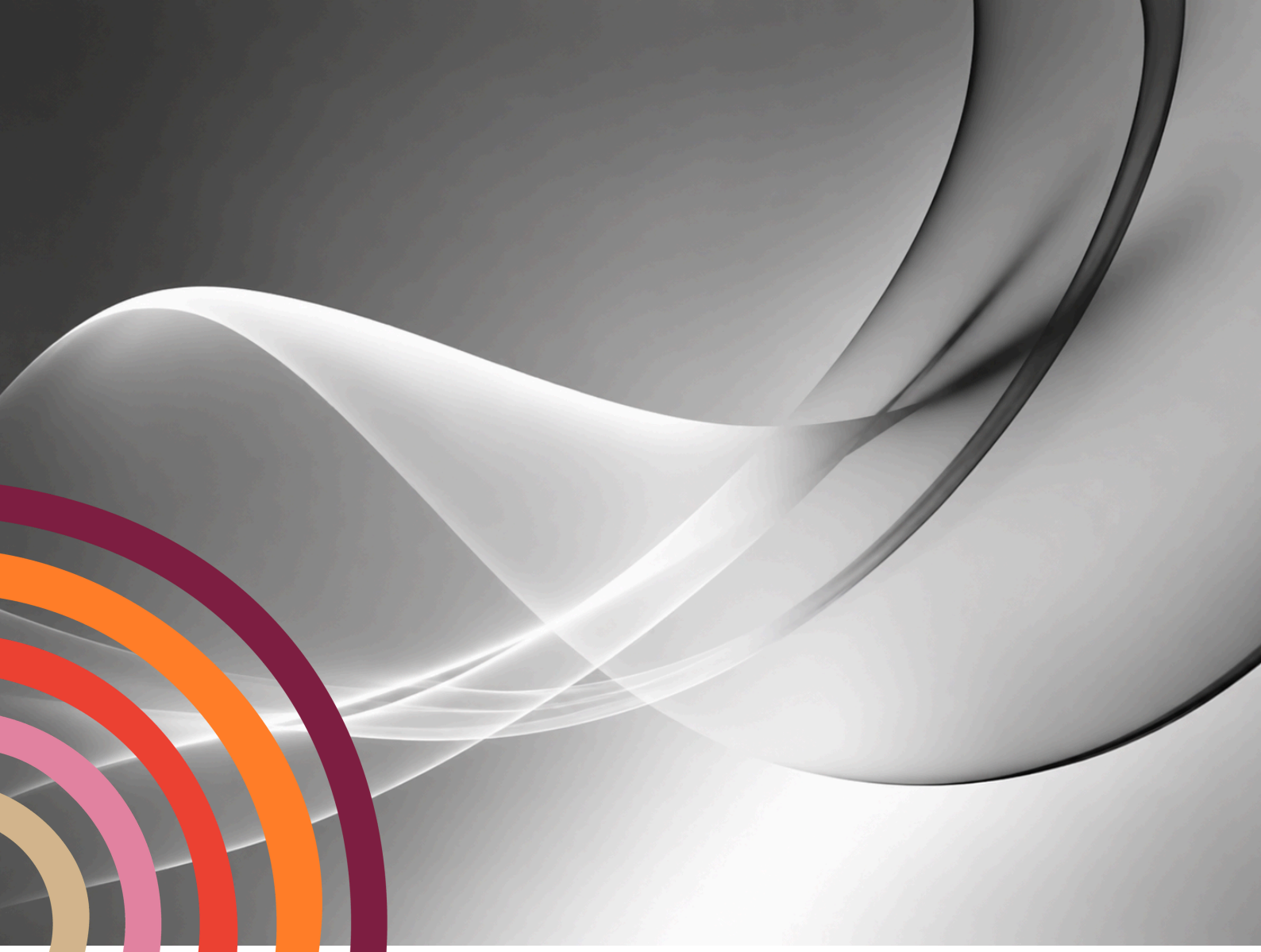


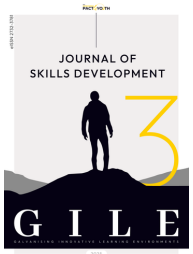
# Casebook of IDG Implementation into Higher Education

Edited by

Yuliya Shtaltovna
Vivianna Rodriguez Carreon

# Casebook of IDG Implementation into Higher Education

Editors: **Yuliya Shtaltovna, Vivianna Rodriguez Carreon**
Editor-in-Chief of the GILE Journal of Skills Development: **Judit Beke**




Design: **Helena Comella Romeu, Patricia Polzer**
**OMP** Platform Manager: **Attila Kovacs**
Copyediting: **Mai Nelly Kaw**

Published by **the Pact for Youth Association**
DOI: **https://doi.org/10.56611/idg.casebook**
ISBN: **978-615-02-6341-0**

Cite as:
**Shtaltovna, Y., & Rodriguez Carreon, V. (Eds.). (2026).**
***Casebook of IDG Implementation into Higher Education*.**
**P4Y Knowledge Repository. https://doi.org/10.56611/idg.casebook**



Responsible Publisher: Pact for Youth Association
Budapest, 2026

The HUNGARIAN PACT4YOUTH

INNER DEVELOPMENT GOALS
Inner Growth for Outer Change

# Table of Contents

# Editorial Introduction

**Dr. habil. Judit Beke**

Editor-in-Chief, GILE Journal of Skills Development

Associate Professor at Budapest University of Economics and Business

It is a pleasure to welcome readers to *the Casebook of IDG Implementation into Higher Education*. This volume emerges from a strategic cooperation signed between *Pact for Youth*, *the GILE Journal of Skills Development (GJSD), and the Inner Development Goals* initiative. Our cooperation is grounded in a shared belief that responding to today's global challenges requires inner capacities, such as self-awareness, empathy, courage, and responsibility that enable meaningful, values-based action.

As Editor-in-Chief of the GJSD, I am particularly pleased to support the publication of this Casebook. I am especially proud that this volume will be made available through the Pact for Youth Knowledge Repository which is a platform designed to connect practitioners, researchers, and educators by providing open access resources on skills development and employability. Ensuring that rigorous, peer-reviewed work is also accessible and usable beyond academic circles is a priority that I strongly share. GJSD has long been committed to advancing practice-oriented research on skills development of young generations, and engaging with the IDG framework represents a natural and timely extension of this work.

The 12 case studies brought together in this volume reflect the richness of higher education contexts worldwide. They offer evidence-based examples of how inner development competencies can be embedded into institutional cultures, curricula, and leadership practices.

I would like to express my appreciation to the editors of this Casebook for their commitment, and to all contributing authors for sharing their insights with such openness. I hope this Casebook will serve as a practical guide and as an invitation to rethink higher education as a space where personal development and societal responsibility are inseparable.

# Foreword

**Dr. Fredrik Lindencrona**

Head of Research Co-Creation
Inner Development Goals

What you hold in your hands is extraordinary. This casebook is living proof that the Inner Development Goals are taking root in higher education — across disciplines, across cultures, across continents. The diversity of approaches represented here reflects something rare: a genuinely global learning community, united by a shared conviction that education must nurture the whole human being.

Every case in this collection represents real people doing real work — experimenting, reflecting, and daring to ask what it means to develop not just competence, but character. Together, they form a mosaic of possibility that will inspire educators, researchers, and change-makers for years to come.

This achievement would not exist without two remarkable individuals. Yuliya Shtaltovna and Vivianna Rodriguez Carreon have poured their dedication, creativity, and heart into making this casebook a reality. They kept the vision alive when the work was hard, and ensured that every contribution was seen, heard, and valued. I am deeply grateful.

I also want to extend my sincere thanks to Judit Beke and the entire team at the GILE Journal of Skills Development (GJSD), whose rigorous support and providing us a platform for academic publication has elevated each and every piece into a genuine contribution to academic knowledge.

To all the authors and collaborators: you have done something that matters. The story has just begun — and I could not be more excited to continue it together.

# Co-Editors

**Prof. Dr. Yuliya Shtaltovna**

Professor at Hochschule Fresenius
Research Professor at Kyiv School of Economics

Co-lead at Global IDG Higher Education Circle

**Dr. Vivianna Rodriguez Carreon**

Academic (Project Supervisor), Division of Curriculum Futures at The University of Sydney

Co-lead at Global IDG Higher Education Circle

# *Preface*

Fellow readers, the Inner Development Goals Higher Education Circle (IDG HE Circle) invites you to read this curated scholarly publication, the Casebook of IDG Implementation into Higher Education. The twelve peer-reviewed chapters are cases that document how the Inner Development Goals (IDGs) have been translated into higher education practices. They synthesise the geographical, institutional and pedagogical scope of the IDGs framework/guide, identifying key patterns across courses, programmes, staff development, communities of practice, experiential learning, leadership education, curriculum mapping and institutional strategy. The casebook gathers situated initiatives that show different entry points into inner development work: toolboxes, degree programmes, study-abroad formats, communities of practice, staff leadership training, teacher education, wilderness learning, entrepreneurship education, social-impact workshops and institution-wide strategies.

## *Why*

Higher education is challenging teachers and learners to prepare for a world shaped by uncertainty and complexity. At the same time, the global advancement towards sustainability remains critically off track. The response associated with Sustainable Development Goals (SDG) cannot be addressed through cognitive knowledge alone. They require capacities from within. In this context, the IDG offered a timely framework for articulating the human capacities needed to support outer transformation. Since it was launched in 2021, it has attracted a growing number of educators seeking language and tools that address the gaps they perceive on the path to sustainability. As an effect, we have seen the emergence of educators, researchers, and change-makers who resonated with an initial framework that responded to an existing gap in research and teaching. They have increasingly drawn on its five dimensions (Being, Thinking, Relating, Collaborating, and Acting) as a practical language for connecting inner development with sustainability-oriented higher education.

Frameworks can inspire, but they do not automatically become curricula, learning environments, institutional strategies or lived pedagogical practices. They need to be implemented, and inner work challenges a cookie-cutter, one-size-fits-all approach to different contexts. The inability to see the inner and outer connection in our human condition for teaching and learning has grown as the process of pedagogy across disciplines has depended on fragmenting knowledge in order to understand and categorise it. For example, a community-led initiative in peacebuilding that is embodied becomes disembodied; a story in literature that is contextualised becomes decontextualised; an Indigenous-led practice in psychology that is holistic is coded into fragments. Within these processes, the distance between concept and experience that defines meaning becomes greater. This framework, like many others, is scrutinised through research and

testing, categorising concepts even further. Therefore, the value is when the teaching of them becomes a process through which the parts become whole again through experience.

Hence from 2023-2024, offering Zoom-led sessions, the IDG Higher Education Circle opened a space for sharing curiosity about how these tools could work in practice. The exchange about how to transform the quality of the interior human condition in pedagogy and cultural transformation felt more urgent than ever. Fast forward, the result can be seen in the over 1,500 LinkedIn members of the IDG Higher Education and Research Co-Creation Circles in 2026. The Circle as a global community helped create the conditions through which practice-based knowledge can be shared, questioned, documented and developed into academic contribution. In this sense, the casebook is not only a publication outcome; it is also part of a wider ecology of scholarly and pedagogical collaboration around inner development in higher education. This casebook therefore invites readers to approach the cases as a portfolio of possibilities. Their value lies in what they make visible: the plurality of ways IDG framework/guide can enter higher education, the conditions that support meaningful implementation, and the challenges that remain when inner development is taken seriously as part of educational transformation. They will become part of the growing IDG-focused Research Compendium, available via GScholar. This IDG live archive brings together publications indexed in Google Scholar that include “Inner Development Goals” and/or “IDG” in their metadata, including titles, abstracts, and keywords, with coverage beginning from approximately 2019–2020. Therefore it serves both as a field-mapping instrument and as an open scholarly infrastructure supporting the consolidation of IDG research.

## *What*

The Casebook of IDG Implementation into Higher Education emerged from the growing global IDG higher education community and from a shared need to document how the original 2021–2025 version of the Inner Development Goals framework was being interpreted, adapted, and embedded in university contexts worldwide. The authors were members from the IDG Higher Education and Research Circles from across the globe who responded to the call for intention for this publication. This resulted in 57 abstract submissions from six world regions: Europe, North America, South America, Africa, Asia, and Oceania. This confirmed both the scale of interest in IDG-based higher education and the need for a systematic publication that could collect, compare, and disseminate emerging practices. However, due to the realities of a large-scale collaboration project, the final collection comprises 12 casebooks, with 38 authors and at least 24 distinct author-affiliation units that are institutionally anchored, grassroots, teacher-led, relational, experimental, and student-centred.

The intention of the casebook was to create a community-based knowledge project: a way to make visible the dispersed, often experimental, and locally situated practices through which universities were translating the IDG framework into curricula, courses, leadership education, faculty development, student engagement, and institutional transformation. The movement from

concept to implementation requires translation: into disciplines, classrooms, staff-development formats, assessment cultures, organisational routines, student experiences and local institutional realities. This translation is never linear and/or uniform. It is shaped by context, resources, culture, language, leadership, pedagogical traditions and the readiness of educators and learners to engage with inner development as part of academic formation. The edited collection was developed in response to this implementation gap. It brings together early examples of how universities and higher education-related organisations have begun to work with the IDGs in practice.

## *How*

To provide a formal publication platform for those who submitted cases, the casebook initiative was institutionalised through a Memorandum of Cooperation between the Inner Development Goals initiative and the Pact for Youth Association, publisher of the GILE Journal of Skills Development (GJSD). This cooperation created the academic infrastructure needed to transform the initial community-based submissions into peer-reviewed scholarly contributions. We want to express our appreciation to the whole team who helped to make this casebook a published edited volume. With the support of the Pact for Youth Association, the P4Y Knowledge Repository was established as a dedicated online publication and knowledge-sharing platform. The repository and the GJSD journal publication platform provided the infrastructure for case submission, manuscript development, peer review, revision, and publication, ensuring that contributions met the established academic and editorial standards. This ensured that the casebook process through selected cases progressed from abstract submission to manuscript development, double-blind peer review, revision, editing, and final publication.

Several challenges emerged during the development of this project. Following changes to the planned budget and subsequent developments within the Inner Development Goals organisation, the editors shifted the publication format from a series of special issues to a casebook published in book form. At the same time, constraints of voluntary contributions, uneven author capacity, and the varying stages of development and implementation of the initiatives meant that not all submitted manuscripts could be included in the final publication, and led to a delay in the overall project process.

## *Acknowledgements*

We gratefully acknowledge the time, expertise and careful scholarly attention generously contributed by the reviewers of this casebook. Their participation in the double-blind peer-review process was essential in ensuring the academic quality, integrity, and credibility of the published cases. We are also grateful to Dr. habil. Judit Beke, Editor-in-Chief of the GILE Journal of Skills

Development for her editorial leadership, project oversight, and generous contribution to this publication. We want to acknowledge Dr. Fredrik Lindencrona for representing the Inner Development Goals Research Co-Creation, the outlet given to the publication and the spaces provided where this project emerged from. We thank the volunteer contribution of the copyediting by Mai Nelly Kaw and the platform management by Attila Kovacs for their time and dedication. We want to acknowledge the contribution on the early stages for the design to Helena Comella Romeu, and Patricia Polzer. We also have a special acknowledgement section for the peer-reviewers, through which we thank them for their commitment to scholarly contribution. Finally, we acknowledge the authors, without whose contributions this casebook would not be possible, and whose casebook overviews are present after this preface: Ailsa Foley, Andrea Fernández, André H.J. Nijhof, Belle K. Jansen, Bianca Briciu, Christine Wamsler, Danny Freira, Fariba Vaziri-Sani, Gabrielle Dupuis, Guido W. Knibbe, Ilja Boor, Ioana Smarandita-Arbone, Isabel Wolf-Gillespie, Laura Sharp, Lena Christensen, Maria Eisenmann & Nataliia Lazebna, Marianne Loor, Marquis Bureau, Martin Garwicz, Martina Oxling, Mattias Johansson, Max Liljefors, Maysa Mazzon Camargo, Mia Wilson, Michaël Séguin, Nicholas Roster, Pernilla Thellmark, Rafaela Rolim, Raquel da Silva Barros, Ricardo Dutra Gonçalves, Sabine G. Uijl, Sara Arruda do Carmo, Sara Gabrielsson, Sarah Emond, Taynara Silva Santos, Thaís Paoliello, Veronika Pereseina.

## *Reflections*

The submissions showed that most implementations began as small-scale, faculty-led or programme-level experiments and then expanded through institutional legitimacy, stakeholder buy-in, and alignment with existing priorities such as sustainability, employability, student well-being, leadership education, or social responsibility. This pattern suggests that IDG integration in higher education often follows a process of progressive scaling, moving from individual champions and course-level experimentation towards curriculum-level integration and, in some cases, institution-wide adoption.

At the same time, the casebook documents persistent challenges. These include language inequity, resource asymmetry, self-selection bias, institutional rigidity, assessment difficulties, limited faculty development, and the risk of reducing inner development to employability-oriented “soft skills.” Several submissions also raise questions about cultural adaptation, especially where the IDG framework requires reinterpretation in relation to indigenous, collectivist, or non-Western epistemologies. Rather than presenting the IDG as a universal template, the casebook shows how it is being localised, translated, and re-owned by institutions according to their pedagogical, cultural, and societal contexts.

The scholarly base is equally substantial. Across the twelve chapters, the richness of the sources accumulated is vast: reference lists contain approximately 453 cited items, including peer-reviewed articles, books, policy reports, frameworks, institutional documents and web

resources. This cumulative bibliography reflects an emerging field at the intersection of sustainability education, transformative learning, leadership development, psychology, design thinking, global citizenship, contemplative pedagogy, relational wellbeing and organisational change.

The *Casebook of IDG Implementation into Higher Education* therefore offers more than a collection of examples. Truly, it maps a growing international ecology of practice in which the IDGs are translated into curricula, spaces, tools, rituals, journeys, assessment challenges and institutional strategies. Its value is both practical and conceptual: it shows where implementation is already happening, who is being reached, what formats are proving generative, and which tensions remain, especially around assessment, scaling, facilitation, teacher readiness, emotional safety, institutional support and the risk of reducing inner development to another measurable output. Most importantly, the cases show that higher education can cultivate not only knowledge about transformation, but the human capacities through which transformation becomes possible. We hope this casebook will serve as both evidence and an invitation. Evidence that IDG implementation in higher education is already unfolding across the world. An invitation for others to join, connect, adapt, question, research, and contribute. We warmly invite educators, students, researchers, academic leaders, and practitioners to write their papers, document their cases, share their practices and become part of the growing inner development movement in higher education and beyond.

With gratitude to all contributors and readers.

By Yuliya Shtaltovna and Vivianna Rodriguez Carreon

# *Overview*

Casebook 1, *Transition Makers Toolbox: Implementing the Inner Development Goals in Higher Education* by Ilja Boor, Belle K. Jansen, Guido W. Knibbe, and Sabine G. Uijl present how the IDG framework are implemented in the Netherlands through the Transition Makers Toolbox, developed at the University of Amsterdam with Utrecht University/EWUU partners. This teacher-facing, open-source resource helps educators embed IDG learning outcomes, activities and assessments into higher education. Its structure is deliberately bottom-up: "made by teachers, for teachers," through co-creation sessions, try-outs and a community of Transition Makers. The case reports 24 tools, 24 makers, 6 co-creation sessions, 5 try-outs, 7 workshops, 275 Dutch HE Hub members, more than 56,000 page views and 2,718 downloads. The value lies in open access, Creative Commons materials and scalable teacher empowerment. The win is converting IDGs from an inspirational framework into constructive-alignment practice; the lesson is that assessment of inner capacities remains challenging. It can inspire educators, programme teams and teaching-and-learning centres.

Casebook 2, *Bridging Inner Development and Global Challenges by Embedding IDGs in Education: The Case of Nyenrode* by André H.J. Nijhof present a strategic, mission-aligned implementation of the IDGs at Nyenrode Business Universiteit in the Netherlands. Rather than beginning from one course, Nyenrode uses its mission "serving society by shaping responsible leaders for a sustainable future" as the institutional anchor. The initiative is mainly top-down and systemic, but depends on faculty and student engagement. Its structure translates Leadership, Entrepreneurship and Stewardship into ten responsible leadership competencies, then maps SDGs, ESG principles and IDG-related competencies across twelve degree programmes. The case links IDG work to transformative, reflexive and experiential learning, Assurance of Learning, faculty development and international coalition-building. Resources, funding and personnel are named as implementation challenges rather than fully costed budget lines. The main lesson is that IDGs gain traction when linked to mission, curriculum design and measurement, not added as a parallel initiative.

Casebook 3 *Implementing the Inner Development Goals in Higher Education: Examples from a Master's Programme in Psychology with a Focus on Future and Global Survival* by Mattias Johansson present IDG implementation in Karlstad, Sweden, at Karlstad University through a new Master's Programme in Psychology with a focus on future and global survival. The initiative is programme-level, supported by institutional leaders and carried out by a small working group: four teachers were assigned responsibility in the first phase, with course leaders and later a programme council involving students. The structure is a remote, four-semester full-time master's programme, with three-day campus meetings each semester to build community. IDGs are used on three levels: as a generic programme framework, as a scaffold for professional development and reflective learning, and as a design tool for course content. Institutional

resources were allocated at the beginning, with fewer resources in the second year; the article reports no external funding. Wins include positive student evaluations and a bridge between inner psychological insight and outer sustainable behaviour change. Lessons include emotional safety, teacher autonomy and iterative course correction.

Casebook 4, *Synergistic Sustainability: Integrating Inner Development Goals into Experiential Education in Brazil* by Rafaela Rolim and Nicholas Roster present IDG implementation in Brazil through a short-term experiential study-abroad programme delivered by Northwestern Michigan College with Brazilian Experience. The initiative is a nine-day, IDG-centred learning journey designed from the ground up to make the environmental cost of travel educationally meaningful. It involved 13 students, two NMC faculty members and one Brazilian Experience guide. Its structure follows experiential learning: immersion, reflection, conceptualisation and application. Students engaged in conservation site visits, beach clean-ups, invasive species removal, reforestation, animal enrichment work and flood-relief activities, paired with daily reflection, journaling, mindfulness and group dialogue. Its main win is showing that study abroad can cultivate self-awareness, systems thinking, empathy and agency. Its lesson is that mobility-based learning needs intentional regenerative design to justify its footprint.

Casebook 5, *Lund University and the Inner Development Goals: From Individual Engagement to Global Ripple Effects* by Christine Wamsler, Pernilla Thellmark, Fariba Vaziri-Sani, Sarah Emond, Max Liljefors, Martin Garwicz, Marianne Loor, Lena Christensen, Martina Oxling, Sara Gabrielsson present how the IDGs have been institutionalised in Lund, Sweden, at Lund University through a decade-long movement from individual engagement to global ripple effects. The initiative began around the Contemplative Sustainable Futures Program and LUCSUS's early role in the emergence of the IDGs, with Christine Wamsler acting as senior scientific advisor. The structure is multi-layered: undergraduate and postgraduate courses, student career services, staff capacity development, strategic collaborations, wellbeing and working-environment initiatives, research, outreach and global networking. It is a hybrid of grassroots leadership, champion-driven pilots and formal institutional support. Funding appears through LU lifelong-learning funds, strategic collaboration initiatives, covered staff participation in the IDG Ambassador Program and Erasmus+ work such as ALIGN. Wins include new courses, partnerships, coalition-building and global recognition. The lesson is that IDG work scales through patient institutionalisation, continuous financing and cross-unit legitimacy.

Casebook 6, *From Self to World: Implementing the Enlace Metro for Inner and Relational Development in Higher Education* by Ricardo Dutra Gonçalves, Raquel da Silva Barros, Maysa Mazzon Camargo, Sara Arruda do Carmo, Taynara Silva Santos, Thaís Paoliello presents IDG implementation in Sorocaba, Brazil, at Centro Universitário FACENS through the Enlace Metro, developed within the broader Enlace System and Enlace Lab. The initiative began after university leadership requested support for students' social and emotional needs, but evolved into a participatory, design-based and relational pedagogy involving students, faculty, monitors and the wider academic community. Its structure is metaphorical: an imaginary metro system

with zones of “Me and Myself,” “Me and Others” and “Me and the World,” where each station represents an IDG competency and an experiential activity. The five-year case draws on Awareness-Based Design, co-design workshops, surveys, prototyping and classroom observations across 18 undergraduate programmes. The win is making inner development visible through a student-friendly metaphor. The lesson is clear: mandatory self-directed activities alone do not create inner development; facilitation, teacher development and responsive intervention are needed.

Casebook 7, *Think Globally, Act Locally: IDGs of Pre-Service Teachers as Anchors of Social Activism and Global Citizenship* by Maria Eisenmann & Nataliia Lazebna presents IDG implementation in Würzburg, Germany, and Zaporizhzhia, Ukraine, through a four-phase teacher-education and social-activism collaboration between Julius-Maximilians-Universität Würzburg and the National University “Zaporizhzhia Polytechnic,” with additional European eTwinning partners. The initiative is grassroots and partnership-based, shaped by educational and social needs after Russia’s full-scale invasion into Ukraine and the arrival of displaced Ukrainian learners in Germany. Its structure includes inter-institutional collaboration, social extracurricular activities, a language-promotion and integration project for Ukrainian children and youth in Würzburg, and a course on Transcultural Project-Based Learning through eTwinning. The MAP model (Meaning, Awareness, Purpose) frames student IDGs alongside People, Ecological and Spiritual dimensions. No financial support is reported. The wins include empathy, resilience, belonging and community engagement among pre-service teachers. The case inspires teacher educators, refugee-support programmes and Global Citizenship Education.

Casebook 8, *Spaces of Resonance: Cultivating the Being and Relating Dimensions of the Inner Development Goals through Communities of Practice in Higher Education* by Bianca Briciu, Ioana Smarandita-Arbone, Michaël Séguin, Marquis Bureau and Gabrielle Dupuis presents the implementation in Ottawa, Canada, at Saint Paul University. Focusing on the Inner Development Goals (IDGs) dimensions of Being and Relating, this casebook analyses transformative learning approaches of students in Canada. It explores a community of practice that engaged 15 students at Saint Paul University in sessions applying mindfulness and self-awareness, Social Presencing Theatre, care and resonance, creative processes, shadow and trauma work, and lastly psychospiritual integration. The aim of the sessions was to engage them in a series of experiential, transformative journeys to cultivate capacities for flourishing by deepening their inner awareness. The structure followed 90 min. focus groups at the end of the community of practice, where participants were asked about the impact of the practices on their inner development. Based on qualitative thematic analysis, we examined the impact of these approaches on the Being and Relating dimensions of the IDGs. Students experienced a change from the ego to eco mindset. The deeper the connection among participants, the higher their awareness of interconnectedness and interdependence, from inner and outer, as well as IDG Being and Relating.

Casebook 9, *Inner Development Goals: Experience in Leadership Training in Higher Education* by Danny Freira and Andrea Fernandez presents IDG implementation in Uruguay at Universidad de la República. This case study summarizes the use of the Inner Development Goals (IDGs) tools among technical, administrative, and service (TAS) staff at the University of the Republic (UdelaR). In a virtual and synchronous format, the sessions consisted of weekly 90-minute sessions over four weeks. It included activities centered on experiential learning, with dynamics from Theory U, deep listening exercises, perspective-taking activities, relational archetypes, Non-Violent Communication, meditation at the beginning and at the end, and scribing. The participants were in positions of responsibility. The workshops put emphasis on the five IDG dimensions: Being, Thinking, Relating, Collaborating, and Acting. This study applied grounded theory and a phenomenological approach for the analysis. It argued the individual, social, and environmental divide we live in, with emphasis on Latin America. The results indicate that participants recognized the importance of the IDGs in training opportunities in higher education that reduce the possibility of burnout and enhance teamwork, to better approach conflict management and improve communication.

Casebook 10, *The IMPACT Project: A Case Study of a Potentially Replicable and IDG-Aligned Education for Sustainable Development Initiative* by Mia Wilson, Ailsa Foley and Laura Sharp. This case study presents the Inspiring Movements for Progressive Action and Change Together (IMPACT) project as an Education for Sustainable Development (ESD) initiative aligned with Sustainable Development Goal (SDG) Target 4.7 at the University of Glasgow (UoG), Scotland. It includes a background, development, implementation, and exploratory qualitative analysis. It aims to describe its underpinning pedagogy, retrospectively and subjectively map its learning activities to the Inner Development Goals (IDGs), and retrospectively explore student feedback in relation to these tentative mappings and the ESD literature. The initiative by the facilitators came after the Director-General of the World Health Organization (WHO) was awarded an honorary doctorate by the UoG, where he encouraged students to participate in change campaigning activities. A one-day workshop was planned on the main campus from 9 am to 5 pm that included, among different activities, traditional lecturing, gamification, group debate, self-reflection, peer interaction and learning, group discussion, role play, problem-based learning (PBL), and project-based learning (PjBL). To adapt this project, the evidence base needs to be strengthened with larger samples, consistent competency definitions, and appropriate evaluation tools.

Case 11, *Nature-Based Wilderness Field Trips as Inner Development Guide (IDG) Interventions: A Southern African Case Study of Inner to Outer Transformation Among University Students* by Isabel Wolf-Gillespie. This study explores Hero's and Heroine's Journey frameworks through exposure to wilderness, with an intervention that included a six-day immersive ecological experience in Botswana. It examined embodied archetypal experiences within the IDG Thinking and Being dimensions. Transformative Jungian archetypal psychology provides a deeper frame in which myths, dreams, and cultural narratives shape identity, behaviour, and perception. It

analyses sustainability as archetypal, whereby the Mother archetype is expressed as the Earth Mother through symbols of nourishment, fertility, and life-giving power, symbolising nourishment, fertility, containment, and life-giving power. With the human–nature connection as the foundation for an inner-to-outer approach to sustainability transformation, university students were invited to a six-day experiential program to foster inner development. To implement the Inner Development Guide, guided walks, solo reflection, ecological observation, group dialogue, and structured sensory awareness practices inspired by the principles of forest bathing (shinrin-yoku), as well as wilderness mindfulness, were used, and participants spent approximately 8–10 hours per day immersed in nature. The daily introspection practices led to perceptible intentions and actions, including initiating sustainable behaviours, demonstrating how personal insight can foster sustainable and actionable change.

