access to resources in native speaking areas.
- Solution:** The toolkit will be broadly non language based and deliverable in accessible formats.



Fig. 4: UN SDG's, an interpretation created by UNESCO

The Future of the Project

Having examined the importance of learning through a person’s native language, the necessity of an ESD toolkit has been consolidated. The toolkit shall continue to be developed in the coming year. The toolkit shall first be put in practice in an Irish language learning environment, assessed and modified, then put into practice in the Benegal region of India. Neither Gaelige (Irish) nor Bengali are official UN languages, and do not receive formal dissemination of educational material. Putting the toolkit into practice in both of these differing learning environments, will pave the way for final examination of the toolkit and its efficacy in native speaking regions. The culmination of this research, toolkit development and in-field application is to create a tested adaptable educational toolkit suitable for worldwide implementation.

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