

# EMBEDDING RESEARCH-BASED EDUCATION FOR SUSTAINABLE DEVELOPMENT AND CLIMATE EDUCATION IN THE CURRICULA

**The University of Strathclyde are embedding Research-Based Education (RBE) for Sustainable Development into undergraduate curricula using an innovative pedagogy called Vertically Integrated Projects (VIP) and aligning this with United Nations Sustainable Development Goal (UN SDG)-focused research. The development of student-centred Climate Education workshops is being used to ensure students are offered joined-up Climate Education activity that can support Strathclyde's broader Education for Sustainable Development agenda.**

Strathclyde's Vertically Integrated Projects for Sustainable Development (VIP4SD) programme offers undergraduate students the opportunity to work on interdisciplinary and credit bearing research projects in partnership with their peers from different departments/disciplines (horizontal integration) and year groups (vertical integration), and with experienced researchers and academics, on ambitious research projects that tackle the UN SDGs.

The programme, which began in 2016 and ran as a pilot until 2019, is framed around the UN SDGs to provide a clear identity and purpose for individual projects, while also fostering a common sense of purpose across the entire programme; raising the stakes of teaching and learning; and working to motivate and inspire students to engage in a deeper level of inquiry and learning through research-based education for sustainable development.

The programme has paved the way for a broader strategic objective and commitment at Strathclyde, where "by placing Education for Sustainable Development (ESD), aligned with the UN Sustainable Development Goals (SDGs), at the heart of our curricula we will embrace change in teaching and

learning processes and practices, such as that offered by VIP4SD". The programme has grown from 8 projects during its pilot, to 21 currently with around 150 students and growing.

Given the embedded and interconnected nature of SDGs and the interlocking social, economic and environmental pillars of sustainable development, there is a clear requirement to ensure that all VIP4SD students have some grounded Climate Education.

To ensure this, the University of Strathclyde are developing student-centred Climate Education workshops in conjunction with Climate Fresk, Youth Climate Action Network and Climate Interactive. Bringing these offerings together will provide students with a foundational understanding of the 'causes and effects' of climate change (via the Climate Fresk workshop) and the actions required to mitigate these (via scenario playing using MIT Sloan's En-Roads Climate Simulator in the Youth Climate Action Network workshop).

This combined approach will allow students to engage in peer-to-peer, student-centred and facilitated workshop-based activities and discussions on the causes-effects-actions-solutions associated with climate change and action.

## KEY HIGHLIGHTS

- **Work with the coalition of the willing** to start small with a proof-of-concept pilot and gather evidence of success; then identify and justify resource requirements and build the case for Executive Teams to support scale-up and mainstreaming.
- **To shift perceptions of Climate Education and ESD from 'luxury items' to 'core educational offerings'** that should be threaded through curricula, build a compelling narrative and demonstrate alignment with other strategic objectives, to reinforce their integral role within higher education, the wider institution and its identity.
- **Developing a clear ESD strategy**, framed around the UN SDGs, that fully encompasses Climate Education offers a coherent and complementary approach to embedding within curricula, offering opportunities for interdisciplinary, inter-year group and Collaborative Online International Learning.

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The train-the-trainer model allows students to continue to pay it forward, introducing a multiplier effect that makes this approach inherently scalable. The aim is to dovetail these complementary workshops into a coherent, joined-up Climate Education activity that

can support Strathclyde's broad Education for Sustainable Development agenda.

There are plans for these joined-up workshops to be implemented as part of a Climate Education Kick Off event at October 2021 UN Climate

Change Conference of Youth (COY16) –hosted at the University of Strathclyde, and then owned by a Student SDG Hub to be established in collaboration with the University's Centre for Sustainable Development and StrathUnion.

## KEY FACTS ABOUT THE INSTITUTION

<b>Institution name</b>	University of Strathclyde
<b>Location</b>	Glasgow, UK
<b>Number of students (total for institution)</b>	Ca. 25,000 undergraduates and postgraduates.
<b>Number of staff (total for institution)</b>	3,500-4,000
<b>Campus type</b>	City Centre

## KEY FACTS ABOUT THE CASE STUDY

<b>University or department led:</b>	University
<b>Number of staff engaged:</b>	Ca. 25
<b>Number of students engaged:</b>	Ca. 200 involved with VIP4SD since 2016, but this scalable peer-to-peer, train-the-trainers approach could reach many more than this.
<b>Credit-bearing:</b>	Credit-bearing.
<b>Mandatory or optional:</b>	Optional.
<b>External partners:</b>	International VIP Consortium
<b>Engagement approach used:</b>	Digital approach, group-work initiatives and fieldwork.

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**More info:** [www.strath.ac.uk/studywithus/verticallyintegratedprojectsforsustainabledevelopment/www.emerald.com/insight/content/doi/10.1108/IJSHE-10-2018-0198/full/html](http://www.strath.ac.uk/studywithus/verticallyintegratedprojectsforsustainabledevelopment/www.emerald.com/insight/content/doi/10.1108/IJSHE-10-2018-0198/full/html)

## HOW TO CITE THIS PAPER

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