Case 12, *Application of Inner Development Goals through Design Thinking in Entrepreneurship Education: A Case of the College of Interdisciplinary Studies at Zayed University, UAE* by Veronika Peresina. To find solutions for wicked problems and sustainability in entrepreneurship education, this case study implements design thinking to integrate the Inner Development Goals framework. Over three semesters in 2023 and 2024, this innovative academic unit, the Fundamentals of Innovation and Entrepreneurship course at the College of Interdisciplinary Studies, Zayed University, was taught to approximately 100 students. Aligned with the principles of Education for Sustainable Development (ESD), this unit was rooted in a human-centred approach, with design thinking enabling qualities so often overlooked, such as empathy and compassion, to be integrated for sustainable development. It included practical workshops focused on the whole design thinking process: problem identification, reframing, iterating, prototyping, and testing. The experience involved active listening (while identifying core needs through several rounds of questions for deeper enquiry), empathy and compassion (while listening), and critical thinking skills (when creating an empathy map, drawing a journey map, and reframing the problem). Reflective feedback from the participants showed growth in relational and collaborative capacities. This casebook highlights how a design-thinking process that integrates IDG empathy, compassion, and collaboration is needed in entrepreneurship education to foster interdisciplinary thinking and engage problem-based learning to address today's complex problems.

# The Casebook of IDG Implementation into Higher Education

## Acknowledgement of Peer-Reviewers

All cases included in this casebook underwent a rigorous double-blind peer review process conducted by independent experts. Reviewer identities were not disclosed to authors or otherwise at any stage, ensuring objectivity and adherence to international scholarly standards.

We sincerely thank our reviewers for volunteering their time, expertise, and commitment. Their careful evaluations and constructive feedback have been instrumental in strengthening the quality and scholarly contribution of this volume.

We gratefully acknowledge the reviewers:

Amy Isham
Andre Henk Jan Nijhof
Bianca Briciu
Christine Blais
Debasis Dash
Danny Freira
Dimitar Karadzhov
Hanna Shvindina
Isabel Wolf-Gillespie
Juan Barros
Laura Burgis
Lena Ramstetter
Mattias Johansson
Milán Páczai
Nataliia Lazebna
Raquel Barros
Ricardo Dutra Goncalves
Sophia Koustas
Wendy Elford

# Cases of IDG Implementation into Higher Education

The HUNGARIAN PACT4YOUTH

INNER DEVELOPMENT GOALS
Inner Growth for Outer Change

https://doi.org/10.56611/idg.casebook.001.1

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

## Transition Makers Toolbox: Implementing the Inner Development Goals in Higher Education

**Ilja Boor**

University of Amsterdam, Teaching & Learning Centre,
Amsterdam, The Netherlands
ORCID: 0009-0006-9150-3309

**Belle K. Jansen**

University of Amsterdam, Institute for Interdisciplinary Studies,
Amsterdam, The Netherlands
ORCID: 0009-0004-3639-8791

**Guido W. Knibbe**

University of Amsterdam, Institute for Interdisciplinary Studies,
Amsterdam, The Netherlands
ORCID: 0009-0008-9216-2096

**Sabine G. Uijl**

Utrecht University, EWUU alliance of TU/e, WUR, UU, UMC Utrecht,
Utrecht, The Netherlands
ORCID: 0000-0001-6511-3266

**Abstract**

The Transition Makers Toolbox represents a pivotal development in integrating the Inner Development Goals (IDGs) into higher education. This paper explores the Toolbox's creation, aimed at addressing the growing demand for educational frameworks that incorporate holistic student development beyond traditional academic outcomes. By facilitating educators' engagement with the IDGs through practical tools including learning outcomes, activities and assessment methods, the Toolbox has catalysed significant curricular innovations. It serves not only as a resource for embedding the IDGs into courses, but also as a hub for ongoing teacher development and curriculum innovation. Challenges encountered in implementing constructive alignment, especially assessment design, underscore the complexities of this integration. Despite these hurdles, the Toolbox exemplifies an effective, step-by-step approach to curriculum enhancement, offering insights and strategies for educators seeking to enrich their teaching with the IDGs. The Transition Makers Toolbox is developed for pioneering educational transformation, impacting both curriculum development and teacher empowerment.

https://doi.org/10.56611/idg.casebook.001.1

***Keywords/key phrases*:** Inner Development Goals (IDG), higher education, transition making, sustainability education, affective learning, constructive alignment

## 1. Aims and Objectives

Our world is at a critical juncture, facing unprecedented challenges ranging from climate change and biodiversity loss to social inequality and economic instability. These challenges call for creative solutions and a new breed of leaders who can think and act beyond conventional paradigms, demonstrating wise decision-making skills. This new leadership emphasizes a holistic, integrative approach that transcends traditional leadership models, which are characterized by top-down hierarchical structures, focus on short term results and efficiency, with an emphasis on control and certainty. New leadership advocates for leaders characterized by their ability to foster systemic change, navigate uncertainty, and inspire collective action towards a more equitable and sustainable future. This requires a deep understanding of the interconnectedness of social, economic, and environmental systems and is rooted in both external knowledge and internal growth (Shove et al., 2007; Bowen et al., 2017; Castro et al., 2021; Ives et al., 2023).

This new leadership paradigm underscores the importance of inner development alongside professional skills. Leaders are encouraged to cultivate self-awareness, emotional intelligence, and resilience, enabling them to lead with integrity and compassion (Goleman, 1998). This approach was already introduced at the end of the last century, however, is often still lacking nowadays. This persisting need for new leadership led to the development of the Inner Development Goals (IDGs), which emphasize personal qualities such as empathy, resilience, and ethical reasoning (Ives et al., 2023; Pöllänen et al., 2023; Wamsler et al., 2022).

The IDGs were recently developed by a Swedish non-governmental organization in collaboration with an international group of renowned researchers, experts, and practitioners in the fields of leadership development and sustainability. This comprehensive and explicit framework comprises 23 skills and attitudes distributed across five distinct dimensions: Being (relationship to self), Thinking (cognitive skills), Relating (caring for others and the world), Collaborating (social skills), and Acting (driving change) (Inner Development Goals, n.d.). This framework is quickly gaining worldwide acceptance as it addresses the comprehensive aspects of inner development crucial for individuals navigating the challenges of the modern world.

Higher education institutions (HEIs) deliver our future leaders and therefore have a pivotal role to in equipping students with the tools needed to think beyond conventional paradigms and to address complex global challenges (Brennan et al., 2008; Barnett, 2012). This calls for a reimagined purpose of higher education, one that equally prioritizes the cultivation of values and attitudes alongside academic and professional competencies. Bridging this gap necessitates a paradigm shift in educational practices and curricula, moving towards a more integrated approach that values inner development as fundamental to the formation of well-rounded, ethically conscious individuals prepared to contribute positively to society.

The current landscape of higher education predominantly focuses on the acquisition of knowledge and academic skills such as writing, presenting and research skills. Equally crucial aspects of values and attitudes – such as integrity, perspective skills, connectedness, mobilization skills and perseverance – are often overlooked (Cobo, 2013; Jardim et al., 2017). This discrepancy was already underscored almost two decades ago, emphasizing the need for a

more holistic educational approach that integrates personal and professional development (Cardno, 2005; Mahmoudi et al., 2012).

The HEIs, educational programs and teachers that do want to implement the IDGs – or equal competencies based on comparable frameworks – in their education, are struggling with how to integrate this in curricula. Moreover, many teachers are currently underprepared for this expansive role. The traditional focus of higher education on imparting knowledge and skills has not adequately equipped educators to facilitate the holistic development of students, encompassing values, attitudes, and inner growth (Britzman, 2000; Nies, 2011; Zhu et al., 2013).

Therefore, we define the following hurdles in implementing the IDGs in higher education curricula:

1. From a perspective of higher education, learning activities and good practices are missing, or scarce. The constructive alignment fundament for softer skills requires a different approach compared to theoretical and knowledge-based education. For example, developing empathy may require reflective journaling, coaching dialogues, or experiential learning, which differ significantly from conventional lectures or exams (Biggs & Tang, 2011).
2. There is misconception that soft skills such as empathy, perspective-taking, or self-awareness are innate traits rather than skills that can be trained or developed. In fact, a growing body of research shows that these capacities are indeed teachable and improvable through deliberate practice, reflective engagement, and social interaction (McNaughton, 2016; Morgan et al., 2021).
3. Most teachers in higher education are not equipped for this education, since it is not yet included in teachers' professional development trajectories. As a result, they may lack the competencies, tools, and confidence to foster inner development competently in their classrooms (Cardno, 2005; Mahmoudi et al., 2012).
4. Teachers who are enthusiastic about integrating the IDGs into their curricula often struggle to find peers with the same level of interest. Without formal communities of practice or institutional incentives, they lack peer support and shared resources, which are critical for sustaining innovation in pedagogy. This isolation can reduce motivation and slow the spread of good practices across departments or institutions (Warhurst, 2006).

Our approach to tackling these problems starts with focus on transition-making education. Transition-making education represents a comprehensive interdisciplinary or transdisciplinary approach that transcends traditional academic boundaries, emphasizing the development of holistic, adaptive, and resilient capabilities. Transition-making refers to the process of fostering significant, systemic change through education, research, and community engagement to address global challenges. In our definition, the purpose of transition-making education is to prepare students to take a role in the fast-changing society, contributing to tackling the growing challenges our planet faces. Therefore, it is a collective term for different didactic concepts, such as community-engaged learning, impact learning, community service learning and challenge-based learning. All these concepts aim to equip individuals — students, educators,

and the wider community — with the knowledge, skills, attitudes, and values needed to contribute to a sustainable future (Van den Beemt et al., 2023; Gallagher et al., 2023). Furthermore, transition-making education refers to education that integrates inner development within traditional academic learning (Cardno, 2005; Mahmoudi et al., 2012). The IDGs can be integrated both ways: by including transition-making education in courses as didactic concepts, and by including learning outcomes and related activities as parts of a course. Given the status of higher education, including the capabilities of the overstrained teacher body, teachers need to be facilitated in incorporating the IDGs into their education in an easily approachable, user-friendly manner. This resulted in an open-source web-based Toolbox – the Transition Makers Toolbox - consisting of three parts: educational materials, inspiring good practices, and a community of Transition Makers.

With this approach, we aim for two results:

1. Deliver evidence-informed teaching materials as a start of integrating the IDGs into the curricula.
2. Create a growing community of teachers equipped to change the curricula.

## 2. Context

### 2.1. The Development of the Transition Makers Toolbox

To effectively incorporate inner development into higher education, it is crucial to employ a structured didactic framework.

We created a new framework by combining two key elements. The first element involves the valuable IDG framework, serving as a foundation for teaching our students the skills and attitudes essential for making meaningful contributions to future society.

We juxtaposed this framework against established benchmarks employed in transition-making education (Trilling et al., 2012; Bourn, 2018; UNESCO, 2017) and the results of stakeholder meetings discussing the skills students should acquire to make meaningful societal contributions during their education. Based on these findings, the IDG framework indeed can be used for our educational purposes. A missed 'skill' was resilience. In higher education nowadays, this is an important student trade related to student well-being. Therefore, in our setting, the IDG framework was enriched by adding resilience to the existing skill "perseverance" into "perseverance and resilience".

Our purpose was to make a high-quality evidence-informed Toolbox that is suitable for education. Therefore, we intertwined the second element of the framework with one of the most essential educational principles: constructive alignment (Biggs, 1996). Constructive alignment ensures that learning objectives, teaching methods, and assessment strategies are seamlessly connected, significantly influencing the overall quality of education. While this alignment is crucial for all educational contexts, it poses a particular challenge in education with a focus on transitions. This difficulty arises because teachers often find it challenging to formulate clear learning outcomes on skills and attitudes, such as complexity awareness or empathy, and struggle with assessing them. Assessing the Inner Development Goals requires a fresh perspective on assessment that extends beyond merely evaluating if students achieved cognitive

learning outcomes, such as the reproduction of knowledge. Besides, there is a common perception that so-called "soft skills" are challenging to assess, and educators may feel unequipped or uncertain about evaluating these aspects of student development. In this context, it is important to view assessment in a broader sense. Instead of limiting its interpretation, the intention is to recognize that assessment serves various objectives or purposes. Assessment is not just a singular process but rather encompasses multiple goals and functions. It implies a need to understand and acknowledge the diverse roles that assessment can play, indicating that it goes beyond a narrow or restrictive understanding. The broader interpretation could involve considering assessment as a tool for learning, self-directed progress, and overall evaluation of achievement (Yan, 2020).

## 3. Methods

### 3.1. Approach to Creating the Transition Makers Toolbox

#### 3.1.1. Converting the Inner Development Goals into Intended Learning Outcomes

The Transition Makers Toolbox is designed in a collaboration between education professionals in the Netherlands (see author affiliations), the so-called Toolbox team. The tools within the Toolbox are created in co-creation with teachers from a growing body of higher education institutes in the Netherlands. These teachers bring their own education practice to the co-creation sessions. That way existing education is re-designed within the Toolbox in order to make the education available for other teachers to use in their own educational context.

The initial building block involved converting the relatively abstract concepts of the Inner Development Goals into clearly defined intended learning outcomes (ILOs) appropriate for higher education. ILOs are crucial for education because they provide direction, focus, and a framework for designing, delivering, and evaluating educational experiences (Biggs et al, 2011). They serve as a starting point by setting clear expectations and enabling effective planning and execution of the teaching and learning process (Hattie et al, 2007). These outcomes become the guiding principles for the entire educational process.

We achieved this through the application of Bloom's taxonomy (Bloom et al., 1956; Krathwohl et al., 1964; Anderson et al., 2001). Utilizing this taxonomy, learning outcomes can be classified into three domains, each comprising different levels. The cognitive domain pertains to the capacity to absorb and apply information meaningfully. The psychomotor domain involves motor skills and coordination, while the affective domain encompasses attitudes and emotions linked to the learning process. This systematic categorization facilitates a comprehensive mapping of diverse learning objectives, forming a complete didactic model. Furthermore, being an internationally recognized model, it employs a refined language, associating verbs with each domain and level, indicating the specific actions a student must demonstrate to attain the corresponding proficiency level.

In addition to clearly specifying what is expected of students and at what level, ILOs also play a crucial role in the implementation of the IDGs in education. Once learning objectives are formulated for the IDGs, they can be included in students' course catalogues and then become an integral part of both individual courses and the broader curriculum.

### 3.1.2. Designing the Transitions Makers Toolbox

After formulating the ILOs, the next step was developing educational materials to help achieve and assess these outcomes. However, the developed educational material alone is not sufficient to integrate them into the curriculum. Teachers play a crucial role in this regard. Therefore, we chose to create a Transition Makers Toolbox in collaboration with teachers. The Transition Makers Toolbox is an open-source web application. It consists of three parts:

1. Tools, consisting of educational materials to use during learning activities and assessment;
2. Inspiring practices;
3. A community of Transition Makers. The Transition Makers Toolbox is made by teachers, for teachers.

All tools are developed in co-creation with teachers and all the teachers who have contributed to the Toolbox can be found on the community page as so-called Transition Makers. Furthermore, the body of inspiring practices is intended to grow with many more examples of implementation of the tools from the Toolbox in practice in various educational settings.

All content of the Transition Makers Toolbox is openly available, for teachers worldwide to have access to the educational material and can use this for their education. The material is published under a Creative Commons license.

### 3.1.3. Designing the Tools

In the design of the educational materials – the tools – we used constructive alignment as the fundament of all tools. Constructive alignment is a fundamental principle of education that seeks to create a seamless connection between what students are expected to learn, how they are taught, and how their understanding is assessed (Biggs et al., 2011). This alignment enhances the clarity of educational goals, promotes meaningful learning experiences, and facilitates a more effective and purposeful educational process, therefore significantly impacting the overall quality of education.

Next to constructive alignment, dual coding was an important design choice. Dual coding theory, introduced by Paivio (1971), suggests that combining verbal and visual information enhances learning and retention. In the context of the Toolbox, this principle underscores the integration of textual and visual elements in educational tools to cater to diverse learning preferences, promoting a more comprehensive understanding of the tools for a great diversity of teachers who will use the Toolbox.

The third design aspect was a five-step approach to designing the learning activities. By designing all tools in a similar format, the tools are recognizable and remain clear and concise.

The combination of constructive alignment, dual coding and the five-step approach led to a user-friendly format of the tools. On top of that, each tool can be downloaded in PDF format to use offline in an educational setting.

### 3.2. Co-creating the Tools

The tools were created in co-creation sessions with teachers for two reasons. First, a collaborative approach can contribute significantly to diminishing the so-called "Not-Invented-Here" syndrome among teachers (Burcharth et al., 2014). Co-creation enhances a sense of ownership over the educational materials or methods being developed. This involvement diminishes the perception that ideas need to be created exclusively within their classrooms or departments. In addition, when teachers collaborate with colleagues, they gain exposure to different ideas, methods, and viewpoints which demonstrate the value of incorporating diverse insights. Moreover, co-creation fosters a culture of trust and collaboration among teachers. As they work together to develop educational content, trust in the collective expertise grows. This trust diminishes the hesitancy to adopt external ideas.

The second rationale for embracing co-creation lies in the pivotal role that teachers play in the integration of the IDGs into curricula. Empowering teachers to contribute their educational materials and activities, tailored to address specific facets of inner development, enhances the likelihood of practical implementation in their educational practices. This approach acknowledges the unique expertise and insights of teachers, allowing them to align the content closely with the specific needs and educational context of their students. As a result, the co-created educational materials are more likely to resonate with teachers, fostering a sense of ownership and increasing the probability of effective utilization within a curriculum. This collaborative and personalized approach acknowledges the teacher's role as an active participant in the educational process, fostering a sense of commitment to the integration of the IDGs into the curriculum.

In the year preceding the launch of the Transition Makers Toolbox, 24 teachers from within seven Dutch higher education institutes participated in one of three series of two co-creation sessions. The teachers came from different disciplines – from humanities to natural sciences, and from social to life sciences. Moreover, the teachers came from both universities and universities of applied sciences. Beforehand, teachers were asked to bring an educational activity that addresses an aspect of inner development. During the first session, teachers were asked to explore the IDGs and select an IDG-learning outcome they want the students to achieve through the educational activity. The next step was describing and drawing the essence of the activity, after which the five steps of the learning activity were designed in text and drawings. Teachers worked together in groups of 3 to 4 and there were sharing loops and feedback loops included in this first design session.

Between the first and second sessions, teachers sent a preliminary version of the tool to the peer teachers of their small group and incorporated each other's feedback before sending it to the Toolbox team. The Toolbox team – the authors of this paper – is an expert team experienced in designing inter- and transdisciplinary education and Toolbox design and communication. They also provided feedback and tips to improve the tool before the second session.

In the second co-creation session, teachers had the opportunity to finalize their tools. In many cases, the design of the assessment needed extra attention. The second session also included the possibility to test-run the tool. In that case, one of the teachers tested the tool of another Maker, based only on the information from the Toolbox format. The rest of the teacher group and other

invited participants roleplayed as students. This provided the Maker with valuable feedback for finetuning their instructions for the tool.

After the second co-creation session, the Toolbox team made the final edits to the tools, to make sure the tools are consistent, and adhere to the Toolbox format. This is done in close communication with the Maker, who has the final say before publishing the tool.

### 3.3. Community of Practice

As said, the tools in the Toolbox are only one part of the Transition Makers Toolbox. The Transition Makers Toolbox includes educational material, inspiring practices, and a community of Transition Makers. We aim to have a growing lively community of teachers who are interested in teaching their students to equip themselves to internalize the greater good of the whole in their professional future. Moreover, we aim to create a community of practice that will learn with and from each other how to teach this. Therefore, the web application includes a community page with all the Makers and a page with a growing number of examples of practical applications of the tools in higher education.

To promote the use amongst teachers, we have developed a workshop called ‘Unlock the Potential of the Transition Makers Toolbox’. To encourage adoption among teachers, we have designed a workshop titled 'Unlocking the Potential of the Transition Makers Toolbox.' This workshop aims to provide educators with practical insights and hands-on experience in effectively utilizing the Transition Makers Toolbox in their teaching practices. Through interactive sessions, teachers will gain a comprehensive understanding of the Toolbox's features and learn how to integrate it seamlessly into their educational approaches. This initiative not only facilitates familiarity with the Toolbox but also empowers teachers to maximize its potential for enhancing their learning experiences. This workshop has been given throughout the Netherlands and online for an international context. Therefore, we also started an IDG Dutch Higher Education Hub, as a LinkedIn community, where the makers and anyone interested can share experiences using the Toolbox, as well as other information about transition-making or inner development goals in higher education. Next to the LinkedIn community, the IDG Dutch Higher Education Hub organizes community activities.

## 4. Results

The Transition Makers Toolbox is openly available since June 2023 through the URL https://transitionmakers.nl. On the left of the landing page (Figure 1), the visitor will find the five dimensions of the Inner Development Goals, which contain the tools. Figure 2 shows a web capture of the tool overview page with the IDGs and their corresponding intended learning outcomes, including links to the tools related to that IDG. The next web capture is an example of the learning activity within the tool titled 'Inviting non-human stakeholders’ related to the Inner Development Goal ‘Empathy and Compassion’ (Figure 3). Figure 4 is a web capture of the community page featuring pictures of each Maker. Accompanying these photographs are brief biographies, including their motivation for contributing to a specific IDG. In Table 1 the Toolbox and use of the Toolbox are expressed in numbers.

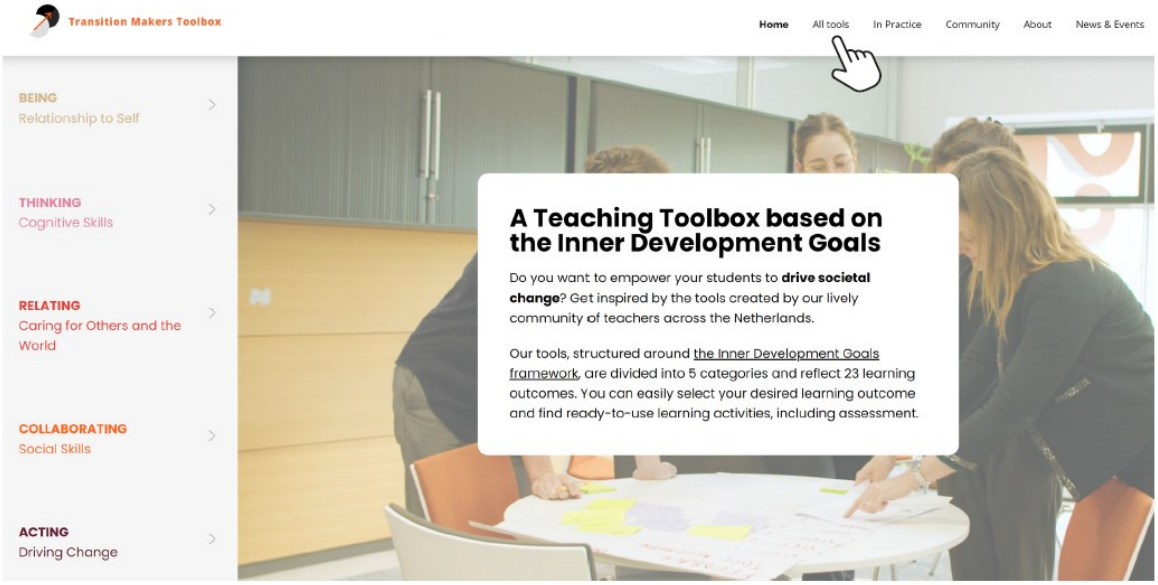
TABLE 1. THE TRANSITION MAKERS TOOLBOX IN NUMBERS

| What | Number | Description |
|---|---|---|
| Tools | 24 | A tool is a package of educational materials consisting of an IDG-ILO related activities, and corresponding assessment method. |
| Co-creation session | 6 | In two-part co-creation sessions, educators work together to collaboratively develop a tool. |
| Transition Makers | 24 | Teachers who have developed a tool in co-creation |
| Try-out sessions of tools | 5 | During a try-out session, a teacher tests a tool from another maker, based solely on the information provided in the Toolbox format. All others participate as students. This process offered the maker valuable feedback for fine-tuning the description of the tool. |
| Workshop "Unlock the Potential of the Toolbox for Your Education" | 7 | This workshop aims to provide educators with practical insights and hands-on experience in effectively utilizing the Transition Makers Toolbox in their teaching practices. |
| Members of the IDG Dutch Higher Education Hub | 275 | Within this community, makers and individuals interested in Inner Development Goals (IDGs) in higher education can exchange their experiences utilizing the Toolbox, along with sharing other pertinent information related to transition making or inner development goals within the higher education context. |
| Unique visitors to the Transition Makers Toolbox website | 56,617 page views / 43,273 unique page views | Since its launch in June 2023, to Sept 2024, the Toolbox has been accessed from every continent. However, the majority of its visitors are situated in northern and western Europe and North America. |
| Downloads of educational materials | 2,718 | Within the Toolbox, users have the option to download entire tools as a PDF file, or assessment formats only. |

Source: own compilation/calculations

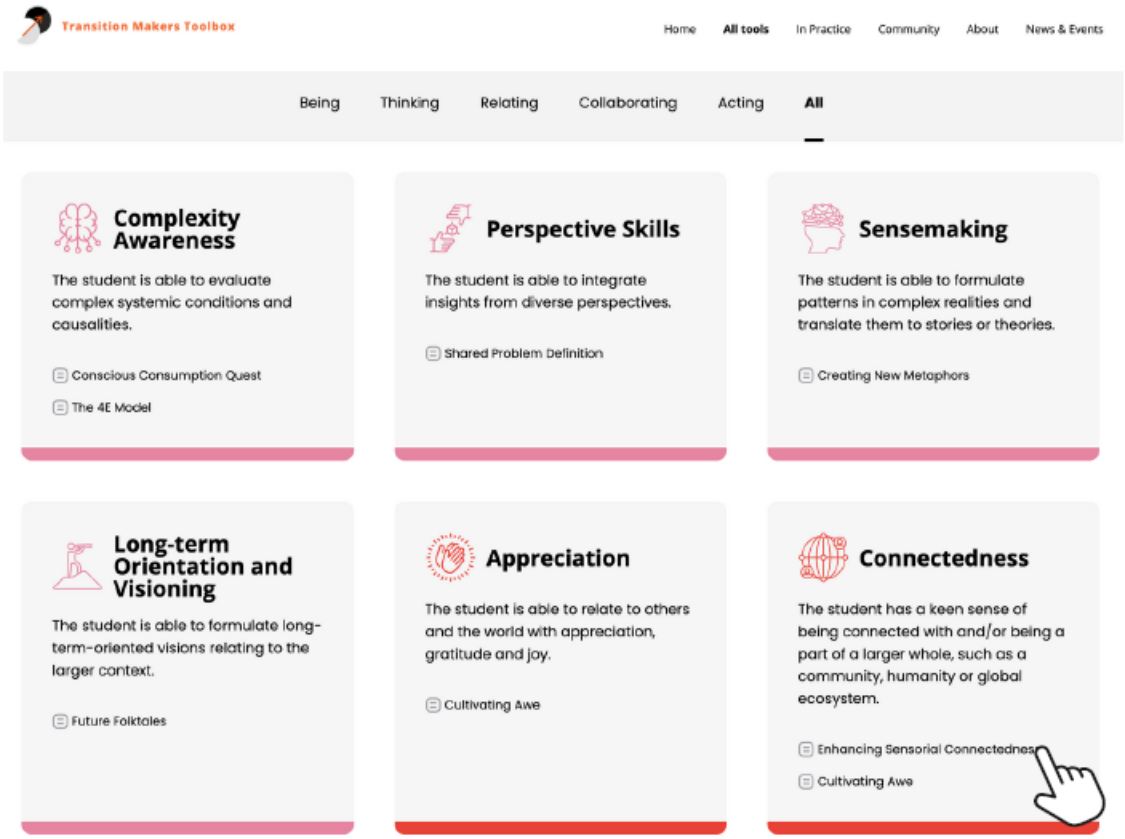
https://doi.org/10.56611/idg.casebook.001.1

FIGURE 1. SCREENSHOT OF THE LANDING PAGE: HOME - TRANSITION MAKERS TOOLBOX




Source: transitionmakers.nl 2024

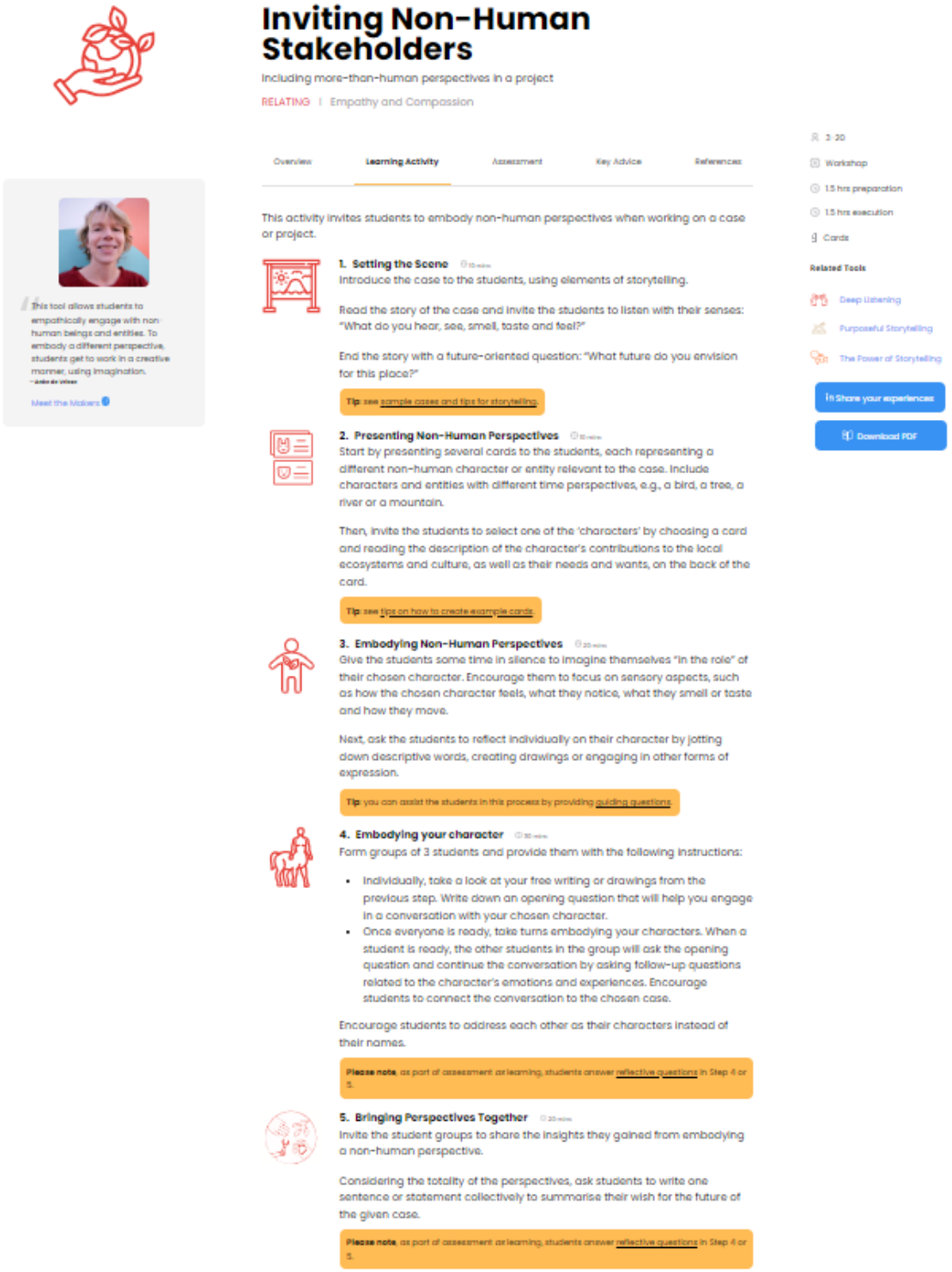
FIGURE 2. TOOL OVERVIEW PAGE: ALL TOOLS - TRANSITION MAKERS TOOLBOX




Source: transitionmakers.nl 2024

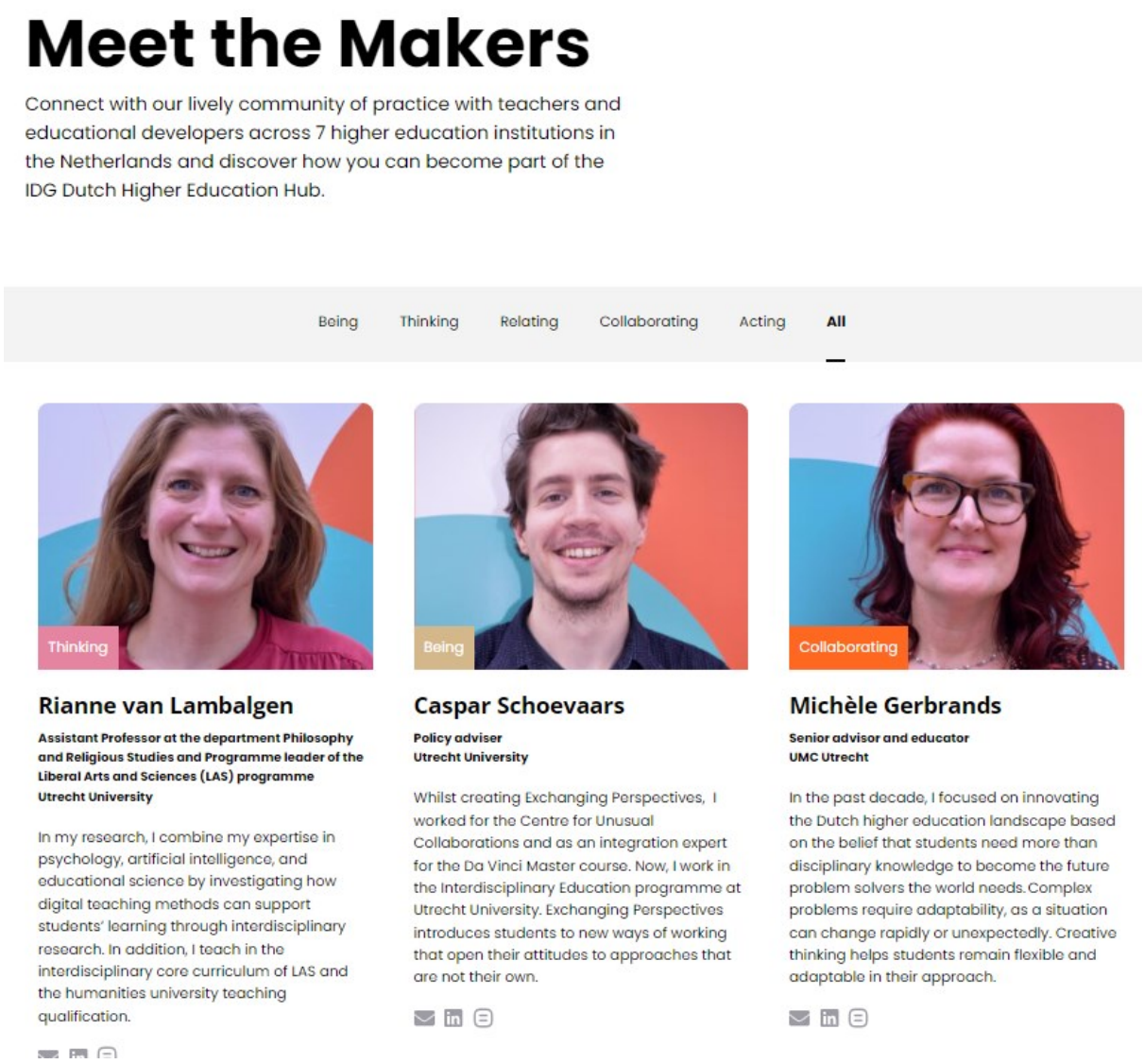
https://doi.org/10.56611/idg.casebook.001.1

FIGURE 3: LEARNING ACTIVITY 'INVITING NON-HUMAN STAKEHOLDERS': INVITING NON-HUMAN STAKEHOLDERS - TRANSITION MAKERS TOOLBOX




Source: transitionmakers.nl 2024

FIGURE 4: COMMUNITY PAGE: COMMUNITY - TRANSITION MAKERS TOOLBOX




Source: transitionmakers.nl 2024

## 5. Discussion

The development and deployment of the Transition Makers Toolbox have garnered significant attention and reinforced our hypothesis regarding the heightened interest and recognized need for integrating the IDGs into higher education curricula.

The active involvement of numerous educators, and the number of people worldwide who have visited the Toolbox and downloaded educational materials, suggests a promising avenue for further integration efforts of the IDGs in higher education curricula based on learning outcome-oriented activities with assessments (Biggs, 1996). This engagement not only facilitates the initial steps towards curriculum modification but also underscores the potential of the Toolbox as a hub for ongoing teacher development and curriculum innovation.

Co-creation played a central role in the development of the tools. The collaboration of educators from diverse higher education institutes exposed participants to diverse methodologies—such

as systems thinking workshops, storytelling techniques, and mindfulness-based reflective exercises—which expanded their teaching repertoire and prompted a shift from traditional lecture formats to more experiential, student-centered approaches. This mutual learning process contributed to the development of a collective knowledge base, fostering a national community of educators who were not only open to external ideas but actively engaged in continuous learning from and with each other (Warhurst, 2006). This contributed to an overall enhancement of the dynamism and adaptability of their teaching methods.

Despite these successes, significant challenges remain—particularly in aligning IDG development with formal assessment systems. Constructive alignment, the process of ensuring coherence between learning outcomes, teaching methods, and assessments, becomes more complex when applied to soft skills such as resilience, compassion, and ethical reflection (Biggs & Tang, 2011, Yan 2020). For instance, educators questioned how to assess a student's growth in empathy without relying on superficial self-reports or overly abstract rubrics. These difficulties are compounded by institutional requirements for standardized, measurable outcomes, which rarely accommodate nuanced forms of personal development.

The underlying assumption of the IDGs is that these qualities can be developed, and therefore progress must be observable and ideally measurable (McNaughton, 2016; Morgan et al., 2021). To support this, the co-creation process emphasized the development of adaptable assessment strategies. These included student-designed rubrics, narrative evaluations, and structured self-reflection assignments. However, many participants still needed expert support to implement constructive alignment effectively. Educational experts proved essential in helping teams clarify learning goals and design assessments that balanced institutional accountability with the holistic intentions of the IDGs.

Further research can be directed to the use of the Transition Maker Toolbox and its impact on integrating IDGs into higher education. Moreover, future research could explore how and in what form the Transition Makers Toolbox aligns with the principles of experiential education, investigating the pedagogical positioning of the Toolbox and informing its further development to enhance its effectiveness as a tool for inner development in higher education settings.

## 6. Conclusion

The integration of the Inner Development Goals into higher education presents considerable challenges, primarily due to the inherent difficulties in designing curriculum and assessment methods that effectively capture soft outcome measures. Nevertheless, the Transition Makers Toolbox exemplifies a practical and stepwise approach to overcoming these hurdles, serving as a beacon of good practice for educators who aim to incorporate the IDGs into their curricula. By providing a structured framework for curriculum development, coupled with the facilitation of professional development through co-creation, the Toolbox paves the way for a more holistic and integrated educational approach that prepares students not only as professionals but as individuals capable of contributing meaningfully to societal transformation. The grassroot approach (starting with the teacher and their teaching practice) of the Toolbox, in combination with the open availability, can be an effective way to shift paradigms.

## References


Anderson, L., & Krathwohl, D. A. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Addison Wesley Longman.

Barnett, R. (2012). Learning for an unknown future. Higher Education Research & Development, 31(1), 65–77. https://doi.org/10.1080/07294360.2012.642841

Biggs, J. (1996). Enhancing teaching through constructive alignment. Higher Education, 32, 347–364. https://doi.org/10.1007/BF00138871

Biggs, J., & Tang, C. (2011). Teaching for quality learning at university: What the student does. Open University Press.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain. David McKay Company.

Bowen, K., Cradock-Henry, N., Koch, F., Patterson, J., Häyhä, T., Vogt, J., & Barbi, F. (2017). Implementing the "Sustainable Development Goals": Towards addressing three key governance challenges—collective action, trade-offs, and accountability. Current Opinion in Environmental Sustainability, 26, 90–96. https://doi.org/10.1016/j.cosust.2017.05.002

Bourn, D. (2018). From 21st century skills to global skills. In Understanding global skills for 21st century professions. Palgrave Macmillan. https://doi.org/10.1007/978-3-319-97655-6_4

Brennan, J., & Naidoo, R. (2008). Higher education and the achievement (and/or prevention) of equity and social justice. Higher Education, 56(3), 287–302. https://doi.org/10.1007/s10734-008-9127-3

Britzman, D. P. (2000). Teacher education in the confusion of our times. Journal of Teacher Education, 51(3), 200–205. https://doi.org/10.1177/0022487100051003007

Burcharth, A., Knudsen, M., & Søndergaard, H. (2014). Neither invented nor shared here: The impact and management of attitudes for the adoption of open innovation practices. Technovation, 34, 149–161. https://doi.org/10.1016/J.TECHNOVATION.2013.11.007

Cardno, C. (2005). Leadership and professional development: The quiet revolution. International Journal of Educational Management, 19(4), 292–306. https://doi.org/10.1108/09513540510599626

Castro, G., Fernández, M., & Colsa, Á. (2021). Unleashing the convergence amid digitalization and sustainability towards pursuing the Sustainable Development Goals (SDGs): A holistic review. Journal of Cleaner Production, 280(1). https://doi.org/10.1016/j.jclepro.2020.122204

Cobo, C. (2013). Skills for innovation: Envisioning an education that prepares for the changing world. Curriculum Journal, 24(1), 67–85. https://doi.org/10.1080/09585176.2012.744330

Gallagher, S. E., & Savage, T. (2023). Challenge-based learning in higher education: An exploratory literature review. Teaching in Higher Education, 28(6), 1135–1157. https://doi.org/10.1080/13562517.2020.1863354

Goleman, D. (1998). What makes a leader? Harvard Business Review, 76(6), 93–102.

Hattie, J., & Timperley, H. (2007). The power of feedback. Review of Educational Research, 77(1), 81–112. https://doi.org/10.3102/003465430298487

Ives, C. D., Schäpke, N., Woiwode, C., & Wamsler, C. (2023). IMAGINE sustainability: Integrated inner-outer transformation in research, education, and practice. Sustainability Science, 18, 2777–2786. https://doi.org/10.1007/s11625-023-01368-3

Jardim, M., Junior, G., & Alves, M. (2017). Values in students of higher education. Creative Education, 8, 1682–1693. https://doi.org/10.4236/ce.2017.810114

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1964). Taxonomy of educational objectives: Handbook II: Affective domain. David McKay Co.

Mahmoudi, S., Jafari, E., Nasrabadi, H., & Liaghatdar, M. (2012). Holistic education: An approach for 21st century. International Education Studies, 5(3), 178–186. https://doi.org/10.5539/ies.v5n3p178

McNaughton, S. M. (2016). Developing pre-requisites for empathy: Increasing awareness of self, the body and the perspectives of others. Teaching in Higher Education, 21(5), 501–515. https://doi.org/10.1080/13562517.2016.1160218

Morgan, K. L., Bell-Huff, C. L., Shaffer, J., & LeDoux, J. M. (2021). Story-driven learning: A pedagogical approach for promoting students' self-awareness and empathy for others. Paper presented at the ASEE Virtual Annual Conference. https://doi.org/10.18260/1-2--37730

Niess, M. (2011). Investigating TPACK: Knowledge growth in teaching with technology. Journal of Educational Computing Research, 44(3), 299–317. https://doi.org/10.2190/EC.44.3.c

Paivio, A. (1971). Imagery and verbal processes. Holt, Rinehart and Winston.

Pöllänen, E., Osika, W., Bojner Horwitz, E., & Wamsler, C. (2023). Education for sustainability: Understanding processes of change across individual, collective, and system levels. Challenges, 14(1), 5. https://doi.org/10.3390/challe14010005

Shove, E., & Walker, G. (2007). Caution! Transitions ahead: Politics, practice, and sustainable transition management. Environment and Planning A, 39(4), 763–770. https://doi.org/10.1068/a39310

Trilling, B., & Fadel, C. (2012). 21st-century skills: Learning for life in our times. John Wiley & Sons.

UNESCO. (2017). Education for sustainable development goals: Learning objectives. UNESCO.

Van den Beemt, A., van de Watering, G., & Bots, M. (2023). Conceptualising variety in challenge-based learning in higher education: The CBL-compass. European Journal of Engineering Education, 48, 24–41. https://doi.org/10.1080/03043797.2022.2078181

Wamsler, C., & Bristow, J. (2022). At the intersection of mind and climate change: Integrating inner dimensions of climate change into policymaking and practice. Climatic Change, 173, 7. https://doi.org/10.1007/s10584-022-03398-9

Warhurst, R. P. (2006). "We really felt part of something": Participatory learning among peers within a university teaching-development community of practice. International Journal for Academic Development, 11, 111–122. https://doi.org/10.1080/13601440600924462

Yan, Z. (2020). Self-assessment in the process of self-regulated learning and its relationship with academic achievement. Assessment & Evaluation in Higher Education, 45, 224–238. https://doi.org/10.1080/02602938.2019.1629390

Zhu, C., Wang, D., Cai, Y., & Engels, N. (2013). What core competencies are related to teachers' innovative teaching? Asia-Pacific Journal of Teacher Education, 41(1), 9–27. https://doi.org/10.1080/1359866X.2012.753984

## Declaration Statements

### Conflict of Interest

The authors report no conflict of interest.

### Funding

The authors received funding for the development of the Toolbox. No additional financial support was received for this article's research, authorship, and/or publication.

This study was funded by:

- EWUU Alliance TU/e, WUR, UU, UMC Utrecht, Utrecht, The Netherlands
- University of Amsterdam, Institute for Interdisciplinary Studies, Amsterdam, The Netherlands
- University of Amsterdam, Teaching & Learning Centre, Amsterdam, The Netherlands

**Data Availability**

No dataset is associated with this work. This proceeds within the open access website: https://transitionmakers.nl/. Shown data in the manuscript are the anonymous analytics of this website, dated 1 March 2024.

**Ethical Statement**

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Ilja Boor who can be contacted by email via p.k.i.boor@uva.nl

https://doi.org/10.56611/idg.casebook.001.2

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

## Bridging Inner Development and Global Challenges by Embedding IDGs in Education: The Case of Nyenrode

**André Nijhof**

Nyenrode Business Universiteit, The Netherlands
ORCID: 0000-0003-4497-0722

**Abstract**

This impact case description addresses the growing need for leaders who possess the inner capacities to navigate complex global challenges, such as those outlined by the UN's Sustainable Development Goals (SDGs). It examines Nyenrode Business University's approach to this challenge, leveraging its pre-existing mission focused on shaping responsible leaders to integrate the Inner Development Goals (IDGs) framework into its educational processes. The purpose of this study is to showcase the rationale, implementation, and initial stages of this integration, highlighting how Nyenrode seeks to equip future leaders with essential inner capacities to address complex global challenges aligned with the SDGs. The study employs a case study approach, examining Nyenrode's strategic initiatives and practical implementation of the IDGs. The methodology is based on curriculum mapping, which systematically analyses the integration of SDGs, Environmental, Social, and Governance (ESG) principles, responsible leadership orientations, and specific IDG competencies across Nyenrode's twelve-degree programs. The case also considers collaborative initiatives, faculty development efforts, and the university's commitment to transformative, reflexive, and experiential learning. The initial findings reveal a multi-faceted approach by Nyenrode, including the translation of its core values into ten competencies aligned with the IDG framework. Curriculum mapping indicates varying levels of SDG and ESG integration across programs, highlighting both strengths and areas for improvement. Furthermore, the university emphasizes systems thinking and reflexive learning methodologies. Nyenrode's experience demonstrates the importance of aligning IDG integration with the institution's core mission, adopting a phased and integrated curriculum design, investing in faculty development, prioritizing reflexive learning, and developing robust Assurance of Learning processes.

***Keywords/key phrases*:** Inner Development Goals (IDGs), Higher Education, Responsible Leaders, Sustainable Development Goals (SDGs), Transformative Education, Curriculum Mapping

https://doi.org/10.56611/idg.casebook.001.2

## 1. Introduction to the Case

The purpose of this impact case description is to illustrate and analyse how Nyenrode Business University (hereafter Nyenrode) integrates the Inner Development Goals (IDGs) in the educational processes (Jordan et al, 2021). It aims to showcase and analyse how Nyenrode is actively responding to the need for leaders equipped with inner capacities to address complex global challenges, aligning with the UN's Sustainable Development Goals (SDGs).

Nyenrode is a special case in point, because its mission is already focused on inner development way before the IDGs were launched. Nyenrode is a private international business university in the Netherlands with a mission to serve society by shaping responsible leaders for a sustainable future. Its core values are Leadership, Entrepreneurship, and Stewardship. Nyenrode distinguishes itself through its commitment to transformative education, aiming to bring about significant changes in individuals' perspectives, beliefs, and behaviours to address societal issues (Mezirow, 1997).

The impact case intends to highlight Nyenrode's commitment to its mission of "serving society by shaping responsible leaders for a sustainable future" by illustrating how the IDGs are a natural extension of this mission and add value to its academic proposition. By outlining the rationale, implementation, and expected outcomes of embedding IDGs into its educational programs, Nyenrode seeks to strengthen its reputation as a pioneer in sustainability and leadership education.

## 2. Challenges to Overcome

However, it is a significant undertaking for any business school, including Nyenrode, to truly shape responsible leaders who can effectively serve society and contribute to a sustainable future. Despite Nyenrode's explicit mission towards this goal, several societal and internal challenges make it difficult to fully live up to this aspiration.

1. **Dominance of the Neoliberal Paradigm:** Contemporary society is largely influenced by a Dominant Social Paradigm (DSP) rooted in neoclassical economics (Csillag et al., 2022). This paradigm often prioritizes self-interest, continuous economic growth driven by hyper-consumerism, technological optimism, and private property accumulation (Kilbourne et al, 2002). This pervasive belief structure can lead students to see their role primarily through a "consumption prism," potentially reinforcing a sense of disempowerment regarding complex sustainability challenges. Achieving the SDGs requires more than just policy and technical solutions; it demands leaders with self-awareness and systemic thinking (Akrivou & Bradbury-Huang, 2015). The ingrained focus on economic growth can overshadow the need for a radical rethinking of business models and societal values necessary for true sustainability (Chevrollier et al, 2025). This makes it challenging for Nyenrode to educate alternative, more responsible perspectives when students are constantly exposed to a contrasting dominant logic.

2. **Complexity of Sustainability Transitions**: Sustainability transitions are inherently long-term and multi-dimensional, requiring shifts from unsustainable to sustainable practices (Jacobson & Wilensky, 2006). Addressing

   interconnected challenges like climate change, inequality, and resource depletion within complex socio-economic systems involving numerous stakeholders with conflicting

interests is a monumental task (Nijhof et al., 2022). Business education often overemphasizes niche-level innovations without adequately addressing broader socio-technical regimes and landscape pressures (Loorbach & Wittmayer, 2024). Equipping students to navigate this multifaceted complexity and become "institutional active agents in sustainability transitions" demands a curriculum that goes beyond traditional business topics and incorporates systems thinking and an understanding of different institutional logics (Snelson-Powell et al, 2016).

3. **Measuring the Impact of Responsible Leadership Education**: The conceptual nature of the IDGs might present an implementation hurdle (Wamsler, 2020). The IDGs are not a checklist but rather a framework to start a conversation about the inner dimensions of sustainability. Translating these somewhat abstract concepts into concrete learning objectives, curriculum content, and assessment criteria that are relevant across diverse business disciplines could be difficult (Shtaltovna, 2021). Balancing the "highly systemic and deeply personal" aspects of sustainability transitions within a business school context focused on organizational development and management requires careful consideration (Snelson-Powell et al, 2016). Although crucial, there is inherent difficulty in measuring and ensuring the long-term impact of responsible leadership development.

Overcoming these challenges requires a continuous, adaptive, and deeply embedded commitment across all levels of the institution. Nyenrode, like many established business schools, has a history rooted in traditional business education. However, around 2010 Nyenrode made the strategic decision to focus on transformative education and added stewardship as a core value next to leadership and entrepreneurship. The explicit adoption of "transformative education" to foster critical thinking and action for positive change requires a significant shift in pedagogical approaches and curriculum content (Heiskanen et al, 2016). Later on, Nyenrode adopted the SDGs and became a signatory of the UN Principles for Responsible Management Education (UN PRME). The implementation of transformative education is a long-term process (Heiskanen et al, 2016). Therefore, the integration of IDGs can be seen as a timely strategy in this transformation, moving beyond purely functional business knowledge to cultivate the inner capacities needed for responsible action.

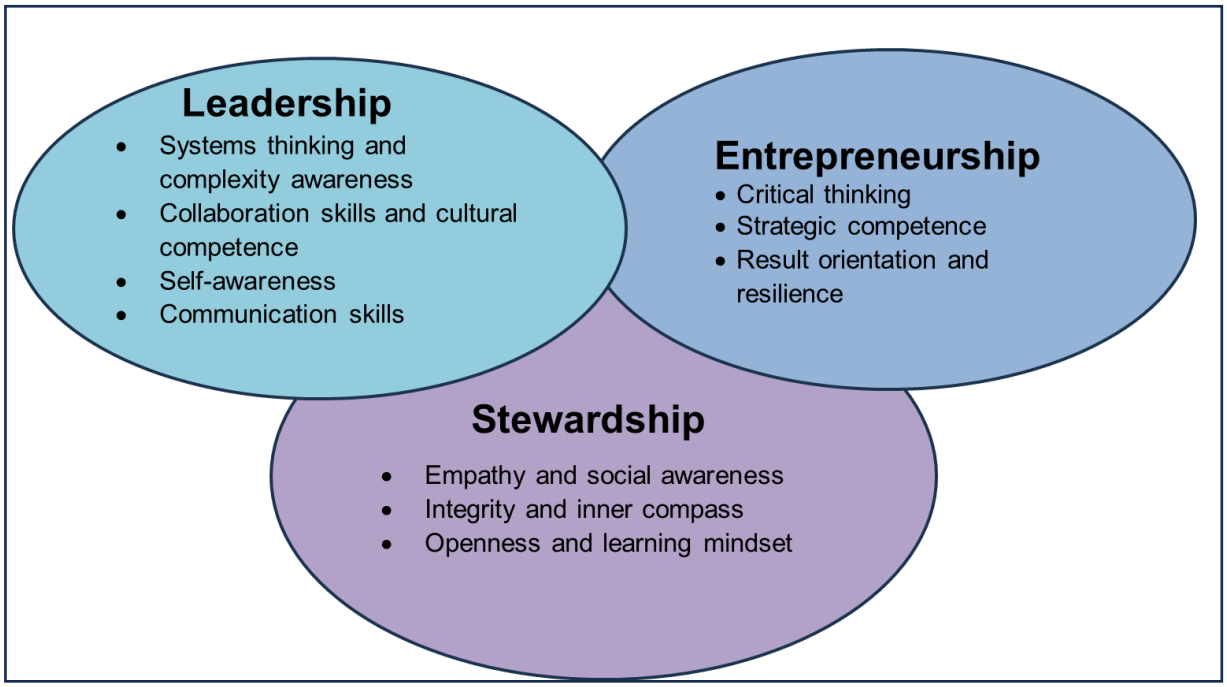
## 3. Methodology Based on Curriculum Mapping

The initiation of the IDG initiative at Nyenrode stemmed from a recognition that achieving the SDGs requires more than just policy and technical solutions; it demands leaders who are self-aware, empathetic, and capable of systemic thinking (Sterling, 2010). The IDGs framework, identifying five key dimensions of inner development—Being, Thinking, Relating, Collaborating, and Acting—provided a structured approach to cultivate these essential inner capacities (Jordan et al, 2021). This recognition aligns with the broader understanding in academic literature that business schools play a pivotal role in sustainability transitions by shaping business leaders capable of managing the complexity of these transitions (Lozano et al., 2015).

The methodology to integrate the IDGs in the educational programs of Nyenrode started with the translation of the core values of Leadership, Entrepreneurship, and Stewardship into ten competencies. In a pilot with teachers and students, we also tried to work with all 23 competencies as they are expressed in the IDG framework. However, this created resistance because it was hard to see the bigger picture, and results overlapped between different

competencies. Even bringing the 23 competences down to a set of 12 resulted in resistance. That's why we agreed upon ten competences deemed necessary for responsible leaders (see Figure 1). In this selection, we used our definition of the three core values of Nyenrode, relevant literature, and the Inner Development Goals (IDGs) framework (Shtaltovna, 2021; Boyatzis, 2008, Jacobson & Wilensky, 2006; Crosta et al., 2023). To measure the development of these ten competencies, Nyenrode employs a curriculum mapping process.

FIGURE 1. LINK BETWEEN CORE VALUES OF NYENRODE AND SELECTED COMPETENCES



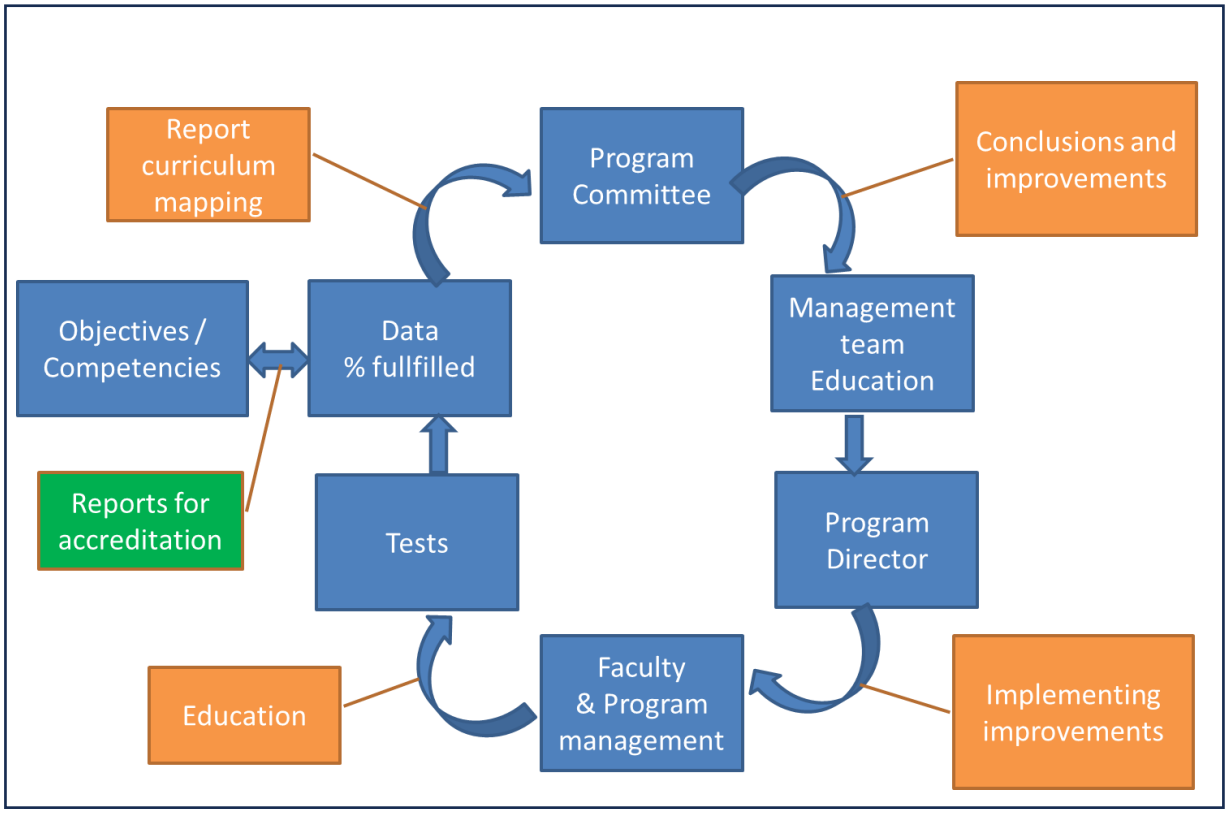

Source: own compilation

The curriculum mapping at Nyenrode Business University is a systematic approach used to analyse the integration of various key concepts and frameworks within its degree programs. The primary goal of this process is to gain an overview of how the curriculum addresses important themes such as the UN's Sustainable Development Goals (SDGs), Environmental, Social, and Governance (ESG) principles, responsible leadership, and the development of specific IDG competencies. This mapping helps Nyenrode ensure that its educational offerings align with its mission of "serving society by shaping responsible leaders for a sustainable future".

The approach to curriculum mapping involves analysing course outlines or syllabi for each course in a curriculum and identifying explicit mentions or implicit connections to the targeted frameworks and concepts. This is done separately for each of the 11-degree programs of Nyenrode. While some courses might address these themes indirectly, the emphasis in the

mapping process is on explicit references to enhance clarity and facilitate measurement. This information is then used to inform discussions within program committees and to suggest improvement points that can be implemented by program directors and faculty members. This process is visualised in Figure 2.

FIGURE 2. OVERVIEW OF THE QUALITY IMPROVEMENT PROCESS-BASED ON THE CURRICULUM MAPPING




Source: own compilation

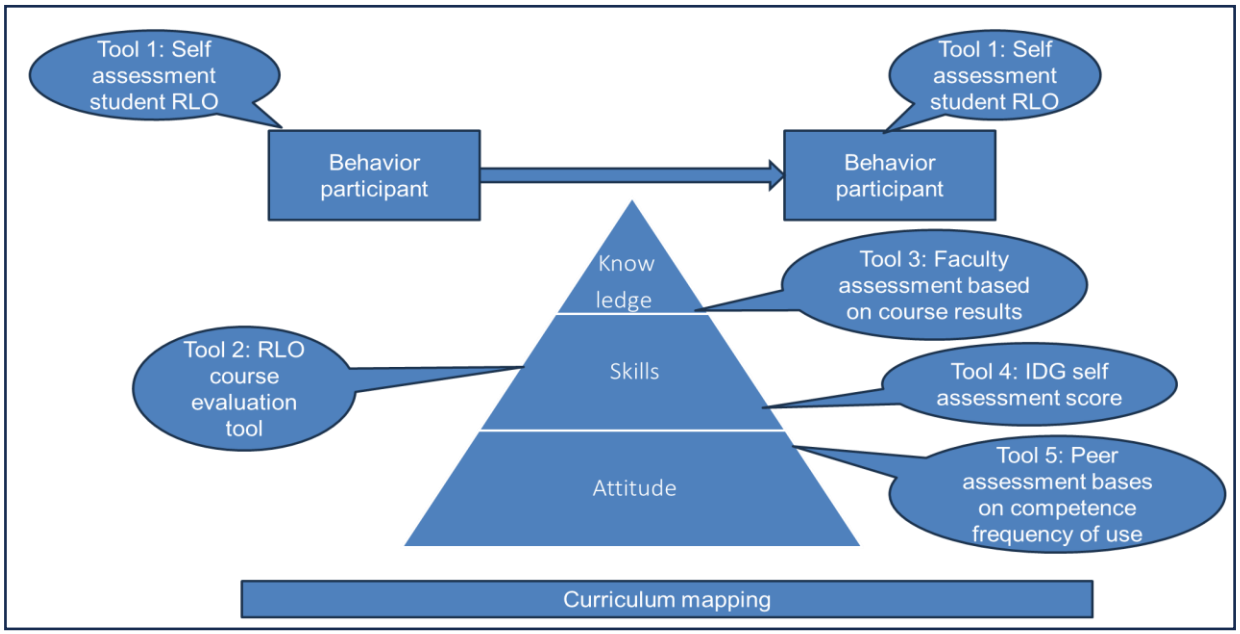
Nyenrode's Assurance of Learning (AoL) process is designed to foster the development of responsible leaders, with a particular focus on the "Integrator" Responsible Leadership Orientation (RLO) (Pless et al, 2012). The AoL process measures learners' values related to stakeholder accountability and the breadth of their stakeholder focus. Based on a broad literature review, a PhD student at Nyenrode developed a Stakeholder Consideration Scale to track the evolution of the responsible leadership orientation of students at the beginning and end of programs.

The curriculum mapping is a key component of Nyenrode's Assurance of Learning (AoL) process. It provides an overview of where the selected ten competencies and Responsible Leadership Orientations (RLOs) are included in the courses. The AoL process uses various measurement instruments to track the development of RLOs and competencies, and the curriculum mapping helps identify the courses where these measurements can be most effectively applied.

The AoL process includes several measurement points that indicate changes in student skills (see Figure 3). For RLO, the measurement focuses on a self-assessment by students, with a norm that 80% of learners should indicate an improvement in relation to the Integrator RLO between the start and end of a program. For competence development, the AoL process uses three methods based on self-assessment, faculty assessment, and peer assessment. For example, the peer assessment is based on the perception of employers, colleagues, or other students, with

a with a norm that 80% of respondents perceive that learners apply these competencies more often by achieving a score of 4 or higher on a 5-point Likert scale for "Frequency of Use" (Boyatzis, 2008).

FIGURE 3. COMBINATION OF TOOLS TO MEASURE STUDENT PROGRESS OF INNER DEVELOPMENT




Source: own compilation

The data collected through these measurement instruments is compiled into an annual overview per program, which is reviewed by the Program Committee to evaluate the level of competence and identify areas for improvement. The curriculum mapping provides a foundation for this analysis because it shows whether all competencies are covered within the programs. Faculty members also engage in discussions to share best practices in developing and measuring specific competencies.

The implementation of this methodology takes years. For Nyenrode, the academic year 2023/2024 was used for the pilots and design of this methodology, the academic year 2024/2025 was used for the curriculum mapping and discussion in program committees and the year 2025/2026 is used to add the data on student development based on the five distinct tools linked to their competences and responsible management orientation (see Figure 3). Ultimately, the curriculum mapping serves as a crucial process for Nyenrode to ensure the quality and relevance of its education and to continuously strive towards shaping responsible leaders for a sustainable future.

## 4. Findings and Analysis

Nyenrode Business University has explicitly embraced the mission of "serving society by shaping responsible leaders for a sustainable future". However, the path to truly shaping responsible leaders is fraught with challenges, both within the broader societal context and specific to Nyenrode's history and structure. Analysing the results so far of embedding the IDGs in relation to the three previously mentioned challenges reveals both progress and persistent difficulties. Therefore, this section first presents some findings in relation to institutional

reforms to overcome the dominance of the Neolibaral Paradigm. Section 4.2 focuses on how measuring the impact of responsible leadership education is embedded in Nyenrode's choice for transformative education. Next, the competence of systems thinking and complexity awareness is explored to deal with the complexity of sustainability transition. Lastly, some remaining challenges are indicated to explore next steps for the development of Nyenrode.

### 4.1. Institutional Reforms at Nyenrode to Overcome the Dominance of the Neoliberal Paradigm

The prevailing dominant social paradigm (DSP), often rooted in neoclassical economics and prioritizing self-interest and economic growth, presents a significant obstacle to fostering responsible leadership focused on sustainability. The integration of IDGs directly attempts to counter this by emphasizing inner capacities such as mindfulness and self-awareness ("Being"), critical and innovative thinking ("Thinking"), empathy and interpersonal skills ("Relating"), co-creation and inclusive leadership ("Collaborating"), and courage and resilience ("Acting"). These inner dimensions are seen as crucial for leaders to move beyond purely economic considerations and address complex global challenges effectively (Loorbach & Wittmayer, 2024).

The founders of the IDG initiative emphasize that achieving the Sustainable Development Goals (SDGs) requires more than just technical solutions; it demands inner shifts in culture and individuals (Jordan et al, 2021). By integrating IDGs, Nyenrode aims to cultivate a mindset in students that acknowledges the interconnectedness of inner development and outer change. This aligns with the principles of transformative learning theory (Mezirow, 1991), which emphasizes the need for deep shifts in perspectives to critically reflect on dominant paradigms (Greenwood, 2012).

The curriculum mapping indicates a varied level of SDG integration across programs, suggesting that while sustainability is being addressed, the depth and consistency needed to truly challenge the dominant social paradigm might still be developing (see Table 1). The introduction of the new Impact MBA, with its reduced international travel for a lower carbon footprint, signifies a step towards embodying sustainability principles and potentially attracting students more aligned with post-growth thinking.

TABLE 1. RESULTS OF SDG AND ESG SCORE FOR EACH OF THE DEGREE PROGRAMS

| Degree program | % of SDGs | Main SDGs | % of ESG |
|---|---|---|---|
| **New MBA program** | 76% | SDG 1, 2, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17 | 71% |
| **Executive Master Finance** | 65% | SDG 8, 12, 13, 16 and 17 | 71% |
| **Master Management** | 65% | SDG 1, 4, 7, 8, 9, 10, 11, 13 and 17 | 79% |
| **Modular MBA** | 41% | SDG 4, 8, 9, 11, 12, 16 and 17 | 50% |
| **Post master Accountancy** | 41% | SDG 4, 8, 9, 12, 16 and 17 | 43% |
| **Bachelor in Management** | 35% | SDG 8, 9, 10, 12, 16 and 17 | 51% |
| **Master Controlling** | 35% | SDG 4, 8, 9, 12, 16 and 17 | 50% |
| **Master Law** | 35% | SDG 1, 4, 8, 9, 16 and 17 | 43% |

| | | | |
|---|---|---|---|
| **Bachelor Accountancy** | 35% | SDG 4, 8, 9, 12 and 16 | 43% |
| **Executive MBA** | 24% | SDG 8, 9, 12 and 17 | 21% |
| **Master Accountancy** | 18% | SDG 8, 12 and 16 | 43% |

Source: own compilation

Table 1 shows quite some variance in the percentage of integration of the SDG concepts in the curricula of the distinct programs. It is important to keep in mind that these percentages are based on the full text of the course outline; therefore, additional mentioning of SDGs in the lectures is not presented in this table. These results were used as a mirror to discuss each program committee. The results are that for some degree programs, there are good reasons why a specific SDG is not integrated into the curriculum. However, for most degree programs, improvement points were set to strengthen the integration of the SDGs.

Where the SDGs relate to the content of sustainability transitions, the ESG concepts relate to process concepts like materiality assessments, stakeholder dialogue, and sustainability reporting. It is interesting to see in Table 1 that, in general, a high score in relation to the SDGs corresponds with a high score for ESG. However, for example the Master in Accountancy made a clear decision to focus more on the ESG process concepts and dedicate less time to the developments in relation to the SDGs.

Furthermore, specific program changes also point to enhanced student learning. The redesigned Pre-Master Accountancy program emphasizes blended learning, formative feedback, and adaptive instruction, aiming to provide students with deeper insights into their learning progress. Also, the development and rollout of the new Impact MBA, focusing on sustainability transitions, is a concrete example of institutional transformation in the educational offerings of Nyenrode.

Student experiences also highlight the positive impact on their skills, with Bachelor of Science in Business Administration students appreciating the hands-on approach, including practical simulations on managing a business and persuading investors. Alumni also report increased confidence and personal and professional growth after their time at Nyenrode. Moreover, Master in Management students have reported greater international career opportunities and improved value for money.

Nyenrode actively involves faculty in the integration of new educational approaches and the quality assurance of its programs. Faculty members are also crucial to the AoL process, as faculty members discuss, refine, and align rubrics to measure the competence levels of participants in their courses. Furthermore, faculty representatives actively participate in program committees, discussing the results of the AoL process and suggesting improvement points. They are also directly involved in implementing these improvements, depending on their nature. To foster learning and sharing across programs, faculty members are invited to discuss how they develop specific competencies and the rubrics they use, which are then documented in Nyenrode Impact Cases. The fact that this process started with the competence "Systems Thinking and Complexity Awareness" and is expanding to others indicates active faculty engagement in enhancing the curriculum (see previous section).

Nyenrode also encourages faculty to become thought leaders through research on transformative education, with many faculty members involved in this area and developing academic knowledge. The increasing focus on research with societal impact, guided by collaboration areas like "Entrepreneurship & Responsible Leadership" and including research on "Degrowth and Post-Growth," showcases a strategic shift in research priorities.

The university's journey towards B Corp certification, marked by the formal recognition as a B Corp in May 2025, demonstrates a commitment to embedding responsible business practices within the institution itself. Furthermore, the undertaking of stakeholder dialogues for the double materiality assessment in preparation for CSRD reporting shows a proactive approach to understanding and addressing its broader impact. The embedding of diversity and inclusion in the university's strategy, with concrete actions being taken across departments, indicates a commitment to fostering a more inclusive environment. Finally, the launch of B Corp Impact Teams, a multidisciplinary approach to improve Nyenrode's operations from a sustainability perspective, further demonstrates faculty engagement in institutional transformation.

A new development in 2024 is Nyenrode's participation in a university coalition for student inner development. This initiative, which invites Nyenrode to become a co-founder alongside other international universities like Lund University and ESADE, focuses on co-creating and implementing scalable, science-based solutions for student inner development embedded within the curricula. This collaborative effort allows Nyenrode to bundle resources and share knowledge with pioneers in the field, aiming for systemic change in higher education. The coalition emphasizes developing inner-curricular solutions as scalable and affordable products, supporting curriculum reform processes, and executing impact case studies.

### 4.2. Transformative Education and Measuring the Impact of Responsible Leadership Education

Demonstrating the tangible impact of responsible leadership education on students' behaviour and their ability to drive change remains a significant challenge. Nyenrode has developed the Stakeholder Consideration Scale to measure changes in responsible leadership orientation. However, the quantitative phase of this measurement tool is just beginning, so comprehensive results are not yet available.

Nyenrode is taking a proactive stance on embedding IDG principles into its educational programs, recognizing that these inner capacities are crucial for addressing complex global challenges and achieving the Sustainable Development Goals (SDGs). The university aims to go beyond traditional formative education, which focuses on absorbing knowledge, and embrace transformative education that brings about significant changes in individuals' perspectives, beliefs, and behaviours.

The practical implementation of IDGs in the curriculum involves embedding IDG principles into existing leadership and sustainability courses, including the Impact MBA, Executive programs, and Personal Development programs (see Table 2). This approach leverages existing structures and themes within the curriculum, ensuring that IDGs are not treated as a separate add-on but are interwoven with core learning objectives (Patterson et al., 2017).

TABLE 2. INTEGRATION OF THE SELECTED IDGS IN THE DEGREE PROGRAMS OF NYENRODE

| IDG competence | % embedded | Main degree programs |
|---|---|---|
| **Leadership** | | |
| **Systems thinking and complexity awareness** | 67% | Accountancy, Management, Finance |
| **Collaboration skills and cultural competence** | 91% | Accountancy, Controlling, Management, Finance, Law |
| **Self-awareness** | 91% | Accountancy, Controlling, Management, Finance, Law |
| **Communication skills** | 100% | Accountancy, Controlling, Management, Finance, Law |
| **Entrepreneurship** | | |
| **Critical thinking** | 91% | Accountancy, Controlling, Management, Finance, Law |
| **Strategic competence** | 82% | Accountancy, Controlling, Management, Finance, Law |
| **Result orientation and resilience** | 91% | Accountancy, Controlling, Management, Finance, Law |
| **Stewardship** | | |
| **Empathy and social awareness** | 27% | Management |
| **Integrity and inner compass** | 82% | Accountancy, Controlling, Management, Finance |
| **Openness and learning mindset** | 82% | Accountancy, Management, Finance, Law |

Source: own compilation

Table 2 indicates that most competences have a rather high level of integration in the different degree programs of Nyenrode. However, Systems Thinking and Complexity Awareness (62%) and Empathy and Social Awareness (27%) lag behind. This resulted in a joint effort to explore how we can improve the embeddedness of these competences in the curricula of the distinct degree programs of Nyenrode. That is also why the joint faculty discussion about these competences started with "Systems Thinking and Complexity Awareness" (see next section).

Furthermore, to implement transformative education, Nyenrode Business University integrates both reflexive and experiential learning across its educational processes. Reflexive learning approaches aim to make the ethical and normative dimensions of business explicit in order to stimulate students to develop a moral compass that guides decision-making (Wamsler, 2020). The university provides students with tools for self-assessment and reflection on their personal development. For instance, every program has a Personal Leadership and Development Journey

(PLDJ) as a reflexive practice. This encourages students to develop a clear understanding of their own thoughts, feelings, and desires and to engage in reflective contact.

Reflective education at Nyenrode encourages students to critically assess their values, assumptions, and actions. Faculty members are encouraged to support this by creating space for reflection, encouraging dialogue, critically reappraising established concepts, and exploring different ideologies (Chevrollier et al, 2025).

Also, the integration of the IDGs framework, with its "Being" dimension focused on cultivating mindfulness and self-awareness, directly promotes reflexive practices. By focusing on understanding "who I am" and "what is important for me", students are encouraged to engage in introspection.

The Assurance of Learning (AoL) process at Nyenrode utilizes a multi-faceted approach to assess the development of the ten responsible leadership competences. This includes curriculum mapping to identify where competences are addressed, the inclusion of a "Responsible Leadership Orientation" question in course evaluations, competence grading by teachers using rubrics, and peer-assessment of competence frequency of use (see Figure 3). The annual overviews of competence development at the program level allow for monitoring progress and identifying areas for improvement. The development of Impact Cases also serves as a way to capture and share learnings about competence development. However, empirical research is still needed to fully assess the actual impact of business education on students' agency to reshape business landscapes for sustainability. While Nyenrode is taking significant steps to measure and ensure the development of responsible leadership capacities, the long-term impact on graduates' actions in the world is inherently complex to quantify.

Also, experiential learning is a crucial approach to transformative education. Experiential learning allows learners to reconsider preset ideas, and learners become transformed (Kolb, 1984). In doing so, experiential learning provides opportunities for students to engage with real-world sustainability challenges with all their uncertainty and complexity (Baker et al., 2002). This triggers competence development like resilience in the face of uncertainty, taking initiative, and developing courage to become a change agent for sustainability (Mezirow, 2003; Taylor, 2007).

Nyenrode embeds experiential learning by utilizing case studies, simulations, and real-world projects in many programs, enabling students to apply their knowledge and skills to address complex challenges, including sustainability issues. Nyenrode emphasizes translating theoretical insights into practical applications. This hands-on approach allows students to learn through experience and develop crucial action skills such as initiative, confidence, decision-making, and resilience. Furthermore, the part-time Bachelor of Science in Accountancy program is often employer-funded and integrates practical skills alongside theoretical knowledge. Nyenrode's accountancy programs benefit from instructors with real-world experience and a dedicated internship office, further bridging theory and practice.

By combining these reflexive and experiential learning methods, Nyenrode aims to equip students with not only the theoretical knowledge but also the self-awareness, critical thinking skills, and practical experience necessary to become responsible leaders capable of driving systemic change for a sustainable future. The emphasis on both inner development through reflection and outer application through experience is central to Nyenrode's pedagogical

philosophy. Next, the findings are presented in relation to one of the IDG competencies: systems thinking.

In conclusion, Nyenrode has made significant strides in embedding the Inner Development Goals into its educational framework as a means of shaping responsible leaders. This initiative directly addresses the limitations of the traditional neoliberal paradigm and aims to equip students with the inner capacities needed to navigate the complexities of sustainability transitions. The university is also actively working to balance traditional business education with transformative goals through curriculum innovation and a focus on key responsible leadership competencies. The ongoing collaboration with faculty, students, and global partners will be essential for realizing the full potential of IDG integration in shaping responsible leaders for a sustainable future.

### 4.3. Systems Thinking to Deal with the Complexity of Sustainability Transitions

Sustainability transitions are characterized as long-term and multi-dimensional, demanding leaders capable of navigating intricate socio-economic systems. The IDG framework aims to equip leaders with the systemic thinking ("Thinking") and collaborative skills ("Collaborating") necessary to address these complexities. Business Schools can transform students into active institutional agents in sustainability transitions (Loorbach & Wittmayer, 2024). Nyenrode's efforts to train faculty in IDG methodologies and establish an interdisciplinary task force suggest a commitment to embedding these perspectives in teaching.

The curriculum mapping report recommends deeper engagement with specific SDG targets and the potential introduction of dedicated sustainability courses, indicating an ongoing need to enhance students' understanding of the intricacies of sustainability challenges. The emphasis on "Systems Thinking and Complexity Awareness" as one of the ten key competences for responsible leaders at Nyenrode demonstrates an acknowledgment of this challenge (see Table 2). Furthermore, the development of Impact Cases aims to share faculty learning on competence development, which could contribute to a more nuanced understanding of sustainability transitions. Using case studies could be a valuable pedagogical tool for engaging students with the "messiness" of sustainability issues, fostering critical thinking and dialogue.

Nyenrode Business University employs several approaches to stimulate systems thinking in its educational processes to address the complexities of sustainability and responsible leadership. Firstly, Nyenrode explicitly identifies "Systems Thinking and Complexity Awareness" as a core leadership competence that all graduates should possess. This commitment is embedded within the university's Assurance of Learning (AoL) process. The curriculum mapping process identifies where systems thinking is addressed, allowing the university to understand the current level of integration and identify areas for improvement.

Secondly, some programs feature dedicated courses or modules focused on systemic perspectives. For example, the Modular MBA program includes a "Sustainability and Systemic Change" course that plays a crucial role in covering several Sustainable Development Goals (SDGs). This dedicated content provides students with a foundational understanding of systems and their dynamics in the context of sustainability challenges (Jacobson & Wilensky, 2006).

Thirdly, Nyenrode fosters the development of competences through faculty collaboration and knowledge sharing. This is first of all done for the competence Systems Thinking and

Complexity Awareness in the first months of 2025. In two face-to-face sessions, faculty members across different programs were invited to discuss how they develop specific competencies like "Systems Thinking and Complexity Awareness" with their students and the rubrics they use for assessment. These discussions aim to create "Nyenrode Impact Cases" to document and share effective teaching practices for these key competencies. This collaborative approach ensures a more consistent and potentially innovative integration of systems thinking methodologies across the university.

### 4.4. Remaining Challenges

One significant challenge lies in systematically integrating the IDGs across all existing programs. As mentioned in a previous section, the current integration of Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) concepts varies considerably across Nyenrode's 11-degree programs. Some programs show a strong commitment, while others have a more limited or indirect focus. This suggests that achieving a consistent and comprehensive embedding of IDGs, similar to the desired deeper integration of SDGs, will require significant effort. Modifying established curricula and course outlines, as most Nyenrode programs were designed some time ago, can be a complex and time-consuming process.

Faculty development and buy-in present another key challenge. Training faculty members to effectively incorporate IDG methodologies into their teaching is crucial. This requires not only educating them about the IDG framework but also equipping them with the pedagogical approaches needed to foster these inner capacities in students. Business school curricula often have a narrow focus, and shifting towards a more holistic approach that includes personal transformation requires a change in mindset and teaching methodologies (Heiskanen et al, 2016). Convincing all faculty members of the value and relevance of inner development competences and securing their active participation in this transformative education could be demanding. The current Assurance of Learning (AoL) process is faculty-driven, implying that the success of IDG integration will heavily depend on their engagement and willingness to adapt their teaching and assessment methods.

Finally, resource allocation and prioritization could pose a challenge. Implementing a university-wide initiative like IDG integration requires dedicating time, funding, and personnel. This needs to be balanced with other strategic priorities of Nyenrode, such as pursuing AACSB accreditation, maintaining its position in financial rankings, and implementing ESG principles across education and operations. Nyenrode has various strategic initiatives, and the integration of IDGs will need to be strategically aligned and resourced within this broader context.

## 5. Conclusion

In conclusion, this impact case description has sought to illustrate and analyse Nyenrode Business University's ongoing journey of integrating the Inner Development Goals (IDGs) into its educational processes. The primary aim of this undertaking is to equip future leaders with the essential inner capacities required to effectively address the complex and interconnected global challenges outlined by the UN's Sustainable Development Goals (SDGs). Driven by its pre-existing mission to "serve society by shaping responsible leaders for a sustainable future",

Nyenrode views the IDG framework, with its five key dimensions of Being, Thinking, Relating, Collaborating, and Acting, as a natural and value-adding extension of its academic proposition.

The initial stages of implementation have involved a multi-faceted approach. Nyenrode has translated its core values of Leadership, Entrepreneurship, and Stewardship into ten key responsible leadership competencies, aligning them with both relevant literature and the IDG framework. A systematic curriculum mapping process has been crucial in analysing the integration of SDGs, ESG principles, responsible leadership orientations, and specific IDG competencies across its twelve-degree programs. This process has revealed varying levels of commitment and integration across different programs, highlighting both strengths and areas for improvement. To further advance the initiative, Nyenrode has proactively joined a university coalition for student inner development, fostering collaboration and knowledge sharing with other pioneering international institutions. Practical implementation within the curriculum includes embedding IDG principles into existing leadership and sustainability courses, alongside plans for specialized workshops and electives. Furthermore, Nyenrode is actively stimulating systems thinking through dedicated competencies, courses, faculty collaboration, and the "Thinking" dimension of the IDGs. Reflexive and experiential learning are also central to Nyenrode's pedagogical philosophy.

The practical and managerial implications of Nyenrode's experience offer valuable lessons for other Higher Education Institutions seeking to cultivate responsible leaders for a sustainable future. Firstly, clearly aligning the integration of frameworks like the IDGs with the institution's core mission and values is paramount for establishing a strong rationale and securing broad support. Nyenrode's pre-existing focus on inner development served as a significant advantage.

Secondly, adopting a phased and integrated approach to curriculum design, embedding IDG principles within existing courses while offering opportunities for deeper specialization, can ensure that inner development is not perceived as an add-on but rather as a fundamental aspect of leadership education.

The success of this integration is heavily reliant on investing in faculty development and providing them with the necessary training and resources to effectively incorporate IDG methodologies into their teaching. Furthermore, prioritizing experiential and reflexive learning methodologies is crucial for enabling students to connect inner development with practical action and foster self-awareness. Developing robust Assurance of Learning processes, such as Nyenrode's curriculum mapping and multi-faceted measurement approach, allows institutions to track progress and identify areas for improvement in the development of both competencies and responsible leadership orientations. Finally, actively engaging in interdisciplinary and cross-institutional collaborations, as demonstrated by Nyenrode's participation in the university coalition, can accelerate learning, pool resources, and drive systemic change within higher education. The broad impact of such initiatives extends to equipping graduates with the capacities to navigate complex sustainability transitions, challenge dominant neoliberal paradigms, and ultimately contribute to a more just and sustainable society by fostering a new generation of responsible leaders.

Reflecting on the research process, the author acknowledges a positionality rooted in an interest in transformative education and sustainability within business schools. Potential biases might include a predisposition towards the value and importance of inner development in leadership

education, informed by existing literature on responsible leadership and sustainability transitions. The researcher's influence on the research process primarily involved selecting the focus of the case study and interpreting the provided documentation through the lens of existing theoretical frameworks on transformative learning and sustainability transitions. While striving for an objective analysis, these inherent aspects of the researcher's background and perspective inevitably shape the framing and interpretation of the case. Continued critical reflection and engagement with diverse perspectives would further enrich the understanding of this ongoing institutional transformation.

## References


Akrivou, K., & Bradbury-Huang, H. (2015). Educating integrated catalysts: Transforming business schools toward ethics and sustainability. *Academy of Management Learning and Education, 14*, 222–240. https://doi.org/10.5465/amle.2012.0343

Baker, A. C., Jensen, P. J., & Kolb, D. A. (2002). *Conversational learning: An experiential approach to knowledge creation*. Quorum Books. https://learningfromexperience.com/downloads/research-library/the-evolution-of-a-conversational-learning-space.pdf

Boyatzis, R. E. (2008). Competencies in the 21st century. *Journal of Management Development, 27*(1), 5–12. https://doi.org/10.1108/02621710810840730

Chevrollier, N., Argyrou, A., & Jeurissen, R. (2025). *Radical business perspectives for sustainability transitions*. Edward Elgar Publishing. https://www.elgaronline.com/view/book/9781035308026/9781035308026.xml

Crosta, L., Banda, V., & Bakay, E. (2023). 21st century skills development among young graduates: A European perspective. *GiLE Journal of Skills Development, 3*(1), 40–56. https://doi.org/10.52398/gjsd.2023.v3.i1.pp40-56

Csillag, S., Király, G., Rakovics, M., & Géring, Z. (2022). Agents for sustainable futures? The (unfulfilled) promise of sustainability at leading business schools. *Futures, 144*, Article 103044. https://doi.org/10.1016/j.futures.2022.103044

Greenwood, D. J. (2012). Doing and learning action research in the neo-liberal world of contemporary higher education. *Action Research, 10*(2), 115–132. https://doi.org/10.1177/1476750312443573

Heiskanen, E., Thidell, Å., & Rodhe, H. (2016). Educating sustainability change agents: The importance of practical skills and experience. *Journal of Cleaner Production, 123*, 218–226. https://doi.org/10.1016/j.jclepro.2015.11.063

Jacobson, M. J., & Wilensky, U. (2006). Complex systems in education: Scientific and educational importance and implications for the learning sciences. *The Journal of the Learning Sciences, 15*(1), 11–34. https://doi.org/10.1207/s15327809jls1501_4

Jordan, T., Reams, J., Stålne, K., Greca, S., Henriksson, J. A., Björkman, T., & Dawson, T. (2021). Inner development goals: Background, method and the IDG framework. *Inner Development Goals*. https://innerdevelopmentgoals.org/

Kilbourne, W. E., Beckmann, S. C., & Thelen, E. (2002). The role of the dominant social paradigm in environmental attitudes: A multinational examination. *Journal of Business Research, 55*(3), 193–204. https://doi.org/10.1016/S0148-2963(00)00141-7

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Lozano, R., Ceulemans, K., Alonso-Almeida, M., Huisingh, D., Lozano, F. J., Waas, T., Lambrechts, W., Lukman, R., & Hugé, J. (2015). A review of commitment and implementation of sustainable development in higher education: Results from a worldwide survey. *Journal of Cleaner Production, 108*, 1–18. https://doi.org/10.1016/j.jclepro.2014.09.048

Loorbach, D. A., & Wittmayer, J. (2024). Transforming universities: Mobilizing research and education for sustainability transitions at Erasmus University Rotterdam, The Netherlands. *Sustainability Science, 19*(1), 19–33. https://doi.org/10.1007/s11625-023-01335-y

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5–12.

Nijhof, A., Wins, A., Argyrou, A., & Chevrollier, N. (2022). Sustainable market transformation: A refined framework for analyzing causal loops in transitions to sustainability. *Environmental Innovation and Societal Transitions, 42*, 352–361. https://doi.org/10.1016/j.eist.2022.01.010

Patterson, J., Schulz, K., Vervoort, J., van der Hel, S., Widerberg, O., Adler, C., Hurlbert, M., Anderton, K., Sethi, M., & Barau, A. (2017). Exploring the governance and politics of transformations towards sustainability. *Environmental Innovation and Societal Transitions, 24*, 1–16. https://doi.org/10.1016/j.eist.2016.09.001

Pless, N. M., Maak, T., & Waldman, D. A. (2012). Different approaches toward doing the right thing: Mapping the responsibility orientations of leaders. *Academy of Management Perspectives, 26*(4), 51–65. https://doi.org/10.5465/amp.2012.0028

Shtaltovna, Y. (2021). Can a skill be measured or assessed? 6-level skills development approach to skill assessment. *GiLE Journal of Skills Development, 1*(1), 12–24. https://doi.org/10.52398/gjsd.2021.v1.i1.pp12-24

Snelson-Powell, A., Grosvold, J., & Millington, A. (2016). Business school legitimacy and the challenge of sustainability: A fuzzy set analysis of institutional decoupling. *Academy of Management Learning and Education, 15*, 703–723. https://doi.org/10.5465/amle.2015.0307

Sterling, S. (2010). Transformative learning and sustainability: Sketching the conceptual ground. *Learning and Teaching in Higher Education*, 5, 17–33.

Taylor, E. W. (2007). An update of transformative learning theory: A critical review of the empirical research (1999-2005). *International Journal of Lifelong Education, 26*(2), 173–191. https://doi.org/10.1080/02601370701219475

Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. *International Journal of Sustainability in Higher Education, 21*(1), 112–130. https://doi.org/10.1108/IJSHE-04-2019-0152

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The author received no financial support for this chapter's research, authorship, and/or publication.

### Data Availability

Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement

The author confirms that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

https://doi.org/10.56611/idg.casebook.001.2

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is André Nijhof, who can be contacted by email via a.nijhof@nyenrode.nl

https://doi.org/10.56611/idg.casebook.001.3

# CASEBOOK OF IDG IMPLEMENTION INTO HIGHER EDUCATION

# Implementing the Inner Development Goals in Higher Education: Examples from a Master's Programme in Psychology with a Focus on Future and Global Survival

**Mattias Johansson**
Karlstad University, Sweden
ORCID: 0009-0005-4352-0385

**Abstract**

There is an urgent need for new forms of pedagogical frameworks and competencies that can equip students of tomorrow to skilfully address the sustainability challenge. One such framework is the Inner Development Goals (IDG). The following paper presents how the IDG was used when creating and implementing a master's programme in psychology with a focus on future and global survival at Karlstad University in Sweden. The process is described in relation to the Quality Implementation Framework (The Public Health Agency of Sweden, 2023). The IDG is used as a generic framework for the programme, as part of working with professional development and reflective learning, and when designing learning content. The paper gives examples of a number of diverse learning experiences in which the IDGs were used as an inspiration. The IDG is also applied in relation to the main aims of the programme, psychological insight for sustainable behaviour changes, and transition to a sustainable future. The role of psychology as a driver for sustainable development is discussed. The implementation process was supported by the university, and from the point of the author and students, the framework of the programme, including the IDG, was deemed positive. Implications for using the IDGs are discussed.

***Keywords/key phrases***: psychology, master programme, Inner Development Goals (IDG), implementation, sustainable development, behaviour change

## 1. Introduction

The challenge of transforming society towards a more sustainable one is perhaps the greatest task of our times. The United Nations´ Sustainable Development Goals (SDG) were launched in 2015 as a way towards this aim (United Nations, 2015). Yet progress is slow and meets many obstacles. By 2023 (Malekpour et al., 2023) and 2024 (Sachs & Fuller, 2024), only a minority of SDGs were going in the right direction. The sustainability challenge has been described as a *wicked problem, "*a problem that is characterized by high levels of complexity and ambiguity and involves multiple stakeholders with strongly divergent values and perspectives" (Encyclopaedia of sustainability in higher education, 2018). Addressing and working towards

a sustainable future, therefore, demands more of humanity than perhaps ever before. Yet humanity may not be sufficiently equipped to deal with the issue at hand. Many organizations and researchers postulate that human beings need to develop competencies and abilities to understand and address the challenge in a constructive way (Bianchi et al., 2022; Rieckmann, 2011; Wiek et al., 2011).

Higher education is an important arena to equip students with competencies and abilities to address the challenges of society. Yet, traditional learning in higher education has been criticized for being too limited for the task at hand (Wolff et al., 2022). Putting, for example, too much focus on cognitive learning on behalf of affective learning (Grund et al., 2024; Shephard, 2007). If students of tomorrow are going to be able to meet the complex challenges of the future, such as wicked problems, higher education needs to develop its pedagogies. Pedagogical frameworks such as *Education for Sustainable Development Goals* (2017) and *GreenComp* (Bianchi et al., 2022) suggest that students need to develop multiple skills, like systems thinking, future thinking, awareness, and compassion, to name a few. For developing skills and competencies in higher education, see Crosta et al. (2023) as well as Estaiteyeh et al. (2023). Whether it's called *Holistic education* (2022), *Sustainable learning* (2022), or *Didactical commitment* (Öhman & Sund, 2021), "Sustainability education should connect students with real-world problems and immersive experiences. Appreciating the greater good for people and planet and contributing to values more than mere monetary benefits will further enthuse or inspire students." (Hessen & Schmelkes, 2022, p. 11).

**The Inner Development Goals (IDG)** is a recent creation in a similar vein to those frameworks mentioned above. The IDG addresses the need for developing human competencies and abilities to more skilfully meet the sustainability challenge. The following question was posted to researchers, teachers, and businesspeople, "What abilities, qualities or skills do you believe are essential to develop, individually and collectively, in order to get competences are needed to us significantly closer to fulfilling the UN Sustainable Development Goals?" (Inner Development Goals Report, 2021, pp. 6–7). Answers to the question were gathered and coded into groups. The final number of SDGs ended up at 23. These IDGs were finally grouped into 5 areas (**Being** – relationship to self, **Thinking** – cognitive skills, **Relating** – caring for others and the world, **Collaborating** – social skills, and **Acting** – enabling change). According to the Inner Development organization, "inner development" should not be seen as individual development but "…inherently collective, systemic, multidimensional, nonlinear, complex, emergent, and messy." (Inner Development Goals, 2025). It should be seen as a communication framework for "what inner development can look like and why it matters for catalysing outer change." (Inner Development Goals, 2025).

Since 2021 the Inner Development Goals has grown as a framework and organization. It has also gained interest in higher education. As a pedagogical framework for teaching and learning (Nordén, 2024), in redefining education (Shtaltovna, 2024), empowering students (Shtaltovna, et al., 2024), and transforming higher education (Wamsler, 2018). Conceptualizing higher education on a meso-level, it may serve as a link between the UN Sustainable Development Goals on a macro level and the Inner Development Goals on a micro-level and provide students with support for individual growth to support sustainability (Wood, 2025).

Psychology as a discipline has both possibilities and limitations in how to approach and work with sustainable development. Psychology is the study of the mind and human behaviour (American Psychological Association, 2023). Sustainability can sometimes put too much focus on outer sustainability factors. Yet, the sustainability challenge is created by human beings. It's how we think, feel, and interact with other people and the world. Humans have limitations in their thinking, *cognitive biases* that may limit the capacity to meet the sustainability challenge (Scott et al., 2021). By becoming more aware of how people think and of emotional processes, individuals may be more able to direct their attention to constructive behaviours in relation to other people and the rest of the world. It is said that the world needs to change on a systemic level, yet all behaviour starts at the level of the individual (Scott et al., 2021). A proposed root cause of the climate crisis is the Dominant Social Paradigm (DSP; Scott et al., 2021). According to this paradigm, humans are separate from and superior to nature, nature can and should be controlled, individuals have a right to maximum economic gain, and progress equals growth. These are examples of attitudes, values, and worldviews.

Psychology studies these constructs and how they may change. A further limitation in psychology, and especially Western psychology, is the narrow perspective on the self. By expanding the sense of self to include the whole world, wellbeing may not only be seen as something of the individual but as being part of a larger system, including environmental, social, and political aspects of sustaining a good life (Steger 2024). Further, psychology could be used to work directly with sustainability goals related to poverty, healthy lives and wellbeing, inclusive and equitable education, gender equality, making cities more sustainable, and decent work, to name a few (APA, 2023). But also, indirectly, clear and constructive communication, conflict resolution, leadership, changing worldviews, attitudes, and behaviour, are competencies needed in working with sustainable development issues (Scott et al., 2021). To conclude, psychology has an important role to play in sustainable development.

Due to the multiple crises affecting the future of our world, there is an urgent need for new forms of pedagogy in higher education. Students need to be equipped with tools and competencies that make them resourceful in addressing the sustainability challenge in a skilful way. The aim of the following case was to describe the process of using the Inner Development Goals (IDG) as a framework when creating, designing, and implementing a new master's program in psychology with a focus on future and global survival at Karlstad University, Sweden.

## 2. The Programme

For a good starting point, there will first be a description of how the master programme came into being in relation to the four phases of the Quality Implementation Framework (The Public Health Agency of Sweden, 2023). *The first phase is an assessment of needs and methods*. At our psychology department, one of the professors was appointed to reflect on and present a new idea for a master's programme. A preliminary version of the master's programme was positively received by the department (August 2023). *The second phase entails creating a structure for the implementation.* Interested teachers were assigned to a working group and were given responsibility for the implementation. At this time, the IDG framework was discovered, and after discussions in the group, it was decided to be used as a framework for the programme (August 2023 – December 2024). *The third phase is the actual implementation*. This phase began at the start of the programme (January 2024). *The final, fourth phase, consists*

*of analysing lessons learned in order to improve future implementation processes.* This is a continuous process that entails meetings in the working group, discussing evaluations, and correcting the courses for the best of the program.

The main focus of the program is on the point of intersection between psychology and sustainability but also related fields in behavioural and social sciences. Examples of prioritized applied areas of study can be understanding how people are affected by global challenges such as climate change, biodiversity loss, catastrophes, social turmoil, promoting resilience, wellbeing, and health, and how to use psychological knowledge in working for a sustainable world for people living today and in the future. Another important aim is presenting the students with a practical, real case studies approach for engagement and employability (O'Neill & Short, 2025).

The master's programme, which uses a remote study format, consists of four semesters of full-time study. The programme is in Swedish and students are spread out mostly through the southern and central parts of Sweden. Remote study programmes have challenges not found in campus-based studies (Zainal Badri et al., 2022), such as balancing studying and private life, and mental health. In order for the students to get to know each other, create a sense of community, and promote motivation for the entire programme, each semester there is a three-day campus-based meeting (*närträff*).

The programme has its base in psychology (a bachelor's degree in psychology is required to attend the program). In addition to the generic mandatory learning objectives, we created two additional local ones to highlight the uniqueness of the programme and distinguish it from similar programmes. The first one, "show an understanding of the complex issues of human decision making and behaviour in relation to other disciplines in society's transition towards sustainability," and the second, "show knowledge and understanding of the importance of inner psychological insight for the implementation of lasting behaviour change." (Karlstad University, 2023). The courses in each semester can be seen below in Table 1.

TABLE 1. OVERVIEW OF COURSES IN THE MASTER PROGRAMME IN PSYCHOLOGY

| Semester | Courses |
|---|---|
| 1 | Introduction to psychology, sustainability, and global challenges<br>The psychology of decision making and critical evaluation<br>Crisis and disaster psychology<br>Outlook on life and global trends |
| 2 | Positive behavioural change<br>Sustainable leadership<br>Positive psychology and salutogenic perspective<br>Conflict management |
| 3 | Scientific methods in Psychology – advanced level<br>Scientific projects about the future and global survival<br>The role of nature and ecopsychology |
| 4 | Master thesis in psychology |

Source: own compilation

https://doi.org/10.56611/idg.casebook.001.3

## 3. Implementing the IDG Framework in the Programme

Early in the process of creating the programme, we discovered the IDG framework. Although some initial hesitation because of the IDG´s not entirely evidence-based grounding, the main attractions were its availability, recognition, and growth, both in the academic world and as a social movement. We also thought that the five areas of the IDGs could nicely bring together the local learning objectives of inner psychological insight for behaviour change and understanding the complex issues related to transitioning to a more sustainable society. By adding the IDGs to the programme, the essence of the programme started to become clearer. We have applied the IDGs on three levels in the master's programme. (1) As a generic framework for the programme, (2) as personal and professional development, and (3) as a tool for designing courses.

### 3.1. IDG as a Generic Framework

What is required of a student wanting to work with psychological/social aspects of sustainable development? Of course, we cannot predict the future, but there are suggestions. According to the Future of Jobs Survey of 2024 of the World Economic Forum, some of the most important skills of the 2025 working-life, are resilience, flexibility and agility, creative thinking, leadership and social influence, curiosity and lifelong learning, motivation and self-awareness, analytical thinking, systems thinking, empathy and active listening (World economic forum, 2024). It can be concluded that the students of the future need a broad and diverse set of skills.

As was stated above, applying the IDGs to the master's programme made it easier to see the essence of the programme. Although the basic structure of the courses of the programme was set, the next step was to decide the contents. The aim was to create learning content for the students that covered most of the IDGs throughout the two years of study. The IDG framework was introduced and presented in the following way in the programme.

The Inner Development Goals were presented in the first course. In the end of each course, using reflective learning for the course content/curriculum (see the IDG in professional development and reflective learning for further discussions). At the end of each semester, there is a seminar in which the students contemplate on the 10 most important examples of learning experiences. Thereafter, presenting the memorable learning experiences in pairs. Finally, in small group discussions are made in relation to the IDGs. What has been learned and what is missing? In the end of the programme the students take stock on what they have learned in all of the courses in relation to IDG and create a portfolio.

### 3.2. IDG in professional development and reflective learning

We have chosen to include a focus on professional development and reflective learning throughout the programme. Holistic education in which the whole human being is approached in learning as recommended by the Education for Sustainable Development Goals (2017), GreenComp (Bianchi et al., 2022) and the IDG also require creating safe spaces for a transformative learning to take space (Freude, 2021; Singer-Brodowski, 2022). By utilizing reflective practices students may challenge assumptions taken for granted (Ralph, 2015) and provide benefits for understanding multiple perspectives and creating self-directed learners (Ayers et al., 2020; Hart et al., 2025). In the beginning course, students are introduced to reflective practices such as reflecting on why they chose to apply for the programme. They also

have to reflect on their strengths and limitations and create a mental plan of how to successfully complete the programme. During courses they reflect on their learning and their development and at the end of each semester summarize what they have learned and how to move forward. All reflections will be gathered in a portfolio at the end of the programme. Through these reflective practices the IDGs are applied and reflected on. Students have been informed about the IDGs, they are continuously discussed, used for inspiration and as a guide for further learning.

In the end of each course the students reflect on four questions influenced by Gibbs reflective cycle (Gibbs, 1988):

- **What happened** – Give a short description of the chosen course content/course experience.
- **My reactions** – Describe how you have reflected on the course content and how you have worked with it.
- **My learning** – What do you bring with you from this learning experience?
- **My reflections** – how could these learning experiences be useful for you in the future?

By reflecting on these four questions the student may start to get a deeper understanding of their own way of learning, metacognitive awareness and several other IDG related competencies.

### 3.3. IDG as a Tool for Designing Course Content

The IDGs were also applied in the construction of course content. Having the IDGs as a blueprint for choosing course content and related learning goals that may develop specific IDGs was a help in creating diverse and interesting learning experiences. Specifically, when working on creating learning experiences I deliberately consulted the IDG framework to see how the content of the course could be informed by specific IDGs. Thereby, covering most parts of the IDG framework throughout the entire programme. Below are some examples of learning experiences and possible corresponding IDGs in Table 2. Note that more IDGs than the ones mentioned may also be developed.

#### *3.3.1. Personal Sustainability*

In the first course of the programme, there is a focus on personal sustainability. By personal sustainability we mean how to take care of oneself. The subject is first introduced in a lecture about stress and coping, psychological safety, self-compassion, Ikigai and mental performance planning. In a following seminar the students present a plan for how to live sustainably during the programme and after. Firstly, the issue of personal sustainability relates to inspiring students having a healthy lifestyle during the programme (Donald & Healy, 2025). Secondly, many people working in the area of climate change and sustainability are highly environmentally engaged people and there is positive relationship with psychological distress and climate anxiety (Lukacs, et al., 2023). Lastly, we also want to show that sustainability is not only about something “out there”, but something inherent in everything we do. It’s the relationship with ourselves, with other people, and with nature. See Parodi et al. (2023) for further discussions. It also displays the psychological essence of the programme on inner psychological insight and behaviour change. By engaging in personal sustainability, the student may develop the

following IDGs: Inner compass, Integrity & authenticity, Self-awareness, Empathy & compassion, Trust, and Perseverance.

### *3.3.2. Deep Time Walk*

The Deep Time Walk was created by Stephan Harding (Harding & Woodford, 2024). It is a transforming learning framework with the aim of giving the students an experience of the age of the earth and how short time human beings have lived on the planet and during that time have changed the planet to the Anthropocene era. The earth is approximately 4,6 billion years old. The Deep Time Walk is created so that each metre is one million years totalling the length of the walk to 4,6 kilometres. The students can either use the Deep Time Walk app or the teacher can use a manual to read from what is happening in earth history while taking the walk. Engaging in the Deep Time Walk may develop IDGs such as Sense-making, Long-time orientation and visioning, Humility, Trust, and Connectedness.

### *3.3.3. The Work That Reconnects*

The Work That Reconnects (a.k.a. Active Hope) was created by Joanna Macy (Macy & Johnstone, 2022). It is a framework for working with and experiencing difficult emotions related to climate change and empowering individuals to act. The workshop consists of four phases. (1) In the first phase, *Coming from gratitude*, the students are invited to focus on gratefulness by writing down an answer to "What do you love about living on planet earth?" or "Describe a place that was magical when you were a child!". (2) In the second phase, *Honouring the pain for the world*, the students are invited to reflect on the question "When I think about the state of the world this is how I think about the future", (3) In the third phase, *Seeing with new eyes*, the students write down a response to "If the world could speak what would it tell us?" or "Experience a world in which we have solved the global challenges we are facing, where we are living sustainably". (4) In the last phase, *Going forth*, the student is to ponder the following statement "If you knew that you couldn't fail, what would you do to contribute to the healing of the Earth? What specific project or goal would you want to reach in a year? What resources do you need and what do you have to create? How do you proceed? Next week, next month, next year?". In the end the students can reflect on the experience. As a teacher, it's important to inform that the workshop can affect the students emotionally and for the workshop to end in a safe way it's important to make sure that the students are ok before leaving. Yet, in order for real change to take place a combination of mind, emotions, imagination, and body may be needed (Hathaway, 2017). The Work That Reconnects may especially develop IDGs such as Integrity & authenticity, Openness & learning mindset, Mobilization skills, Appreciation, and Courage.

### *3.3.4. Nature Connection Exercise*

One of the courses in the programme is devoted the human relationship to nature for wellbeing and sustainable development. Exploring nature connections can be made in different ways. Here we use the work of Richardson and colleagues at the University of Derby (Lumber et al., 2017; Richardson, 2023), in which ways to increased nature connections are made through five different pathways; *senses* (actively engaging with nature through the senses), *emotions* (engaging emotionally with nature), *beauty* (finding beauty in the natural world), *meaning* (exploring and expressing how nature brings meaning to life) and *compassion* (caring for nature) (Richardson, 2023, p. 136–137). The students learn the framework and are instructed to

experience nature connections by themselves and guiding a group of students. IDGs that may be developed in a Nature connection exercise are Appreciation, Connectedness, Self-awareness, Creativity, Perseverance and Perspective skills.

### *3.3.5. Writing an Essay about a Utopian Future*

In this examination, the students' task is to write an essay about a utopian future in which people are living sustainably, and the sustainability challenges have been solved. The students write a future scenario including different areas of society, characters/persons living in a society characterized by sustainability and healthy citizens applying a lens of Positive psychology and salutogenic (health affirming) perspectives. In this essay, the students have the possibility to engage in creative writing, long-term visioning, and backcasting from the future. Thus, IDGs that may be developed in this examination may be Long-term orientation & visioning, Communication skills, Courage, Creativity, and Optimism.

### *3.3.6. Exploring Worldviews*

In this seminar, the students have to fill out a Worldviews test (de Witt et al., 2016). Depending on the results students are categorized into one out of four worldviews (Traditional, Modern, Postmodern, & Integrative). In the first session, they discuss their own worldview. The second session is a role play. The students are given a different worldview to play and in a group format they discuss a sustainability issue from the perspective of the new worldview. Exploring worldviews in this fashion may develop IDGs such as Openness & learning mindset, Complexity awareness, Perspective skills, Humility and Inclusive mindset & intercultural competence.

TABLE 2. IDGS RELATED TO SPECIFIC LEARNING EXPERIENCES

| | Personal sustain-ability | Deep Time Walk | The work that re-connects | Nature connection exercise | Writing a utopian essay | Exploring world-views | Student mindful-ness inter-vention | System thinking group exercise |
|---|---|---|---|---|---|---|---|---|
| Inner compass | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Integrity & authenticity | ✓ | ✓ | | | | ✓ | ✓ | |
| Openness & learning mindset | ✓ | | ✓ | | | ✓ | ✓ | ✓ |
| Self-awareness | | | | ✓ | | | ✓ | |
| Presence | | | | | | | ✓ | |
| Critical thinking | | | | | | ✓ | | ✓ |
| Complexity awareness | | | | | | ✓ | | ✓ |
| Perspective skills | | | | | | ✓ | | ✓ |
| Sense-making | ✓ | ✓ | | | | | | ✓ |
| Long-term orientation & visioning | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Appreciation | ✓ | ✓ | ✓ | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Connectedness | ✓ | ✓ | | | | | | |
| Humility | | | ✓ | | | ✓ | | |
| Empathy & compassion | ✓ | | ✓ | | | | | |
| Communication skills | | | ✓ | ✓ | ✓ | | | ✓ |
| Co-creation skills | | | | | | ✓ | | ✓ |
| Inclusive mindset & intercultural competence | ✓ | | | | | ✓ | | ✓ |
| Trust | | ✓ | | | | | ✓ | |
| Mobilization skills | | | ✓ | | | | | ✓ |
| Courage | | ✓ | | ✓ | ✓ | | | |
| Creativity | | | ✓ | ✓ | ✓ | | | |
| Optimism | | | | ✓ | ✓ | | | |
| Perseverance | ✓ | | | | | | ✓ | |

Source: own compilation

### *3.3.7. Student Mindfulness Intervention*

During the last couple of years, the relationship between inner transitions in relation to sustainability has gathered interest among researchers (Bristow et al., 2022; Wamsler, 2022; Wamsler, et al., 2021) and has been provided for students in higher education in Sweden (Libertson, 2023). In this vein the practice of mindfulness shows many possibilities for sustainable development (Bristow et al., 2022). In the following exercise, the students use a mindfulness app and are invited to use it every day for two weeks. They use the Healthy Minds App created by Richard Davidson at the centre for Healthy Minds, University of Madison. In addition to exploring mindfulness and reflect on their experience, the students read scientific articles that explore the association between mindfulness and sustainability. IDGs that may be developed when practicing mindfulness and studying the scientific literature and research are Inner Compass, Self-awareness, Presence, Empathy & compassion, Critical thinking, Trust, and Perseverance.

### *3.3.8. Systems Thinking Group Exercise*

Systems thinking is a method and approach to understanding and working with a system and an important competence when working with sustainability and wicked problems. It is a skill proposed by the Education for Sustainable Development Goals (2017) and GreenComp (Bianchi et al., 2022) for working with sustainable development. In this exercise the student's task is to learn about systems thinking (Stroh, 2015) and create a workshop with a practical example for their students. They later practice their skills in analysing a real-world sustainability case. Several IDG skills and competencies may be developed when studying and creating a systems thinking workshop; Openness & Learning Mindset, Critical Thinking, Complexity Awareness, Perspective Skills, Sense-making, Communication-skills, Co-creation Skills, Inclusive mindset & intercultural competence, and Mobilization skills.

https://doi.org/10.56611/idg.casebook.001.3

## 4. Reflections on Using the IDG Framework in a Master's Programme in Psychology

Recapitulating after three of four semesters, one may reflect on the pedagogical merits of implementing the IDG in the programme. Was it successful? This question can perhaps only be completely answered at the end of the programme and perhaps when the students have been working for some time in the sustainability area. In the meantime, some preliminary reflections can be made based on student evaluations and reflections of the author of this paper. But let's start with reflecting on the process of implementing the programme in relation to important factors that may hinder successful implementation of the SDG in higher education (Leal Filho et al., 2019).

(1) *Limited awareness and understanding about sustainability and low importance afforded to SD matters.* To the contrary, the faculty and the institutional leaders showed a positive view on the framework of the programme including the IDG. The SDG and IDG have already been implemented at several universities in Sweden, so the framework may have some credibility.

*(2) Lack of an official body responsible for SD implementation.* A group of four people (including the author) were given responsibility to implement the programme. Course leaders were assigned to share responsibilities. Regular meetings with the group took place before programme start and thereafter. Programme coordinators were appointed to lead the implementation.

(3) *Not all universities have a planning framework supporting the SD implementation.* There is a continuous process of evaluating what works and not, order of courses could change places for the best of the program, new teachers became part of the working group and institutional leaders showed flexibility when there were some students drop out and created possibilities to have some courses open for application without signing up for the entire programme.

(4) *Resources for implementation of SD are not enough.* The institutional leaders allocated resources to the four teachers responsible for implementation during the first part of implementation. During the second-year fewer resources were provided for course design.

(5) *More effective communication.* During semester three a programme council *(programråd*; group consisting of students and programme director) was formed creating room for two-way communication. During the first year the programme director and a student in the programme were interviewed for the programme webpage. Extra effort has been given to advertising in social media, psychology magazines in Sweden and Norway and taking part in student conferences.

What do the students think about the IDG? Some preliminary evaluations show that the majority of students are positive to the IDG framework. They find the way of bridging inner and outer forms of sustainability, in which inner sustainability is as important as outer and inner development may be a prerequisite for and understanding of outer sustainable change, as beneficial for learning and preparation for the future. The students are positive to the teaching and learning in the programme including professional development, reflective learning,

personal sustainability and holistic pedagogics like the head, hands, and heart pedagogy (Sipos, Battisti, & Grimm, 2008) in addition to the IDG. One student state that higher education leans too much on cognitive and critical thinking and thinks that other forms of learning is welcome. *"I think that the five areas in IDG (being, thinking, relating, cooperation and acting) constitutes a good ground when acquiring new knowledge, where we not only use our thinking skills but where we can use other human competencies".*

Another student points to the benefits of holistic learning and inner transformation for outer change. *"... I have come to understand that competences like awareness, relatedness, co-creation and courage is, for me, as important when applying knowledge in real world settings."*

Yet the IDG framework is a new way of learning and therefore one need some time to get used to it. It is a transformative journey. *"It can be challenging because it's about a new way of thinking about change; to work with values and inner motivation to create real change".*

As with all forms of teamwork, there will be points of agreement and disagreement and so it has been the core faculty of the master's programme. Some teachers have applied the IDG more than others in their separate courses, and autonomy and freedom for the teachers in designing courses and creating learning experiences is important. Yet the IDG, professional development and reflective learning have accompanied the students continuously throughout the programme with some recaps to reflect together with fellow students at the campus-based meetings. Yet all ideas inspired by the IDG were not workable. Some ideas that had to be discarded were students reflecting on group dynamics of their working groups in their reflective learning. E-portfolios were initially thought of but had to be let go of because of the technical limitations of the software. Finally, even though emotional learning is important for developing empathy/compassion and are part of many sustainable learning frameworks in addition to the IDG, it's important to prepare students for potential triggering experiences. One may prepare student for upcoming emotionally laden material so that they have the capacity to prepare and in so creating a conducive learning environment.

Having had the IDG framework in the back of my mind while we created the structure of the programme, its generic perspectives and specific course content, it has also influenced and sometimes changed my own view of teaching and my own role as a teacher in higher education. I think the IDG framework has widened my view of how learning can happen. When reflecting on how to approach teaching and creating new learning experiences I now have a larger repertoire of pedagogies, perspectives and tools on how to approach it.

## 5. Conclusion

The aim of the present chapter was to describe the process of using the IDG as a framework when creating and implementing a master programme in psychology with a focus on future and global survival. Because of the complexity of the sustainability challenge new forms of pedagogical tools and competencies are needed to skilfully address the problem. One such framework is the IDG. We used the IDG framework as a pedagogical tool for reaching the local learning goals of the programme; the complex issue of human decision making in relation to other disciplines and psychological inner insight for lasting behaviour change in society's transition towards sustainability. Specifically, the IDG framework may have the potential for the students in becoming aware of human assumptions and psychological limitations such as cognitive biases and the Dominant Social Paradigm (DSP) needed for a transformation for

sustainable development. In addition, the IDG framework may also expand students' self-construal, from egocentric self to eco-centric self, providing pro-environmental attitudes and behaviours (Danon, 2019). Finally, having a focus on Awareness, Co-creation and Long-term visioning, the IDG can provide for an understanding that the sustainability challenge is created by humans. It is how people think, feel, and interact with each other, and the rest of the world. This knowledge may provide the students with agency and motivation for working towards a sustainable future (Wood, 2025).

The IDG was used generically for the program, as personal and professional development and as designing course content. The IDG framework has generally been positively received by the teachers of the programme and may have helped to find the programme's uniqueness and its essence. The students of the programme are generally positive about the IDG framework, but as the first cohort of students has not finished the programme yet, more evaluations are needed at the time of graduation.

Based on the results of this paper, some implications can be made. The use of theoretical frameworks for implementation is recommended. Implementing a new programme takes time and hard work. It is important to get financial and organizational support from the department and the university. Using the IDG as an inspiration/framework can have many benefits, such as presenting new forms of teaching and learning for teachers and students. Although as it is a different kind of pedagogical approach compared to traditional teaching in higher education, implementation may take time. It may take time for some teachers and students to learn and there may be some initial resistance. In that case, it is important that IDG share many pedagogical approaches with important publications such as Education for Sustainable Development Goals (2017) and GreenComp (Bianchi et al., 2022). The author (also programme director) of this paper has tried to describe the implementation process in a balanced way. Yet, as the author is generally positive towards the IDG framework, this may have influenced the writing article.

## References

American Psychological Association. (2023). *Psychological contributions to achieving the sustainable development goals.* Psychological Contributions to Achieving the Sustainable Development Goals

Ayers, J., Bryant, J., & Missimer, M. (2020). The use of reflective pedagogies in sustainability leadership education—A case study. *Sustainability, 12*(17), 6726. https://doi.org/10.3390/su12176726

Bianchi, G., Pisiotis, U., & Cabrera Giraldez, M. (2022). *GreenComp – The European sustainability competence framework.* In M. Bacigalupo & Y. Punie (Eds.), EUR 30955 EN, Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/handle/JRC128040

Bristow, J., Bell, R., & Wamsler, C. (2022). *Reconnection: Meeting the climate crisis inside-out* (Policy report). The Mindfulness Initiative & LUCSUS. https://www.themindfulnessinitiative.org/reconnection

Crosta, L., Banda, V., & Bakay, É. (2023). 21st century skills development among young graduates: A European perspective. *GiLE Journal of Skills Development, 3*(1), 40–56. https://doi.org/10.52398/gjsd.2023.v3.i1.pp40-56

Danon, M. (2019). "From Ego to Eco": The contribution of Ecopsychology to the current environmental crisis management. *Visions for Sustainability*. https://doi.org/10.13135/2384-8677/3261

de Witt, A., de Boer, J., Hedlund, N., & Osseweijer, P. (2016). A new tool to map the major worldviews in the Netherlands and USA, and explore how they relate to climate change. *Environmental Science & Policy, 63,* 101-112 https://doi.org/10.1016/j.envsci.2016.05.012

Donald, W. E., & Healy, M. (2025). We need to talk about resilience: The case for a pragmatic and holistic perspective. *GiLE Journal of Skills Development, 5*(1), 171–178. https://doi.org/10.52398/gjsd.2025.v5.i1.pp171-178

Estaiteyeh, M., Campbell, N., DeCoito, I., & Takkouch, M. (2023). Setting students up for success: Developing interdisciplinary skills in a medical sciences graduate program. *GILE Journal of Skills Development, 3*(2), 66–84. https://doi.org/10.52398/gjsd.2023.v3.i2.pp66-84

Grund, J., Singer-Brodowski, M., & Büssing, A. G. (2024). Emotions and sustainable learning for sustainability: A systematic review. *Sustainability Science, 19*(1), 307–324. https://doi.org/10.1007/s11625-023-01439-5

Folkhälsomyndigheten. (2023). *Från nyhet till vardagsnytta - om implementeringens mödosamma konst. En rapport om implementering inom folkhälsoområdet,* (Version 3.0) [From novelty to everyday use – about the arduous art of implementation: A report on implementation in public health].

Fraude, C., Bruhn, T., Stasiak, D., Wamsler, C., Mar, K., Schäpke, N., & Lawrence, M. (2021). Creating space for reflection and dialogue. Examples of new modes of communication for empowering climate action. GAIA – Ecological Perspectives for Science and Society, 30(3), 174 –180. https://doi.org/10.14512/gaia.30.3.9

Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods.* Further Education Unit, Oxford Polytechnic.

Hanson, L. L. (2019). Wicked problems and sustainable development. In W. Leal Filho (Ed.), *Encyclopaedia of Sustainability in Higher Education*. Springer. https://doi.org/10.1007/978-3-319-63951-2_522-1

Harding, S., & Woodford, R. (2024). The Deep Time Walk: How effective is it? *Journal of Sustainability Education, 29,* 1–14.

Hart, E. J., de Heer-Koster, M. H., van der Harst, M., Browne, J. L., & Scheele, F. (2025). Key tips to shift student perspectives through transformative learning in medical education. *BMC Medical Education, 25*(1), 202. https://doi.org/10.1186/s12909-025-06754-2

Hathaway, M. D. (2017). Activating hope in the midst of crisis: Emotions, transformative learning, and "The Work That Reconnects". *Journal of Transformative Education, 15*(4), 296–314. https://doi.org/10.1177/1541344616680350

Hessen, D. O., & Schmelkes, S. V. (2022). *Higher Education and the SDGs. A synthesis based on the report of the Global Independent Expert Group on the Universities and the 2030 Agenda (EGU2030)*. UNESCO. Higher education and the SDGs - UNESCO Digital Library

Inner Development Goals. (2021). *Inner Development Goals: Background, method and IDG framework.* https://drive.google.com/file/d/13fcf9xmYrX9wrsh3PC3aeRDs0rWsWCpA/edit

Inner Development Goals. (2025, July 3). *Framework*. Framework – Inner Development Goals

Karlstad University. (2023). *Programme syllabus: Master programme in psychology with a focus on future and global survival*. https://www3.kau.se/utbildningsplaner/en/VAPFO_20241.pdf

Leal Filho, W., Pallant, E., Enete, A., Richter, B., & Brandli, L. L. (2018). Planning and implementing sustainability in higher education institutions: An overview of the difficulties and potentials. *International Journal of Sustainable Development & World Ecology, 25,* 713–721. https://doi.org/10.1080/13504509.2018.1461707

Libertson, F. (2023). Inner transitions in higher education in Sweden: Incorporating intra-personal skills in education for sustainable development. *International Journal of Sustainability in Higher Education, 24*(9), 213–230. https://doi.org/10.1108/IJSHE-12-2022-0395

Lukacs, J. N., Bratu, A., Adams, S., Logie, C., Tok, N., McCunn, L. J., et al. (2023). The concerned steward effect: Exploring the relationship between climate anxiety, psychological distress, and self-reported climate-related behavioural engagement. *Journal of Environmental Psychology, 90,* 102091. https://doi.org/10.1016/j.jenvp.2023.102091

Lumber, R., Richardson, M., & Sheffield, D. (2017). Beyond knowing nature: contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLoS ONE, 12*(5), e0177186. https://doi.org/10.1371/journal.pone.0177186

Macy, J., & Johnstone, C. (2022). *Active hope: How to face the mess we're in without going crazy.* (Revised ed.). New World Library.

Malekpour, S., Allen, C., Sagar, A., Scholz, I., Persson, Å., Miranda, J. J., et al. (2023). What scientists need to do to accelerate progress on the SDGs. *Nature, 621*, 250–254. https://doi.org/10.1038/d41586-023-02808-x

Nordén, B. (2024). Advancing sustainability through higher education: Student teachers integrate inner development goals (IDG) and future-oriented methodologies. *Challenges, 15*(2), 3–24. https://doi.org/10.3390/challe15020028

Öhman, J., & Sund, L. (2021). A didactic model of sustainability commitment. *Sustainability, 13*(6), 3083. https://doi.org/10.3390/su13063083

O'Neill, G., & Short, A. (2023). Relevant, practical and connected to the real world: What higher education students say engages them in the curriculum. *Irish Educational Studies, 44(1),* 1–18. https://doi.org/10.1080/03323315.2023.2221663

Parodi, O., Wamsler, C., & Dusseldorp, M. (2023). Personal sustainability. In T. Philipp & T. Schmohl (Eds.), *Handbook of transdisciplinary learning* (pp. 277–286). Transcript Verlag.

Ralph, N. (2015). Critical reflection as a catalyst for sustainable leadership development [Conference presentation]. Leading Wellbeing Research Festival, Brathay Hall, Cumbria, United Kingdom. https://doi.org/10.13140/RG.2.1.2990.8568

Rieckmann, M. (2017). *Education for sustainable development goals: Learning objectives* (UNESCO, Ed.). United Nations Educational, Scientific and Cultural Organization. https://doi.org/10.54675/CGBA9153

Sachs, J., Lafortune, G., & Fuller, G. (2024). *Sustainable development report 2024: The SDGs and the UN Summit of the Future*. UN Sustainable Development Solutions Network. https://www.unsdsn.org/

Steger, M. F. (2024). Regenerative positive psychology: A call to reorient wellbeing science to meet the realities of our world. *The Journal of Positive Psychology*, *20*(3), 373–396. https://doi.org/10.1080/17439760.2024.2365259

Shtaltovna, Y. (2024). Rewriting the future: How metamodern education can redefine society and leadership. *GiLE Journal of Skills Development, 4*(2), 112–121. https://doi.org/10.52398/gjsd.2024.v4.i2.pp112-121

Shtaltovna, Y., Rodriguez Carreon, V., Lindencrona, F., & Donald, W. E. (2024). Cognitive skills within the Inner Development Goals (IDG) framework: Empowering sustainable careers and sustainable development. *GiLE Journal of Skills Development, 4*(1), 74–94. https://doi.org/10.52398/gjsd.2024.v4.i1.pp74-94

Singer-Brodowski, M., Förster, R., Eschenbacher, S., Biberhofer, P., & Getzin, S. (2022). Facing crises of unsustainability: Creating and holding safe enough spaces for transformative learning in higher education for sustainable development. *Frontiers in Education, 7,* 787490 https://doi.org/10.3389/feduc.2022.787490

Sipos, Y., Battisti, B., & Grimm, K. (2008). Achieving transforming sustainable learning: Engaging head, hands and heart. *International Journal of Sustainability in Higher Education, 9(1).* https://doi.org/10.1108/14676370810842193

Stroh, D. P. (2015). *Systems thinking for social change: A practical guide to solving complex problems, avoiding unintended consequences, and achieving lasting results.* Chelsea Green Publishing.

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development.* https://sdgs.un.org/2030agenda

Wamsler, C. (2018). Contemplative sustainable futures: The role of individual inner dimensions and transformation in sustainability research and education. In W. Leal Filho & A. Consorte-McCrea (Eds.), *Handbook of sustainability and humanities* (pp. 359–374). Springer. https://doi.org/10.1007/978-3-319-95336-6_20

Wamsler, C., Osberg, G., Osika, W., Hendersson, H., & Mundaca, L. (2021). Linking internal and external transformation for sustainability and climate action: Towards a new research and policy agenda. *Global Environmental Change, 71*, 102373. https://doi.org/10.1016/j.gloenvcha.2021.102373

Wamsler, C., & Bristow, J. (2022). At the intersection of mind and climate change: Integrating inner dimensions of climate change into policymaking and practice. *Climatic Change, 173(1), 7.* https://doi.org/10.1007/s10584-022-03398-9

Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: A reference framework for academic programme development. *Sustainability Science, 6*(2), 203–218. https://doi.org/10.1007/s11625-011-0132-6

Wolff, L-A., Shephard, K., Belluigi, D. Z., Vega-Marcote, P., Rieckmann, M., Skarstein, F., & Cheah, S. (2022). Editorial: Transformative learning, teaching, and action in the most challenging times. *Frontiers in Education, 7, 1041914.* https://doi.org/10.3389/feduc.2022.1041914

Wood, P. (2024). The Inner Development Goals: Changing educational systems to meet the challenge of human-generated global crises. In I. Kushnir, K. Sood, M. S.-A. Park, H. Zhong, & N. Serret (Eds.), *Education and sustainable development in the context of crises: International case studies of transformational change*. (pp. 125–139). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83797-773-420241008

Zainal Badri, S. K., Wan Mohd Yunus, W. M. A., Ramos, H. M., & Mahmud, N. (2022). Remote learning and its implications toward study-life conflicts and the mental health of university students: Does studying at home or campus matter? *Higher Education Research & Development, 41* (7), 2523–2537. https://doi.org/10.1080/07294360.2021.2014407

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The author received no financial support for this chapter's research, authorship, and/or publication.

### Data Availability

No dataset is associated with this chapter.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

https://doi.org/10.56611/idg.casebook.001.3

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Dr. Mattias Johansson who can be contacted by email via mattias.johansson@kau.se.

https://doi.org/10.56611/idg.casebook.001.4

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

# Synergistic Sustainability: Integrating Inner Development Goals into Experiential Education in Brazil

**Rafaela Rolim**

Brazilian Experience, Brazil
ORCID: 0009-0000-3183-4858

**Nicholas Roster**

Northwestern Michigan College, United States of America
ORCID: 0009-0000-2136-7600

**Abstract**

This chapter examines the pedagogical efficacy of integrating the Inner Development Goals (IDGs) framework within a short-term, experiential study abroad program conducted by Northwestern Michigan College (NMC) in partnership with Brazilian Experience (BE) in Brazil, Spring 2024. The aims of the program are twofold: 1) to cultivate student competencies in sustainability and conservation through immersive, hands-on experiences, while 2) simultaneously fostering personal growth through structured reflection and application of the IDGs. While the aims of this program seem lofty, we feel the goals of a study abroad should be high to offset the environmental impacts of any travel. This analysis critically evaluates the program's design, implementation, and outcomes, demonstrating the potential of integrating IDGs into experiential education to enhance student development and promote global citizenship. Student comments collected at the end of the study abroad program capture the deep change accomplished by structuring a short-term program from the ground up, centred on the IDGs.

***Keywords/key phrases***: study abroad, experiential learning, sustainability, Inner Development Goals, higher education

## 1. Introduction

The imperative for holistic education, one that transcends traditional disciplinary boundaries to foster both cognitive and affective development, has gained increasing prominence in contemporary pedagogical discourse (Kolb, 1984; Mezirow, 1991). The integration of Inner Development Goals (IDGs) into educational frameworks has been a growing trend in recent research, particularly as it relates to the concept of experiential learning.

The IDG framework emphasizes personal and relational dimensions within sustainable development, highlighting goals such as "Being," which focuses on one's relationship to self, and "Relating," which underscores caring for others and the world.

This theoretical underpinning is crucial for fostering empowerment and compassion in educational settings, as noted by Adler in her examination of women's empowerment journeys (Adler, 2024). Experiential learning, characterized by its emphasis on active engagement and reflective practice, offers a potent framework for cultivating such holistic development (Dewey, 1938). In fact, research suggests that experiential learning is a vital pedagogical approach in achieving both IDGs and sustainable outcomes. For instance, Nordén's (2024) study on student teachers reveals that integrating IDGs with innovative teaching methodologies can transform students' mindsets toward sustainability, thus enhancing their educational experiences through practical engagement. Similarly, Wamsler et al. (2023) emphasize that experiential learning not only supports the practical implementation of sustainability education but also facilitates personal growth and the development of leadership competencies essential for fostering sustainable practices within global.

The connection between experiential learning and personal development is echoed in various studies, including those assessing how experiential methodologies can effectively enhance students' competencies and engagement (Chineme et al., 2019; Rahmawati et al., 2023; Singh et al., 2022). These methodologies prioritize real-world applications, enabling deeper connections between theoretical knowledge and practical skills. Interestingly, the significance of experiential learning extends beyond individual educational outcomes; it also serves to align higher education with the broader goals of the United Nations' Sustainable Development Goals. For example, Chineme et al. (2019) demonstrate how community engagement through experiential learning creates pathways for achieving multiple Sustainable Development Goals (SDGs), showcasing the interconnectedness of educational practices and global sustainability efforts. Furthermore, the incorporation of experiential learning strategies in various disciplines has proven essential for developing competencies that effectively address both individual and community needs (Kimura et al., 2022; Singh et al., 2022).

Given that experiential learning is so integral to deep learning and understanding, it would seem only appropriate to incorporate the IDGs into a short-term study abroad program. Study abroad programs provide fertile ground for experiential learning, exposing students to diverse cultural contexts and fostering intercultural competence (Deardorff, 2006). However, the integration of structured personal development frameworks, such as the Inner Development Goals (IDGs), within these programs remains relatively underexplored. Furthermore, designing a study abroad program from the ground up with a conscious focus on creating an experience that “offsets” the environmental impact of travel is novel. As Wamsler (2020) points out by actively considering challenges, we can transform educational experiences for improved social change. We believe that the study abroad program should be designed in such a way as to make the investment in environmental impact worthwhile, especially within the framework of the IDGs and the Sustainable Development Goals (SDGs) of the United Nations.

The IDGs, a framework encompassing five dimensions — Being, Thinking, Relating, Collaborating, and Acting — articulate the critical inner capacities required for sustainable development (IDGs, 2021). These dimensions, grounded in psychological and educational

theory, highlight the importance of self-awareness, critical thinking, empathy, collaboration, and agency in addressing complex global challenges. While mindfulness has been introduced in many areas of education, like: adult learning, kindergarten, and to help improve student resilience (Frank et al., 2020). These concepts have not been formally introduced into a short-term study abroad. This chapter analyses the application of the IDGs within a short-term study abroad program designed to enhance student understanding of sustainability and conservation in Brazil. It also seeks to determine if building a short-term study abroad program, aligned to the Inner Development Goals, is effective in creating a transformation of the students' mindsets toward sustainability, thus enhancing their educational experiences through practical engagement. Furthermore, generating some long-term behavioural changes towards sustainability from a short-term investment in ostensibly, unsustainable travel.

## 2. Program Design and Methodology

The Northwestern Michigan College – Brazilian Experience (NMC-BE) study abroad program was meticulously designed to integrate experiential learning with the IDGs framework. The program's methodology centred on a cyclical process of experience, reflection, conceptualization, and application, aligned with Kolb's (1984) experiential learning theory. The program was a short-term study abroad that lasted 9 days. Included on the trip were 13 students, 2 faculty from NMC and 1 travel guide from BE.

### 2.1. Immersive Experiential Learning

Experiential learning has long been recognized as one of the most effective methods for fostering deep understanding and long-term engagement with complex issues. In the context of environmental conservation, immersive experiences provide students with firsthand exposure to pressing ecological challenges, allowing them to connect theoretical knowledge with real-world applications.

Students were engaged with site visits to diverse ecological environments, exposing students to real-world conservation challenges, including plastic pollution, invasive species removal, reforestation, and animal rehabilitation. These site visits were carefully selected to illustrate the interconnectedness of environmental systems and the impact of human activities. For example, students visited marine wildlife conservation sites, engaged in beach clean-ups, and analysed the sources of plastic and other materials debris. They were then asked to draw connections between consumer behaviour, waste management policies, and marine biodiversity loss. At reforestation sites, they learned about native species restoration efforts, local reforestation methods, and the forest’s role in carbon sequestration, reinforcing principles from climate science and ecology.

Hands-on activities, such as tree planting, animal enrichment creation, and participation in flood relief efforts, provided students with direct engagement in sustainability practices. Beyond observation, hands-on activities allowed students to become active participants in conservation efforts. Studies have shown that direct involvement in reforestation projects increases environmental stewardship behaviours (Ardoin et al., 2020).

Similarly, students engaged in designing animal enrichment activities at wildlife rehabilitation facilities, applying principles of animal behaviour and welfare. This interactive approach aligns with research suggesting that experiential learning strengthens problem-solving skills and fosters a sense of agency (Kolb, 2015). These activities fostered a sense of agency and demonstrated the practical application of environmental knowledge. One of the most powerful outcomes of immersive experiential learning is the development of a deep personal connection to environmental issues. When students participate in flood relief efforts or assist in habitat restoration, they witness the direct impact of collective action. This aligns with studies indicating that experiential education enhances civic engagement and pro-environmental attitudes (Ballantyne & Packer, 2011). By integrating site visits with hands-on conservation work and community service, students move beyond passive learning to active problem-solving, positioning themselves as change agents in their communities. These experiences not only build knowledge of how to engage in these types of efforts but also cultivate a lasting commitment to sustainability.

### 2.2. Structured Reflective Practice

Reflection is a critical component of experiential learning, allowing students to process experiences, internalize lessons, and develop a deeper understanding of themselves and the world around them. Structured reflective practices provide a framework for students to engage in meaningful introspection, transforming their experiences into lasting insights.

Daily guided reflections, facilitated by faculty, created intentional spaces for students to process their experiences and connect with their inner selves. These reflections incorporated a variety of methods, including reflective journaling, group discussions, and mindfulness exercises, each designed to encourage deep contemplation and self-awareness. Research in educational psychology suggests that structured reflection enhances cognitive processing and helps students retain knowledge more effectively (Moon, 2004). Reflective journaling, for example, encouraged students to document their thoughts, emotions, and key takeaways, reinforcing learning through self-expression. Group discussions provided opportunities for collective meaning-making, enabling students to articulate their insights and consider diverse perspectives.

Daily reflections were structured for students to think deeply about something that was meaningful to them on the previous day. By revisiting their experiences, students reinforced their memories and identified key personal takeaways. Sharing these insights with peers cultivated a rich dialogue, highlighting the diversity of interpretations and demonstrating that while students might have shared the same events, each individual's learning and emotional response were unique. This practice aligns with transformative learning theory, which emphasizes the importance of critical reflection in reshaping perspectives and fostering personal growth (Mezirow, 1991). Structured reflections also supported students in developing metacognitive awareness—the ability to think about their own thinking—a skill linked to improved problem-solving and adaptive learning (Flavell, 1979).

### 2.3. Conceptualization and Application

By integrating structured workshops with hands-on activities, students were able to connect personal growth with global sustainability efforts. This intentional planning was an effort to

bridge educational theory and practice in sustainability education. Workshops delivered by Brazilian Experience on the Inner Development Goals (IDGs) and Sustainable Development Goals (SDGs) provided students with a theoretical framework for understanding sustainability and personal development. The IDGs emphasize the inner capacities, such as self-awareness, critical thinking, complexity awareness, and co-creation, that are essential for addressing complex global challenges. These personal skills complement the SDGs, which outline tangible objectives for environmental, social, and economic sustainability. Research suggests that personal development plays a critical role in fostering sustainable leadership and long-term commitment to environmental action (Wamsler et al., 2020).

To move beyond surface-level observations, Brazilian Experience organized a workshop to have students apply the **iceberg model**, a systems thinking tool that helps analyse the root causes of environmental and social challenges. The iceberg model encourages learners to distinguish between events (visible crises like pollution or deforestation), underlying patterns (recurring trends), systemic structures (policies, power dynamics, and economic incentives), and mental models (deeply held beliefs and cultural narratives) (Meadows, 1999). For example, when examining plastic pollution, students traced the issue from visible litter to underlying consumption habits, corporate supply chains, and economic policies that prioritize single-use plastics. By understanding these deeper structures, they were better equipped to propose meaningful interventions rather than just addressing symptoms of the problem.

A key objective of these workshops was to empower students to apply their insights to their personal and professional lives. Through structured exercises, they developed action plans tailored to their own spheres of influence. Students were encouraged to adopt an agency-oriented mindset, recognizing their ability to drive change at multiple levels. This approach aligns with research on transformative learning, which highlights the importance of critical reflection and personal agency in driving sustainable behaviour (Mezirow, 1991). By the end of the program, students not only gained a deeper understanding of sustainability challenges but also left with concrete strategies to implement change, reinforcing their sense of responsibility as active contributors to sustainable development.

## 3. Results and Analysis

The program's outcomes were evaluated through a mixed-methods approach, including exit interviews, qualitative analysis of student reflections, and informal observations.

### 3.1. Enhanced Self-Awareness and Personal Growth

Student reflections demonstrated a significant increase in self-awareness, presence, and authenticity, aligning with the **Being** dimension of the IDGs. Students reported a greater understanding of their values, beliefs, and emotional responses to challenging situations. The program's intentional use of reflective practices facilitated personal growth, fostering resilience and adaptability in a foreign environment. These findings support the idea that developing inner capacities is foundational for meaningful engagement with sustainability (Wamsler et al., 2020). This video captures the transformative journey of our Study Abroad program, where students not only explored a new culture, but also deepened their inner development, featuring testimonials that bring to life the impact of integrating the IDG framework into experiential learning.

### 3.2. Development of Critical and Systems Thinking

Through immersive site visits, group discussions, and debriefing sessions focused on local and global sustainability challenges, students demonstrated an expanded capacity for critical thinking and systems thinking, core elements of the Thinking dimension of the IDGs. Students demonstrated a deeper understanding of the interconnectedness of environmental systems and the complexities of sustainability issues. They were able to identify root causes of environmental degradation, explore interdependencies within social-ecological systems, and articulate the tensions between short-term actions and long-term sustainability goals. These insights reflect the competencies described in frameworks such as UNESCO's Education for Sustainable Development (ESD).

### 3.3. Cultivation of Empathy, Compassion, Connectedness and Intercultural Competence

Interactions with local communities, particularly those affected by flooding, fostered empathy and compassion, aligning with the Relating dimension of the IDGs. Collaborative activities enhanced intercultural competence, enabling students to navigate cultural differences and build effective working relationships. These experiences contributed to the development of intercultural competence, which is widely recognized as a key outcome of impactful global education programs (Deardorff, 2006). As one student stated, "Volunteering was a really amazing experience for me. Putting together donations to help the people at Rio Grande do Sul helped me connect to a sense of unity. despite the fact that we're in a different hemisphere. I felt that unifying force of humanity I want to be involved in efforts like that at home moving forward."

### 3.4. Collaborative Competency

Students demonstrated increased competence in cross-cultural communication, co-creation, and mobilization skills, aligning with the **Collaborating** dimension of the IDGs. Group activities that required shared leadership and mutual accountability across diverse perspectives revealed students' growing capacity for inclusive and effective collaboration. These experiences mirror the collaborative skill set outlined in frameworks such as the OECD Learning Compass 2030 and are crucial for navigating complexity in a rapidly changing world.

### 3.5. Increased Agency and Commitment to Sustainability

Hands-on activities and action planning workshops fostered a sense of agency and ownership among students, fostering a commitment to sustainability, aligning with the **Acting** dimension of the IDGs, which emphasizes courage, creativity, optimism, and perseverance on purpose-driven action. Students expressed a strong desire to integrate sustainability practices into their personal and professional lives. One student, in particular, was returning home to an internship with a political figure, and they wanted to incorporate what they had learned into potential policies that this political figure may introduce into legislation. Another student stated, "We did this project about assumptions that we have, about the environment, and about global warming and plastic consumption. And I think we just really need to shift away from the conveniences of plastic now that I've kind of been educated a little bit more. I really know and I can teach other people to start using products that are more sustainable and better for everybody." This supports findings from prior research that suggest experiential learning can serve as a "threshold moment" in shaping future sustainability leaders (Sipos et al., 2008).

## 4. Discussion

The findings of this study suggest that integrating the IDGs framework within experiential study abroad programs can significantly enhance not only cognitive development but also the inner capacities essential for global citizenship and regenerative leadership. The program's emphasis on structured reflection, hands-on activities, and theoretical frameworks facilitated the cultivation of critical inner capacities for sustainable development. One student put it this way, “Just coming on a Study abroad, it overall just really helps you gain cultural awareness. I mean, you can read about it. You can watch the videos and everything, but until you put your shoes in somebody else's customs and everyday life, you're not going to understand it without coming here. You really meet a lot of people who are very welcoming, and that is fairly different from home, all the different traditions, the cultures, seeing all the dancers and the music, and also just seeing how much they care for the people around them and the nature around them. It is very meaningful and I feel like I can take that back home with me."

The findings of this study suggest that integrating the Inner Development Goals (IDGs) into experiential Study Abroad programs can significantly enhance the program's design, enabling students to meaningfully connect inner and outer change. This holistic approach supports a paradigm shift in international education, where success is measured not only by cross-cultural exposure but by the depth of personal transformation and commitment to a just, sustainable future.

### 4.1. Pedagogical Implications

The IDGs provide a valuable framework for designing holistic educational experiences that integrate personal development with academic learning. Structured reflective practice is essential for facilitating deep learning and personal growth in experiential education. Integrating the SDGs into study abroad programs provides a global context for student learning and fosters a sense of responsibility for sustainable development. Finally, it helps provide justification for global travel in a time when all travel could be considered unsustainable. If this model is successful, then all participants will return home with an intent to make a difference in their own communities and have the toolkit with which to realize those changes.

### 4.2. Future Directions

Future program iterations will seek to deepen integration of the IDG framework, explore longitudinal impacts on participants' civic engagement and career trajectories, and contribute to a growing body of evidence on the role of inner development in sustainability education.

Further research is needed to explore the long-term impact of IDG-integrated study abroad programs on student development and career trajectories. Developing standardized assessment tools for evaluating the impact of the IDGs in educational settings is crucial for advancing this field. Expanding the integration of the IDGs into other educational contexts, such as service learning and community engagement programs, can further enhance student development and promote social change.

## 5. Conclusion: Cultivating Global Citizens for a Sustainable Future

The NMC-BE study abroad program demonstrates the potential of integrating the IDGs framework within experiential education to cultivate global citizens who are equipped to

address the complex challenges of the 21st century. By fostering self-awareness, critical thinking, empathy, collaboration, and agency, the IDGs empower students to become agents of positive change, contributing to a more sustainable and equitable future.

As an example of cultivating a deeper meaning, students were directly engaged with a service project in the community. This allowed students to directly interact with local individuals as they orchestrated relief efforts for flood victims. Engaging students in a community project goes beyond typical study abroad experiences. This experience created deep connections for the students and brought them face-to-face with the impacts of climate change. This one seemingly simple experience connected students to local communities, generated an appreciation for the necessity of giving to those less fortunate, and cultivated a sense of compassion and empathy for those affected by the flooding but also for those individuals conducting the relief effort.

To further legitimize this approach, future academic endeavours should document measurable impacts of IDG-based programs on students' personal and professional development. If we, as educators, believe that student experiences in study abroad are, as Mark Twain so eloquently stated, "... fatal to prejudice, bigotry, and narrow-mindedness…", then we need to find a way to continue to offer these experiences, especially to students who have been historically excluded from such opportunities. While these experiences are incredibly important (in the author's opinions), we also must be cognizant of their impact on global sustainability. Therefore, it is paramount that study abroad experiences be constructed for student growth so that they are "worth the cost." This calls for intentional program design that incorporates regenerative principles, partners with local communities, and minimizes environmental impact wherever possible. A student summed it up like this, "I think one of my biggest takeaways from this trip was how lasting an impact instant gratification can have on the world and on our ecosystem, especially the marine animals. I mean we use plastic straws once and they can come from Michigan and end up in the beaches on Brazil and affect Turtles and a lot of us were talking about how as we were picking up trash, each piece we picked up was one last piece an animal could eat or one less piece that could hurt an animal. And just focusing less on being instantly satisfied by everything and focusing more on: what can I do to reduce this consumption?"

While travel itself is not a sustainable practice, it is the hope of the authors that the experience in a synergistic study abroad is so powerful, that the actions and behaviours of the participants are changed so that the impacts of the study abroad radiate out from each participant to a broader audience. To that end, post-program reflection, community engagement, and long-term action plans should be embedded into the design, enabling participants to become multipliers of sustainability-oriented mindsets. Creating student study abroad experiences, from the ground up, centring on the IDGs and experiential learning, may make the cost worth the investment, not only in financial terms but in the cultivation of lifelong changemakers equipped to contribute to a regenerative future.

## References


Adler, C. M. (2024). Re-imagining alternative futures through empowerment. *Challenges, 15*(1), 1–14. https://doi.org/10.3390/challe15010008

Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological Conservation, 241*, 1–13. https://doi.org/10.1016/j.biocon.2019.108224

Ballantyne, R., & Packer, J. (2011). Using tourism free-choice learning experiences to promote environmentally sustainable behaviour: The role of post-visit "action resources." *Environmental Education Research, 17*(2), 201–215. https://doi.org/10.1080/13504622.2010.530645

Chineme, A., Herremans, I. M., & Wills, S. (2019). Building leadership competencies for the SDGs through community/university experiential learning. *Journal of Sustainability Research, 1*(2), 1–33. https://doi.org/10.20900/jsr20190018

Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education, 10*(3), 241–266. https://doi.org/10.1177/1028315306287002

Dewey, J. (1938). *Experience and education*. Macmillan.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist, 34*(10), 906–911. https://doi.org/10.1037/0003-066X.34.10.906

Frank, P., Fischer, D., & Wamsler, C. (2019). Mindfulness, education, and the sustainable development goals. In W. Leal Filho, A. M. Azul, L. Brandli, P. G. Özuyar, & T. Wall (Eds.), *Encyclopedia of the UN Sustainable Development Goals: Quality education* (pp. 1–11). Springer. https://doi.org/10.1007/978-3-319-69902-8_105-1

Inner Development Goals Initiative. (2021). *A framework for personal and collective transformation*. https://innerdevelopmentgoals.org/framework/

Kimura, M., Tateno, Y., Matsui, A., & Nakahara, J. (2022). Student leadership behavior scale (SLBS) in leadership education based on experiential learning in university: Development, validation, and reliability. *Information and Technology in Education and Learning, 2*(1), Trans-p003. https://doi.org/10.12937/itel.2.1.trans.p003

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.

Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. Jossey-Bass.

Nordén, B. (2024). Advancing sustainability through higher education: Student teachers integrate inner development goals (IDG) and future-oriented methodologies. *Challenges, 15*(2), 1–24. https://doi.org/10.3390/challe15020028

Organisation for Economic Co-operation and Development. (2019). *The OECD Learning Compass 2030*. https://www.oecd.org/en/data/tools/oecd-learning-compass-2030.html

Rahmawati, S., Madjid, I., Khoiry, M. A. B., Arafat, M. F., Salsa, N., Hutahean, D. P. S., Istara, I., Tarissa, L. D., Nasir, A. H. M., Akhl, M., Nasution, D. F. K., Claresta, J. B., Muhammad, A. R., & Fairuzzabadi, F. (2023). Enhancing student competencies through entrepreneurship and cultural collaboration: A community engagement approach. *Journal of Community Service and Empowerment, 4*(3), 652–663. https://doi.org/10.22219/jcse.v4i3.29805

Singh, E. P., Doval, J., Kumar, S., & Khan, M. M. S. (2022). Investigating the impact of full-term experiential learning project on management graduates: An emerging economy perspective. *Review of International Business and Strategy, 32*(4), 677–694. https://doi.org/10.1108/ribs-03-2021-0049

Sipos, Y., Battisti, B., & Grimm, K. (2008). Achieving transformative sustainability learning: Engaging head, hands and heart. *International Journal of Sustainability in Higher Education, 9*(1), 68–86. https://doi.org/10.1108/14676370810842193

UNESCO. (2017). Education for sustainable development goals: Learning objectives (M. Rieckmann, L. Mindt, & S. Gardiner, Eds.). UNESCO Publishing. https://doi.org/10.54675/CGBA9153

Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. *International Journal of Sustainability in Higher Education, 21*(1), 112–130. https://doi.org/10.1108/IJSHE-04-2019-0152

Wamsler, C., Osberg, G., Janss, J., & Stephan, L. (2023). Revolutionising sustainability leadership and education: Addressing the human dimension to support flourishing, culture and system transformation. *Climatic Change, 177*(1), 1–23. https://doi.org/10.1007/s10584-023-03636-8

Wamsler, C., Schäpke, N., Fraude, C., Stasiak, D., Bruhn, T., Lawrence, M., Schroeder, H., & Mundaca, L. (2020). Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties. *Environmental Science & Policy, 112*, 227–235. https://doi.org/10.1016/j.envsci.2020.06.005

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The author received no financial support for this chapter's research, authorship, and/or publication.

### Data Availability

No dataset is associated with this article.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Rafaela Rolim, who can be contacted by email via rrolim@brazilianexperience.com.br.

https://doi.org/10.56611/idg.casebook.001.5

# CASEBOOK OF IDG IMPLEMENTION INTO HIGHER EDUCATION

## Lund University and the Inner Development Goals: From individual engagement to global ripple effects

**Christine Wamsler**
Lund University Centre for Sustainability Studies (LUCSUS), Lund University, Sweden
ORCID: 0000-0003-4511-1532

**Pernilla Thellmark**
Lund University School of Economics and Management (LUSEM), Lund University, Sweden
ORCID: 0009-0006-9346-2248

**Fariba Vaziri-Sani**
Lund University Collaboration Office, Lund University, Sweden
ORCID: 0000-0002-9953-2829

**Sarah Emond**
Science Village Scandinavia AB, Lund, Sweden
ORCID: 0009-0002-3148-2869

**Max Liljefors**
Division of Art History and Visual Studies, Lund University, Sweden
ORCID: 0000-0001-6968-375X

**Martin Garwicz**
Birgit Rausing Centre for Medical Humanities (BRCMH), Lund University, Sweden
ORCID: 0000-0002-9795-5537

**Marianne Loor**
Lund University Collaboration Office, Lund University, Sweden
ORCID: 0009-0005-3786-590X

**Lena Christensen**
Education Strategy Support, Lund University, Sweden
ORCID: 0009-0004-1548-2839

https://doi.org/10.56611/idg.casebook.001.5

**Martina Oxling**
Lund University School of Economics and Management (LUSEM), Lund University, Sweden
ORCID: 0009-0000-4618-0498

**Sara Gabrielsson**
Lund University Centre for Sustainability Studies (LUCSUS), Lund University, Sweden
ORCID: 0000-0002-1048-3873

**Abstract**

At Lund University (LU), we are increasingly working with linking inner and outer transformation and the inner development goals (IDGs) for accelerating sustainability across different disciplines, departments and levels. Related work started around ten years ago with the establishment of the Contemplative Sustainable Futures Program, which involves research, education, impact and outreach activities. The latter also involved active engagement with the processes and organisations that led to the creation of the IDGs in 2020. Lund University Centre for Sustainability Studies (LUCSUS) became a founding member of the initiative, and LUCSUS Professor Christine Wamsler has been acting as a senior scientific advisor to the initiative since its very beginning. Over time, LU has increased its engagement in linking inner and outer transformation, and nurturing transformative capacities through the following fields and activities: i) undergraduate and postgraduate education (targeted courses and seminar series), ii) student career services, iii) staff capacity development, iv) strategic collaboration within and outside the university, v) the working environment and wellbeing, vi) scientific knowledge development, and vii) large-scale networking, outreach and impact work for advancing education, research and practice in the field. In this paper we present related activities and ripple effects within LU and beyond, with worldwide impacts. We reflect on the drivers, outcomes, and processes that advance the systematic consideration and institutionalisation of inner dimensions of sustainability and the IDGs, supporting shifts in discourses, paradigms and associated action-taking, from which other institutions can learn.

***Keywords/key phrases*:** Inner transformation, inner transition, existential sustainability, existential resilience, transformative learning, paradigm shift, culture change

## 1. Introduction

In 2026, Lund University (LU) was ranked the world's best university in the field of sustainability by the QS World University Rankings. This recognition also reflects LU's growing efforts to integrate inner and outer transformation for sustainability including the Inner Development Goals (IDGs)–across various disciplines, departments, and institutional levels. In the following sections, we present LU as a case study to explain how this work has evolved and what activities it encompasses.

Our case study illustrates the diverse processes that support the incremental integration and institutionalisation of inner dimensions and IDGs, fostering shifts in discourses, paradigms, and associated action-taking, from which other institutions can learn and find ways to actively

engage in this area. It was developed through a co-creative process of writing and reflection that involved all the initiators of the initiatives presented.

## 2. Starting Point

Targeted work around the intersection between personal inner development, mindsets, culture and systems change for accelerating sustainability started around ten years ago with the establishment of the Contemplative Sustainable Futures Program at Lund University Centre for Sustainability Studies (LUCSUS). LUCSUS is part of the Faculty of Social Sciences, one of nine faculties at LU. It is a world-class, interdisciplinary centre for research, teaching, and societal impact.

The Contemplative Sustainable Futures Program encompasses research, education, impact, and outreach activities, and has played a significant role in shaping the emerging field of inner transformation for sustainability. The latest reports of the Intergovernmental Panel on Climate Change (IPCC, 2022a,b) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2024) reference the Program's scientific work and publications and provide the following summary of the field:

> "Inner transformation for sustainability is an emergent field of research, education and practice (Ives et al., 2023). The aim is to support integrative approaches that link inner and outer dimensions of transformation across sectors and levels to, consequently, enhance individual, collective and planetary wellbeing, regeneration and flourishing (Ives et al., 2023; Wamsler et al., 2021). Inner dimensions are defined as individual and collective mindsets, beliefs, values, worldviews and associated inner capacities/qualities (cognitive, emotional, relational) (ibid). The concept recognises that inner and outer dimensions are never separate but are co-created (ibid). On this basis, inner transformation involves changes in the sphere of human inner dimensions and refers to all kinds of actions at individual, collective and system levels that support integrative changes in views, structures and practices, which address the impacts, drivers and causes of today's polycrisis (…) Related research, practice and education recognise: (…) the possibility to generate inner, transformative capacities/qualities through intentional practices" (IPBES, 2024, Annex to Chapter 3).

These transformative capacities are, in some contexts, also referred to as IDGs. The impact and outreach activities of the Contemplative Sustainable Futures Program have also included active engagement with the processes and organisations that led to the creation of the IDGs in 2020. LUCSUS Professor Christine Wamsler has served as a senior scientific advisor to the initiative since its inception, and LUCSUS is a founding member.

## 3. Undergraduate and Postgraduate Education

### 3.3.1. Sustainability and Inner Transformation

The educational activities of the Contemplative Sustainable Futures Program led, amongst other things, to the development of the "Sustainability and Inner Transformation" course, which was formally launched in 2018. The course forms part of the Master's Program "Environmental

Studies and Sustainability Science" (LUMES) offered by LUCSUS, and it runs annually over a period of three months.

The course was developed over a two-year period; activities included experimenting with new approaches to learning for sustainability, their empirical validation, and the creation of a better scientific foundation through targeted research on inner transformation for sustainability. Related work started in early 2015, when five students worked in close cooperation with Professor Wamsler on the design of an Experimental Learning Lab, which ran between 2015 and 2016. The aim was to explore contemplative approaches in sustainability teaching and learning and assess their value and potential with a view to making them an integral part of the curriculum. An evaluation showed that a majority of students welcomed the integration of contemplative approaches into the Master's Program, and that they had a positive influence on their learning (Wamsler, Hertog et al., 2022; Wamsler, 2019, 2020). Scientific studies conducted under the Program provided support for further development (see Section 7).

The overall purpose of the "Sustainability and Inner Transformation" course is to develop a critical understanding of the potential role of inner dimensions and inner transformation for sustainability. Three guiding questions were defined to help guide related learning:

1. Why is it important to consider inner dimensions in sustainability? (Existing rationales, related theories, concepts, disciplines and fields).
2. What is the potential influence of inner dimensions and inner transformation on sustainability outcomes at different scales? (Existing influences at personal, collective, organisational and system levels, related case studies, theories, concepts, disciplines, and fields).
3. How are the identified rationales and influences reflected in current sustainability research, education and practice? (Concrete activities and gaps).

The course includes a series of lectures and seminars that are intended to explore the role of inner dimensions and their potential to support sustainability. Knowledge from sustainability science, social neuroscience, psychology, behavioural economics, contemplative studies, art and aesthetics, and transformation theories are systematically integrated in the form of lectures and seminars.

Self-reflection and enquiry are supported by a Practice Lab, which includes continuous in-class and home practice. The Practice Lab is intended to be an unconventional classroom component. It disrupts the traditional model of teaching and learning in the hope of offering something that is more transformative for both students and teachers. The exercises build upon each other, progressing from individual to social and environmental dimensions. They include contemplative practices, values and visioning exercises, worldview journeys, and time walks, drawing on diverse fields and sources such as the IDG Toolbox; apps recommended by Student Health Centers (e.g., Headspace, the Mindfulness Daily Program); transformational leadership approaches (Sharma, 2018); the *Education for Sustainable Consumption through Mindfulness Manual* (Fritzsche et al. 2018); Joanna Macy's *The Work That Reconnects* (Macy & Brown, 2014); and teaching manuals that address a range of issues, including climate anxiety (Lewis et al., 2024; Mehlmann et al., 2025).

In addition, the course includes so-called *Councils*. Based on the council methodology, sessions are conducted in a circle with a focus on deep listening and understanding, creating a space for sharing theoretical and personal insights, experiences and feelings in a way that allows participants to be fully present, and learn from each other.

### 3.3.2. Psychology and Climate Change

In 2022, LU created a new undergraduate course to explore inner dimensions, and nurture transformative capacities for accelerating climate action, sustainability and transformation. Financed by LU funds for lifelong learning, the Lund University Department of Psychology and LUCSUS jointly developed a new interdisciplinary course on "Psychology and Climate Change".

The course explores the ways our changing climate affects individuals and groups, including climate distress and its consequences, the psychological and behavioural factors that can drive the climate crisis, and the theories and practices that can support skilful action across individual, collective and system levels. It bridges knowledge, theories and approaches from the fields of psychology and sustainability to integrate inner and outer transformation.

Based on the learnings gained from the "Sustainability and Inner Transformation" course, it includes not only a variety of lectures and seminars, but also a continuous Practice Lab. A novel feature is the "Reflection and action paper", which involves regular journaling for self-reflection, as well as the development, implementation and description of a concrete activity. Students are asked to describe how they plan to translate their learnings into a concrete activity that has the potential to support inner and outer change, by addressing mindsets, behaviour, culture and system transformation in combination. Whilst they are free to use and combine different theories, approaches and tools presented during the course, many have, in the past, used the IDG framework to guide their activities.

The new, experimental approach taken by the "Sustainability and Inner Transformation" course and the "Psychology and Climate Change" program has received increasing interest from both internal and external stakeholders, leading, amongst other things, to increasing student enrolment and a front-page article in one of Sweden's most popular newspapers (Lagercrantz & Uddenfeldt, 2023).

### 3.3.3. Living the Sustainability Idea

In 2023, the LU School of Economics and Management (LUSEM) also launched a course on inner transformation and the IDGs titled "Living the Sustainability Idea" (LSI). LUSEM is one of the nine faculties within LU, it focuses on education and research in business administration, business law, economic history, economics, informatics, and statistics.

The course is a voluntary extracurricular track for students enrolled in the Masters' Programs in "Management" and "International Strategic Management", and it is designed for students who wish to strengthen their inner capacities and develop sustainable leadership skills. Recognizing student interest in developing a "sustainability profile," the Program Directors supported the creation of the LSI course.

The course is structured around the IDG framework, and runs over two semesters, with a maximum of 25 participants. The overall purpose is to prepare students for the future labour

market, equip them to manage change, and drive sustainable development. The focus is on experiential learning, enabling students to practice self-reflection and to both identify and actively cultivate relevant inner capacities. The expected learning outcomes are to:

1. Support students in anchoring themselves in their values to find their own motivation and way of engaging with sustainability.
2. Prepare them for a future job market in which they will have to address change and uncertainty and be able to drive change on an organisational level.
3. Demonstrate that they can translate the sustainability idea into reality by "living it" for a week, and document related lessons regarding both individual and organisational/strategic levels.

Participants are provided with tools drawn from the IDG Toolbox and other sources to practice and enhance their inner capacities, both individually and through group exercises, reflection, company visits and personal coaching. They are also given access to resources such as articles, reports and recordings that present relevant topics. Furthermore, they are asked to apply inner development in practice. This takes the form of a 7-day challenge that requires them to adopt more sustainable behaviours. This might involve altering a daily habit, engaging in sustainability-promoting activities, or mobilising others by creating awareness and engagement. Examples from past courses include hosting dinners that bring together people who do not usually associate with each other, preparing vegetarian meals and initiating discussions about sustainability, abstaining from social media, incorporating meditation into daily routines, or prioritising waste reduction and practices such as "plogging" (jogging while collecting litter). Some students have disseminated their learnings by offering related education and inspiring others, exemplified by visits to primary schools to discuss sustainability issues.

Participants are also encouraged to consider how the insights gained from their cognitive and experiential learnings can translate into an organisational context. This process is supported through visits to companies, where they engage in discussions and reflect on real-world cases alongside industry representatives. To date, the following organisations have participated: Sony, Duni, and Perstorp AB. During these visits, students have the opportunity to meet staff who are responsible for sustainability issues within their respective organisations. These people can provide a comprehensive understanding of the diverse aspects of sustainability their organisations must manage, and they also share their initiatives aimed at fostering inner development among employees. Students are invited to contribute their perspectives and ideas. In some cases, they are tasked with applying the IDGs to a practical case in the company they are visiting.

At the end of the course, participants present insights from their learnings and share their challenges at the "Sustainability Week". This annual event is arranged by LU and Lund Municipality to showcase new, important sustainability work and ideas.

### 3.3.4. New Courses and Programs on Climate Change, Development and Society

In spring 2025, the Lund Master's in "International Development and Management" (LUMID) launched a new course titled "The Development Practitioner". The course focuses on the personal and interpersonal skills, values and attitudes required in development planning and

interventions in diverse organisational settings. It aims to enhance students' reflexive capacities and is designed around the five IDGs clusters.

In autumn 2025, LUCSUS launched a new two-year International Master's Program in "Climate Change and Society" (LUCAS), which will integrate diverse aspects of transformation and the IDGs into the program. LUCAS aims to give students the expertise they need to better-understand and act on societal climate challenges. In this context, one of the expected learning outcomes is to nurture their transformative qualities and skills (cognitive, emotional and relational). This will be achieved, among other things, by embedding IDG-related exercises—such as those from the *Teaching Toolbox for Societal Transitions* (https://transitionmakers.nl/)—to support inner development and self-reflection across all course modules.

### 3.3.5. Arts, Aesthetics and Existential Resilience

The faculty of Humanities has also increasingly engaged in the field of inner transformation for increasing wellbeing and sustainability across scales. Activities relate to undergraduate, postgraduate and PhD education on existential sustainability and existential resilience. Whilst the IDGs are not the focus, they are integrated into related lectures and seminars.

One recent example is the course "Arts, Aesthetics and Existential Resilience", which is offered by the Department for Arts and Cultural Sciences, in cooperation with the Medical Faculty (Centre for Medical Humanities) and the Social Science Faculty (LUCSUS). It ran for the first time in 2025, and it is open to all students at LU.

The course provides students with a theoretical understanding and practical, embodied knowledge of how the arts and aesthetics can be a resource for fostering existential resilience. "Existential resilience" is here understood as an intrinsic human need and ability, to create and experience meaningfulness, beauty, connection, and compassion for ourselves, others and the world around us, in contexts of crises, loss and difficulties. This human ability lies at the core of arts and aesthetics, which therefore carry a potential to support existential resilience. Existential resilience is also central to the academic and professional fields of health and sustainability. Accordingly, the course is interdisciplinary, combining perspectives from the humanities with findings from research, education and practice in medicine, health and sustainability science.

The course discusses different sources of knowledge and practices that have the potential to support existential resilience. It covers topics such as aesthetic empathy and compassion, presence, sense-making, imagination and creativity, which form part of the IDG framework. It also explores how related capacities link to the individual, collective and planetary levels of human life. In this context, art-based approaches and IDG-related tools are introduced.

## 4. Student Career Services

LUSEM Career Services has also started to integrate the IDG framework into their work. This was inspired by the realisation that an increasing number of students want to work with sustainability in the future, but do not know how to approach it. The aim of the centre is to support them in the process of career planning, explore the job market and job search process, and identify their own capacities, motivation and values.

In this context, since the start of 2023 the IDG framework has been used for individual career coaching sessions, helping students to unlock meaningful and sustainable career development. It involves encouraging them to align their career goals with broader societal and environmental objectives, fostering a deeper sense of purpose and responsibility. A tangible example of this is the use of the diverse skills within the IDG framework to assess students' personal strengths and identify areas for growth. Around 800 individual career coaching meetings are conducted per year; whilst they are not all related to the IDGs, related needs, demands and advice have increased in recent years.

In addition to individual coaching, since 2023 the centre has offered a workshop series titled "Professional Skills Development", which is based on the IDG framework. The workshops are open to all students at LUSEM and can accept 20–25 participants. The series is run two to three times per semester. During the workshops, participants are introduced to the IDG framework and engage in discussions on how internal transformation can influence their prospective careers. There are also practical exercises and structured reflections, grounded in the IDG Toolbox. The initial session involves activities aimed at cultivating self-awareness. In the subsequent workshops, participants explore their potential as change agents for sustainable development. For instance, they are presented with a case study illustrating a managerial dilemma: how to motivate decision-making aligned with sustainability principles despite inherent challenges? Working in small groups, they collaboratively analyse the case and identify which transformative capacities from the IDG framework would be essential in addressing such situations.

## 5. Staff Capacity Development and Strategic Collaboration

### 5.1. Leading in Complexity — Supporting Sustainable Collaboration and Leadership

Another section within LU that is increasingly engaging with the IDGs is the LU Collaboration Office, which falls under the "Research, Collaboration, and Innovation" division. It brings together employees with diverse academic backgrounds and expertise in collaboration, project management, and communication. The division supports the university in the development of strategic partnerships and collaboration platforms both internally and externally. Working on behalf of the university's management, the team serves as a gateway to regions, municipalities, businesses, interest organisations, and research funders seeking to engage in large-scale projects and initiatives.

Driven by staff members — one of whom, Fariba Vaziri-Sani, also serves as an academic advisor to the IDGs — the LU Collaboration Office began its active engagement in 2022. It started with an introductory presentation at a retreat meeting, where staff explored the Sustainable Development Goals (SDGs) and their connection to the IDGs. As part of this session, the IDG movie was screened, sparking meaningful reflections. Encouraged by the division head, staff members have since participated in the IDG Summits in Stockholm, followed by sharing insights and experiences with colleagues at departmental meetings. These experiences have deepened interest and increased willingness to integrate related principles into the division's work.

As a first step, staff members have been asked to prepare and launch a study circle titled "Leading in Complexity — IDGs as a Support for Sustainable Collaboration and Leadership", which was launched in mid-2025. The study circle aims to develop and expand the interest in

IDG within the division, LU and beyond. Participants are introduced to the IDG framework, with a particular focus on the "Collaboration dimension", exploring how the cultivation of inner leadership skills and collaborative capacities can contribute to the transformational shifts needed in today's world. In addition, it involves practical exercises and reflective group discussions, enabling participants to apply insights to their professional contexts.

The circle has been developed within a broader learning initiative that included other study circles on themes such as "Appreciative Inquiry" and "Open Space — A Co-Creative Meeting Space". Through this initiative, the division seeks to foster openness, trust and inclusive dialogue, cultivating a sustainable and transformative approach to collaboration. The long-term ambition is to deepen the integration of IDG principles within the division, engage in IDG-related activities such as local IDG-HUBs, and contribute to related collaborative initiatives at LU and beyond, to ultimately support more sustainable collaboration and leadership.

This ambition and vision, backed by the Head of the LU Collaboration Office, also led to the launch of a new strategic partnership on existential resilience and sustainability at the end of 2025. The collaboration involves the Social Science Faculty (particularly LUCSUS), the Church of Sweden, and several other actors to advance both institutionalization and impact-oriented work. The partnership has been formally integrated into the Collaboration Office's operational plan, ensuring effective implementation and sustained long-term engagement. As part of this effort, two staff members from the LU Collaboration Office are participating in the IDG Ambassador Program, with LU covering the associated costs, to gain relevant knowledge and practical experience.

### 5.2. LU Strategic Collaboration Initiatives with Internal and External Stakeholders

LU provides financing for strategic collaboration initiatives that explore the link between inner development, collective and planetary wellbeing and sustainability. One of the university's tasks is to help to address major societal challenges. This requires broad interdisciplinary collaboration both within academia and with external organisations. Against this background, LU is supporting strategic collaboration initiatives that aim to create meeting places for knowledge development and engagement in selected areas. All of these initiatives are interdisciplinary, involving researchers from multiple faculties as well as external partners based in Sweden and globally. In this context, LU has, for example, selected the "Relentless Existential Threats" project (2023–2024) and the "Existential Resilience" collaboration initiative ERiCi (2023–2025) for funding (cf. Malmström, 2023; Stålbrand et al., 2025).

ERiCi has led to the development of new educational programs (see Section 3.6), research initiatives, and ongoing partnerships. It brings together a broad range of actors from within and beyond academia to support individual, collective and planetary wellbeing, particularly in the context of education and health. It focuses on how to prevent and address the increase in existential and work-related stress among people working in healthcare, other service professions, and society at large. In this context, the aim is to explore how contemplation, aesthetics and compassion, aspects that form part of the IDG framework, can help counter stress and feelings of meaninglessness, and promote a more meaningful, sustainable life.

In today's society, people whose work involves helping and supporting others are severely affected by increasing existential threats and associated stress. This is often related to feelings of meaninglessness and disconnection from self, the wider community and the world as a whole.

Apart from human suffering, stress-related mental illness is also costly for society, for example in terms of sick leave. Against this background, existential resilience can be understood as uniting outer and inner sustainability, for instance by nurturing intrinsic human capacities to cope with and overcome existential crises. At the core of these capacities is the ability to experience and understand oneself as part of the larger community – both human and ecological – and ultimately the interdependency and entanglement of personal, collective and planetary wellbeing. Existential resilience thus brings together personal and societal development; it is about fostering ways to find meaning and beauty in life, even when it is difficult, and to recognise one's role and agency in promoting sustainability in both personal and professional life.

External practice partners include governmental and non-profit actors from Sweden and Denmark, including the City of Lund, Region Skåne, ARNA-Art and Nature, the Biosphere reserve Storkriket, Konstfrämjandet Skåne, Lunds Fontänhus, Musik i Syd, the National Centre for Arts and Mental Health, Denmark, Sisters Hope, Denmark, and the Church of Sweden.

As the initiative has unfolded, many partners have offered seminars and workshops. For example, the Church of Sweden ran a session dedicated to the IDGs and the IDG Toolbox and described how the toolbox has been adopted by the church in their recent publication titled *The human factor* (Repka et al., 2024). In this publication, the IDGs are used as a framework to communicate the importance of Christian values in religious, secular and scientific spaces. It is argued that this framework can create a shared language and understanding for collaboration on critical issues and sustainability challenges such as climate change and social justice.

### 5.5.3. Train the Trainers for Transformative Education and Research

Through support from LU leadership, the ERiCi initiative received follow-up funding via the *Strategy for Cultural Collaboration 2018–2026* to develop a new capacity-building course for LU staff. The course explores how teaching and research can engage more deeply with societal needs by drawing on artistic practices and related inner processes and approaches, including the IDGs. Its aim is to foster perspective-shifting knowledge, learning, and experiences that ultimately support well-being and sustainability.

## 6. The Working Environment and Wellbeing

Other initiatives at administration, policy and leadership levels seek to explore the issues of inner transformation, and the use of the IDGs for accelerating wellbeing and sustainability across scales. Here, the focus is on discussions about how to integrate inner capacities, such as the IDGs, and develop new policies to improve the working environment of staff.

LU staff with experience in this field have, for instance, been invited to advise on a new merits project, which aims to offer recommendations regarding how merit and qualifications should be defined when making teaching position appointments. The project's mandate emphasises that the merit model should focus on competencies in research, teaching, collaboration and leadership, as well as the capacity of staff to contribute to a positive working and learning environment.

In this context, it explores which qualifications and inner capacities applicants can, or should, demonstrate, and how recruitment committees should evaluate them. Accordingly, the project proposes a shift in understanding—it argues that "merits" should be understood as evidence of

both qualifications and inner, transformative capacities. When its work is complete, the project will provide recommendations regarding support materials tailored to different stakeholders, such as teaching nomination committees, external experts and applicants.

## 7. Scientific Knowledge Development

Over the past 10 years, approximately 50 scientific articles, book chapters, and policy reports have been published under the Contemplative Sustainable Futures Program (see www.contemplative-sustainable-futures.com/general-3-1, e.g., Ives et al., 2023; Wamsler et al., 2020, 2021; Wamsler, Mulligan et al., 2022; Wamsler, Osberg et al., 2022, Wamsler, Osberg et al., 2024; Wamsler and Bristow, 2022; Woiwode et al., 2021;). These publications have significantly advanced the field and have been widely adopted internationally by scholars, practitioners, and key policy stakeholders (e.g., UNDP, IPCC, IPBES, the Club of Rome). Related research involved investigating some of the above-presented courses, including the "Sustainability and Inner Transformation" course (see Section 3). These evaluations generate valuable insights into the long-term benefits of integrating inner dimensions into educational activities and sustainability across individual, collective and system levels. Other research included assessments of IDG-focused education and leadership courses offered by private sector and non-profit organisations, leading to theory and guidance on how to design courses that integrate inner and outer dimensions for accelerating sustainability and the achievement of the SDGs (Bell et al., 2023; Ramstetter & Wamsler, 2023; Wamsler, Osberg et al., 2024).

Other departments and faculties are increasingly engaged in research and collaborative projects aimed at exploring how inner transformative capacities, such as the IDGs, can be effectively integrated into education at all levels—from schools to universities. Examples include the aforementioned ERiCi project and three ERASMUS+ initiatives, CLARITY, PhilosophyGyms, and ALIGN. The CLARITY project (2023–2026) is a transformative initiative that reimagines climate resilience education for children and young people. By operationalizing the GreenComp Framework, the project emphasises the need to support transformative capacities, ensuring that climate education extends beyond factual knowledge to include emotional resilience, creativity and ecological connectedness (Wamsler, Simon et al., 2024). CLARITY has developed a practical, ready-to-use Educators' Toolbox, which also makes reference to some of the IDG Toolbox exercises (Simon et al. 2025). The PhilosophyGyms project (2024–2027), which includes the IDG initiative as a cooperating partner, focuses on co-developing integrated leadership development with and for small and medium enterprises (SMEs) (Ilcheva et al., 2025). ALIGN, which began in 2025, is closely connected to the global "University Coalition for Student Inner Development" for societal transformation (see Section 8.1).

Across most disciplines, research interest and engagement in existential sustainability, inner transformation, transformative capacities and the IDGs seems to be increasing, extending to fields such as urban planning, governance, politics, theology, philosophy, health, palliative care, ethics, and law.

## 8. Large-scale Networking, Outreach and Impact Work

### 8.1. The International University Coalition for Student Inner Development

Over time, IDG-related engagement has expanded far beyond LU, influencing change in educational narratives, discourses and approaches. Since 2024, LUCSUS has, for example, co-

created the global "University Coalition for Student Inner Development" (www.universityinnerdevelopment.org), initiated by the IDG Foundation and Rflect (www.rflect.ch). The Coalition brings together pioneering universities—including LU (Sweden), NTNU (Norway), Esade Business School (Spain) and the University of Amsterdam (the Netherlands). The aim is to structurally embed inner development into higher education to accelerate wellbeing and sustainability. The long-term goal is to ensure that every student graduates with a lifelong habit of inner development, empowering them to sustainably address today's increasing and intertwined societal crises.

The activities of the Coalition include the development of scalable, inter-curricular approaches that build the essential inner capacities needed to tackle today's global challenges. They includes creating shared learning formats, supporting curriculum reform processes, and developing open-source impact measurement tools.

In 2025, the Coalition launched its first jointly-implemented activity, an online training. In addition, it secured funding for its continued work by successfully developing an Erasmus+ project proposal (ALIGN), which was awarded and commenced in October 2025, with LUCSUS serving as the project coordinator.

### 8.2. Outreach and Impact through Cooperation with External Key Players

In recent years, network and outreach activities related to inner development and the IDGs for accelerating sustainability have increased substantially, particularly in the context of existing research projects and the Contemplative Sustainable Futures Program (see also Sections 2 and 7). They include Memorandums of Understanding (MoUs) with organisations such as the United Nations Development Program (UNDP) and its Conscious Food Systems Alliance (CoFSA), the Inner Green Deal, and the United Nations Office of the High Commissioner for Human Rights (OHCHR).

In addition, LU collaborates closely on activities related to the planned Science Centre in Lund. The Centre is currently being developed by Science Village Scandinavia AB, and is jointly owned by LU, Lund Municipality, and the Region of Skåne. The idea is to launch a long-term collaboration that aims to systematically integrate the IDGs into all internal and external operations, and educational activities.

Once all of the relevant agreements have been finalised, the planned Science Centre will be built. Covering an area of 7,000 $m^2$, people of all ages will be able to explore and learn about science and technology through interactive exhibits, demonstrations, creative workshops and other engaging activities. Over 200,000 visitors are expected annually from all sectors of society, including schoolchildren, families, businesses, the public sector and academia. The purpose of the Centre is to facilitate life-long learning for a sustainable future, and to invite people from all walks of life to learn about and engage with research and development in the region.

As sustainability is the overarching theme, addressing the link between inner and outer dimensions and transformation is key. The intention is to systematically integrate both the IDGs and the SDGs into internal management activities and the Centre's operations from the start, making it a showcase for how to develop and run a sustainable organisation.

Together with partners from education, public and business sectors, the Science Centre team will create exhibitions and educational activities that integrate the SDGs; at the same time, the IDGs will guide engagement, by inviting visitors to feel, learn, do and act, linking minds, hearts and hands.

The Science Centre will include large exhibition and event areas, a planetarium, restaurants and an auditorium. Different areas within the building will be designed to inspire and engage with the five IDG dimensions (being, thinking, relating, collaborating and acting) and related aspects of sustainability. In their role as Senior Scientific Advisor for Sustainability, LUCSUS Professor Wamsler will be the scientific link between the Science Centre and LU, providing guidance and advice regarding the aforementioned activities.

## 9. Discussion and Conclusions: From Individual Engagement to Pilots, Institutionalisation and Lasting Impact

This case study highlights the following developments, processes and outcomes from working with the IDGs and inner-outer transformation for sustainability:

1. **Increased engagement across disciplines and levels:** In recent years, LU has increased both its implicit and explicit engagement with the IDGs across various disciplines, faculties and cross-faculty management divisions. This reflects a growing recognition of the importance of integrating inner development with sustainability efforts throughout the institution.

2. **Emerging themes:** LU's engagement with the IDGs has emerged in relation to a variety of concepts and themes, including inner transformation, existential resilience, existential sustainability, existential health, leadership development, self-leadership, career development, medical humanities, aesthetics, psychological resilience and wellbeing. This demonstrates the university's wide-ranging approach to incorporating the IDGs into its sustainability efforts.

3. **Growth from individual efforts to institutional change:** Many of the described initiatives began with courageous individual champions and small-scale pilots, but they are now expanding into larger, interconnected efforts. Many of the presented activities today also involve the initiators of other initiatives, making them increasingly interconnected. This allows for continuous learning, networking and the emergence of ripple effects, both within and beyond LU.

4. **Part of a larger movement:** The presented initiatives at LU can be seen as being part of, and contributing to, a global movement that links inner transformation with sustainability. This positions LU as a key player in advancing sustainability through integrated inner, behavioural, collective and system transformation. Work at LU has been pivotal in advancing research in this area, leading to wide-ranging impacts.

5. **Ripple effects:** Some of the outcomes and impacts of the presented initiatives include the development of innovative courses and methodologies by other academic institutions, private companies and non-profits, to explore inner dimensions as a key element of sustainability work and education (cf. Janss et al., 2023; Lewis et al., 2024; Mehlman et al., 2025; Simon et al., 2025). There is also increasing recognition of the field by global key players such as the Club of Rome, UNDP, IPCC and IPBES (cf. Bristow et al. 2024; IPCC, 2022a,b, IPBES, 2024; Legrand et al., 2022).

6. **Ongoing research, monitoring and evaluation:** Continued research is crucial to understanding the long-term impacts of the presented initiatives. Monitoring and evaluation will help refine the approach to supporting inner and outer transformation processes through research, education, collaboration and outreach activities.

7. **High-level policy support, continuous financing and commitment:** LU has made significant strides in linking inner and outer transformation to accelerate sustainability, but there is still much to learn and institutionalise to fully integrate these dimensions across the university and beyond. High-level policy support, continuous financing and commitment are required to support new activities, advance the crosslinking of existing initiatives, and ensure the systematic institutionalisation that is needed to address today's polycrisis.

Each year, new initiatives are launched, forming part of an emerging movement which lies at the nexus of transformative education, research and social change that is based on building a more conscious society. As scholars, researchers and educators, we can choose how we position our work with respect to (neoliberal) institutional norms, growing worldwide resistance to these norms, and more integral approaches. The field of integrated inner-outer transformation for sustainability remains underexplored, but it is highly relevant for the achievement of all of the SDGs, particularly the global education goal (SDG 4) that aims to ensure that all learners are capable of contributing to sustainable development (Target 4.7).

The notions of interconnectedness and individuals as active change agents are by no means widely accepted—in fact, they conflict with some dominant belief systems and worldviews (Leichenko & O'Brien, 2024; Ives et al., 2023). They represent, in themselves, a fundamental challenge, calling for transformative learning and a questioning of values and commonly held assumptions about human–environment relationships (Ives et al., 2017; Wamsler, Osberg et al., 2022). Related approaches, however, are not always easy to pursue within current learning and research environments. Deliberate transformation calls for deeper inquiry into current meaning-making mechanisms, not only within society, but also within our education, research, and university structures themselves.

## References

Bristow, J., Bell, R., Wamsler, C., Björkman, T., Tickell, P., Kim, J., & Scharmer, O. (2024). *The system within: Addressing the inner dimensions of sustainability and systems change* (Earth4All Deep-Dive Paper No. 17). The Club of Rome. https://www.clubofrome.org/publication/earth4all-bristow-bell/

Fritzsche, J., Fischer, D., Böhme, T., & Grossman, P. (2018). *Education for sustainable consumption through mindfulness: Active methodology toolkit 9*. PERL—Partnership for Education and Research About Responsible Living. http://achtsamkeit-und-konsum.de/wp-content/uploads/2018/06/Toolkit_EN_online-1.pdf

Intergovernmental Panel on Climate Change. (2022a). *Climate change 2022: Impacts, adaptation and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (H.-O. Pörtner, D. C. Roberts, M. Tignor, E. S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, & B. Rama, Eds.). Cambridge University Press. https://doi.org/10.1017/9781009325844

Intergovernmental Panel on Climate Change. (2022b). *Climate change 2022: Mitigation of climate change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (P. R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, & J. Malley, Eds.). Cambridge University Press. https://doi.org/10.1017/9781009157926

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (2024). *Transformative change assessment report: Thematic assessment report on the underlying causes of biodiversity loss and the determinants of transformative change and options for achieving the 2050 vision for biodiversity* (K. O'Brien, L. Garibaldi, & A. Agrawal, Eds.). IPBES Secretariat. https://doi.org/10.5281/zenodo.11382215

Ilcheva, D., Balakchieva, T., Wamsler, C., Mitrut, K., Mazurek, A., Gomes, B., & Böhme, J. (2025). *Exploring inner, philosophical dimensions in SMEs: Concepts, practices and education programs* (Research report for the ERASMUS+ PhilosophyGym Project). Fachhochschule des Mittelstands.

Ives, C., Giusti, M., Fischer, J., Abson, D., Klaniecki, K., Dorninger, C., Laudan, J., Barthel, S., Abernethy, P., Martín-López, B., Raymond, C., Kendal, D., & von Wehrden, H. (2017). Human–nature connection: a multidisciplinary review. *Current Opinion in Environmental* Sustainability, 26–27, 106–113. https://doi.org/10.1016/j.cosust.2017.05.005

Ives, C. D., Schäpke, N., Woiwode, C., & Wamsler, C. (2023). IMAGINE sustainability: Integrated inner-outer transformation in research, education and practice. *Sustainability Science, 18(6)*, 2777–2786. https://doi.org/10.1007/s11625-023-01368-3

Janss, J., Wamsler, C., Smith, A., & Stephan, L. (2023). *The human dimension of the Green Deal: How to overcome polarisation and facilitate culture and system change*. Inner Green Deal gGmbH & Lund University Centre for Sustainability Studies. https://www.contemplative-sustainable-futures.com/_files/ugd/4cc31e_32a45e74d07a4b179d159f0deb9f5af5.pdf

Leichenko, R., & O'Brien, K. (2024). Climate and society: Transforming the future. Polity.

Lewis, A. L., Providoli, I., Sundermann, A., Frank, A., Fischer, D., Frank, P., Studer, M., Tormey, R., Trechsel, L. J., & Wamsler, C. (2024). *Addressing inner dimensions for sustainability in higher education: A facilitator guide*. Centre for Development and Environment, University of Bern.

Macy, J., & Brown, M. Y. (2014). *Coming back to life: The updated guide to the work that reconnects*. New Society Publishers.

Malmström, B. (2023). The inner journey towards a sustainable future. Lund University. www.lunduniversity.lu.se/article/inner-journey-towards-sustainable-future

Mehlmann, M., Diamantas, N., Ducros, G., Karlsson, C., Kiss, B., Maurabakken, M., Simon, L., Strøm Flugsrud, S., Zamora, C., & Wamsler, C. (2025). *Teacher's Guide: Learning for Transformative Climate Resilience.* CLARITY – Transformative Climate Resilience Education for Children and Youth: From Climate Anxiety to Resilience, Creativity and Regeneration. Lund University, Sweden. ISBN 978-91-8104-587-1. Accessible under https://transforming-climate.education/

Repka, A., Svensson, L., & Bissmont, M. (2024). *Den mänskliga faktorn [The human factor]*. Church of Sweden, Diocese of Lund. https://www.svenskakyrkan.se/lundsstift/nyheter/den-manskliga-faktorn-nytt-material-for-inre-hallbarhet

Rupprecht, S., & Wamsler, C. (2023). *The Global Leadership for Sustainable Development (GLSD) program: Inner development for accelerating action towards the Sustainable Development Goals*. Evaluation report written for the Inner Development Goals (IDGs) Initiative and the Templeton World Charity Foundation. Published by the Inner Green Deal and Lund University Centre for Sustainability Studies (LUCSUS), Lund, Sweden. https://innerdevelopmentgoals.org/resources/

Lagercrantz, A., & Uddenfeldt, T. (2023). *Vi har missat att lyfta de mänskliga egenskaperna [We have missed highlighting our human, inner qualities].* Svenska Dagbladet, 26.01.2023. www.contemplative-sustainable-futures.com/_files/ugd/4cc31e_740f791f305d473a831d70d5f86ba936.pdf and short version: www.svd.se/a/dwLA5o/inner-development-goals-inre-omstallning-kravs-for-att-bromsa-klimatkrisen

Legrand, T., Jervoise, A., Wamsler, C., Dufour, C., Bristow, J., Bockler, J., Cooper, K., Corção, T., Negowetti, N., Oliver, T., Schwartz, A., Steidle, G., Taggart, S., Søvold, L., & Wright, J. (2022). *Cultivating inner capacities for regenerative food systems: Rationale for action*. United Nations Development Programme (UNDP). https://www.contemplative-sustainable-futures.com/_files/ugd/4cc31e_b5718ed24fa54a868896518497b02a6e.pdf

Sharma, M. (2018). *Radical transformational leadership: Strategic action for change agents*. North Atlantic Books.

Simon, L., Diamantas, N., Ducros, G., Karlsson, C., Kiss, B., Mehlmann, M., Skaare, M., Zamora, C., & Wamsler, C. (2025). *Teacher's Toolbox: Learning for Transformative Climate Reslience.* CLARITY – Transformative Climate Resilience Education for Children and Youth: From Climate Anxiety to Resilience, Creativity and Regeneration. Lund University, Sweden. ISBN 978-91-8104-587-X. Accessible under https://transforming-climate.education/

Stålbrand, I. S., Brissman, I., Nyman, L., Sidenvall, E., Tranberg, M., Wallin, A., Wamsler, C., & Jacobsen, J. (2025). An interdisciplinary model to foster existential resilience and transformation. *Challenges, 16(1),* 5. https://doi.org/10.3390/challe16010005

Wamsler, C. (2019). The role of individual inner dimensions and transformation in sustainability research and education. In W. Leal Filho & A. Consorte-McCrea (Eds.), *Sustainability and the humanities* (pp. 359–373). Springer.

Wamsler, C., Schäpke, N., Fraude, C., Stasiak, D., Bruhn, T., Lawrence, M., Schroeder, H., & Mundaca, L. (2020). Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties. *Environmental Science & Policy, 112*, 227–235. https://doi.org/10.1016/j.envsci.2020.06.005

Wamsler, C., & Bristow, J. (2022). At the intersection of mind and climate change: Integrating inner dimensions of climate change into policymaking and practice, *Climatic Change, 173(7).* https://doi.org/10.1007/s10584-022-03398-9

Wamsler C., Schäpke N., Fraude C., Stasiak D., Bruhn T., Lawrence M., Schroeder H., & Mundaca L. (2020). Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties, *Environmental Science and Policy, 112*. 227–235. https://doi.org/10.1016/j.envsci.2020.06.005

Wamsler, C., Osberg, G., Osika, W., Hendersson, H., & Mundaca, L. (2021). Linking internal and external transformation for sustainability and climate action: Towards a new research and policy agenda. *Global Environmental Change, 71, 102373*. https://doi.org/10.1016/j.gloenvcha.2021.102373

Wamsler, C., Hertog, I., & Di Paola, L. (2022). Education for sustainability: Sourcing inner qualities and capacities for transformation. In E. Ivanova & I. Rimanoczy (Eds.), *Revolutionizing sustainability education: Stories and tools of mindset transformation* (pp. 49–62). Routledge.

Wamsler, C., Mulligan, J., Bukachi, V., & Mumbi, C. (2022). Activating transformation: Integrating interior dimensions of climate change in adaptation planning. *Climate and Development*. https://doi.org/10.1080/17565529.2022.2089089

Wamsler, C., Osberg, G., Panagiotou, A., Smith, B., Stanbridge, P., Osika, W., & Mundaca, L. (2022). Meaning-making in a context of climate change: Supporting agency and political engagement. *Climate Policy*. https://doi.org/10.1080/14693062.2022.2121254

Wamsler, C., Janss, J., & Bell, R. (2023). *Evaluation summary of the Global Leadership for Sustainable Development (GLSD) program: An Inner Development Goals (IDGs) Initiative funded by the Templeton World Charity Foundation*. Published by the Inner Green Deal and Lund University Centre for Sustainability Studies (LUCSUS), Lund, Sweden. https://innerdevelopmentgoals.org/resources/

Wamsler, C., Osberg, G., Janss, J., & Stephan, L. (2024). Revolutionising sustainability leadership and education: addressing the human dimension to support flourishing, culture and system transformation. *Climatic Change 177, 4*. https://doi.org/10.1007/s10584-023-03636-8

Wamsler, C., Simon, L., Ducros, G., & Osberg, G. (2024). *Transformative climate resilience education for children and youth: From climate anxiety to resilience, creativity and regeneration*. Literature review for CLARITY, ERASMUS+ Project 2023-1-SE01-KA220-SCH-000158705. Lund University, Lund, Sweden. http://lucris.lub.lu.se/ws/portalfiles/portal/197488523/A2.Literature_Review.Framework.FINAL.10.10.2024.pdf

Woiwode, C., Schäpke, N., Bina, O., Veciana, S., Kunze, I., Parodi, O., Schweizer-Ries, P., & Wamsler, C. (2021). Inner transformation to sustainability as a deep leverage point: Fostering new avenues for change through dialogue and reflection. *Sustainability Science, 16*(3), 841–858. https://doi.org/10.1007/s11625-020-00882-y

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The research was supported by the Existential Resilience project (ERiCi), funded by Lund University, as well as two projects funded by the Swedish Research Council Formas: (1) Mind4Change (grant number 2019-00390; full title: Agents of Change: Mind, Cognitive Bias and Decision-Making in a Context of Social and Climate Change), and (2) TransVision (grant number 2019-01969; full title: Transition Visions: Coupling Society, Well-being and Energy Systems for Transitioning to a Fossil-free Society).

### Data Availability

No dataset is associated with this chapter.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities, that is: the staff involved in the mentioned initiatives, to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Christine Wamsler who can be contacted by email via christine.wamsler@lucsus.lu.se

https://doi.org/10.56611/idg.casebook.001.6

# CASEBOOK OF IDG IMPLEMENTION INTO HIGHER EDUCATION

## From *Self* to *World*: Implementing the Enlace Metro for Inner and Relational Development in Higher Education

**Ricardo Dutra Gonçalves**
Aalto University, Helsinki, Finland
ORCID: 0000-0001-5805-7067

**Raquel da Silva Barros**
Centro Universitário FACENS, Sorocaba, Brazil
ORCID: 0000-0003-3268-0904

**Maysa Mazzon Camargo**
Centro Universitário FACENS, Sorocaba, Brazil
ORCID: 0009-0007-5385-1326

**Sara Arruda do Carmo**
Centro Universitário FACENS, Sorocaba, Brazil
ORCID: 0009-0007-4739-7729

**Taynara Silva Santos**
Centro Universitário FACENS, Sorocaba, Brazil
ORCID: 0009-0002-0829-1538

**Thaís Paoliello**
Make Aware Lab, São Paulo, Brazil
ORCID: 009-0004-9152-093X

**Abstract**

Higher education often prioritizes technical, scientific, and artistic skills while overlooking inner development. This paper shares insights from applying the Inner Development Goals (IDG) in higher education through a five-year case study of Enlace Metro, a university-wide pedagogical strategy at Centro Universitário Facens in Sorocaba, Brazil. Enlace Metro is a metaphorical, self-guided learning pathway set within an imaginary city divided into three zones (Me and Myself, Me and Others, and Me and the World) where each 'metro station' represents an IDG competency guiding students through experiential learning activities. As part of the broader Enlace System, this model promotes social, emotional, and relational development within and beyond the academic community, using a methodology that blends Awareness-Based Design and practice-based design research, including co-design workshops, surveys, prototyping, and classroom observations. Findings show that while students

participated, their motivation was often extrinsic, and faculty felt unprepared to facilitate inner development learning, indicating that mandatory, self-directed activities alone are insufficient. Effective implementation requires professional development, active facilitation, and responsive interventions. This paper advocates for a pedagogical shift from individual well-being to a collective, relational approach to inner development, emphasizing the dynamic interplay between awareness and action, where real-world collaborative projects foster meaningful engagement and reflection. The study also highlights tensions between rigid institutional structures and flexible, transformative learning pathways, raising questions about how universities can support student-driven journeys aligned with the Sustainable Development Goals (SDGs). These insights offer valuable pedagogical guidance for educators, curriculum designers, and university leaders seeking to create learning environments that integrate inner development and outer change.

***Keywords***: Inner Development Goals (IDG), transformative learning, relational pedagogy, awareness-based design, higher education innovation, student-centred learning.

## 1. Introduction: Preparing for the Journey

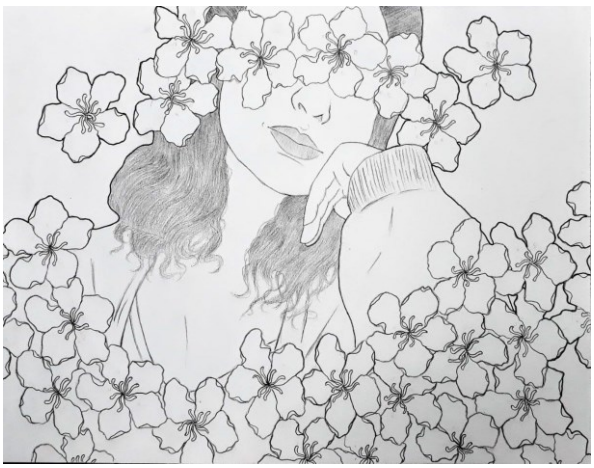
Higher education is recognized for developing technical, scientific, and even artistic skills—but it often overlooks the importance of what is increasingly being referred to as inner development (Barrett, 2017; Jordan et al., 2020; Palmer, 1998). In this paper, we draw upon inner development as the continuous cultivation of social, relational, and emotional capacities among students, faculty, and the wider academic community to navigate the complexities of a changing world (Hayashi & Gonçalves, 2023; Scharmer, 2016). In the context of global, social, and environmental challenges, we argue that inner development is a "systemic lever" (Meadows, 2008) for transforming not only individuals but also communities, cities, and countries (Engert et al., 2023; Seligman, 2011; Wamsler et al., 2020). While the term itself remains emergent, contested, and not uniformly defined or measured, in this paper we build upon our own practice to explore inner development through two interrelated concepts: togetherness and relational well-being.

By togetherness, we allude to the simple, ordinary, and immediate qualities of being with others. In our practice, we have explored togetherness through three primary dimensions (Gonçalves, 2024; Hayashi, 2021): the embodied awareness and presence individuals bring into relational spaces; the direct, felt experience of being in relation; and the emerging collective creativity that arises from groups being together (Berger et al., 2018; Gonçalves, 2024; Hayashi, 2021; Lueke & Gibson, 2016; Oyler et al., 2022). These dimensions help us understand togetherness as a dynamic process through which inner transformation unfolds and becomes visible in intentional, collective action.

In higher education, togetherness may also relate to the strengthening of the university's social fabric—that is, the evolving web of relationships and interactions within the academic community. In this paper, we argue that the social fabric is shaped not only by individual connections but by the collective awareness, presence, and relational sensibility that students, faculty, and staff bring to shared spaces, enabling collaboration and creativity (Hayashi, 2021; Hayashi & Gonçalves, 2023; Pomeroy & Herrmann, 2023; Scharmer, 2016).

In addition to togetherness, our approach to inner development is also informed by theories of relational well-being. Drawing on theoretical work in this area, we understand well-being not as an individual possession or personal achievement, but as a dynamic process that emerges within and through relationships—with others, with environments, and within broader social contexts (Gergen, 2009; White, 2010). This perspective emphasizes that well-being is co-constructed and sustained in interaction, rather than developed in isolation. Furthermore, we engage with the idea of well-being as an unfolding, open and emergent phenomenon (Bilbao-Nieva & Meyer, 2024)—one that can resist fixed definitions or static measurement and instead invites an ongoing attentiveness to the conditions that support life-affirming connection and growth.

FIGURE 1. "INNER DEVELOPMENT" ACCORDING TO A STUDENT AT CENTRO UNIVERSITÁRIO FACENS, SOROCABA, BRAZIL



Source: Pedro Fortes, 2019

This paper explicitly considers inner development through the lens of the Inner Development Goals (IDG) framework, which connects personal, social, and emotional growth to the Sustainable Development Goals (SDGs). Centred on the premise of "inner growth for outer change," the IDG framework emphasizes five key dimensions: being, thinking, relating, collaborating, and acting (Inner Development Goals, n.d.). We argue that social, emotional, and relational capacities must be integrated—not separated—from technical education focused on knowledge, skills, and professional competencies (Ahmed, 2014; Anzaldúa, 2015; Robinson, 2006). This raises key questions: What forms of inner development are essential in academic settings? And how can we prepare students not only for the job market but also for the complex social, environmental, and relational contexts they are a part of?

This paper draws on our work with students at Centro Universitário Facens (Sorocaba, Brazil; 2019–2024), following a request from university leadership to address students' social and emotional needs. In response, we established the Enlace Lab — Laboratory for Emotional Collaboration — as a space to engage with these challenges. The lab works with undergraduates across 18 programs spanning Engineering, Technology, Architecture, Urbanism, and Health. During the early phases of this laboratory's work, by listening closely to students' voices and experiences, we understood some of their key needs, such as recognizing diverse learning styles, balancing academic and personal demands, fostering belonging, building trust with faculty, and expressing ideas that impact their communities and the wider world.

While the university leadership initially focused on students' social-emotional needs, our experience revealed the need for a broader, systemic approach—one that includes faculty and the wider academic community. Unlike many social-emotional learning initiatives (CASEL, 2020; Durlak et al., 2011), the Enlace Lab centres the relational and systemic dimensions of inner development, rather than solely individual competencies. This way, its key innovation lies in fostering a collective, participatory process that treats inner development as a relational, ongoing, emergent, and contextually grounded practice, aligned with the complexities of academic life and community well-being.

## 2. Research Objectives: Destination

In this paper, we explore the following research question: *How might we apply the Inner Development Goals (IDG) in higher education*, with a special focus on supporting students in moving from individual well-being to sustained collective action—both within the university and in the wider community?

The secondary questions include: (I) How might students become aware of skills, competencies and qualities of inner development?; (II) How might the IDG be introduced as a pedagogy?; and (III) What challenges and possibilities arise from the implementation of the IDG in a university context?

### 2.1. Methodology: Map and Compass

Our research methodology brings Awareness-Based Design (ABD) and Practice-Based Design Research to higher education. Developed by Dutra Gonçalves in his doctoral thesis, *Awareness-Based Design: The Role of Making Aware for a Transformative Learning Practice*, ABD is both a social design methodology and a living curriculum grounded in the belief that becoming aware of the inner dimension of experience is fundamental for effecting systemic change. By *living curriculum*, we mean one that is not static or fixed, but continuously changing and evolving (Greene, 1978).

Rooted in transformative learning (Dirkx et al., 2006; Grocott, 2022), ABD integrates design research, embodied awareness, and relational practices (Hayashi, 2021; Mattelmäki, 2006). Its methods draw from social arts—collective, socially engaged artistic approaches (Beuys & Harlan, 2004; Hayashi, 2021)—and mindfulness-awareness practices (Kabat-Zinn, 1994; Trungpa, 1996; Yongey & Tworkov, 2014). As a pedagogical method, ABD cultivates literacies, comprehensions, and sensibilities (Rinaldi, 2009) that support creative awareness of non-verbal, embodied, and relational aspects of our lived experiences (Gonçalves & Grocott, 2024). This includes attentiveness to thoughts, mindsets, beliefs, values, emotions, and sensations.

ABD's primary research method is *awareness-based prompts*—non-intrusive pedagogical tools that combine inner development activities with tangible reflections (e.g., photos, videos, drawings, writing). Integrated into the Enlace Metro as *Vivências*—learning experiences grounded in students' lived realities—these prompts help surface what is often pre-reflective or unnoticed. Rather than a fixed toolkit, ABD offers a practice that supports the inner-outer

dynamics of transformative learning through attunement, relational inquiry, and experiential sense-making (Gonçalves & Grocott, 2024).

Alongside Awareness-Based Design (ABD), this paper draws on practice-based design research, a mode of inquiry through which knowledge emerges through making and reflection—via prototyping, iteration, and feedback (Buchanan, 2015; Candy, 2006; Frayling, 1993; Koskinen et al., 2011). Methods such as co-design workshops, classroom observations, and discussions with faculty, monitors, and students support iterative learning and collaborative sense-making. Here, design encompasses not only tangible outcomes but also experiences, interactions, and learning models. In this sense, the multi-year development of the Enlace Metro (Section 3.2) is an example of designing an engagement model that bridges students' inner experiences with their broader academic and community contexts.

We invite you, the reader, on a symbolic journey through this paper. **Section 1, *Preparing for the Journey***, introduces the context for applying the IDG in higher education. **Section 2, *Destination***, presents the central questions, methodologies, and methods. **Section 3, *Charting the Course***, explores a case study of the Enlace System at Centro Universitário Facens (Sorocaba, Brazil). **Section 4, *Discoveries Along the Journey***, shares key observations and findings. Finally, **Section 5, *Inward and Forward***, concludes with emerging paradoxes, future directions, and implications for ongoing exploration.

## 3. The Enlace System as a Case Study: Charting the Course

To apply the Inner Development Goals (IDG) at the university, we began with the insight that students' learning should start with direct, embodied awareness of the framework's skills, competencies and qualities (Inner Development Goals, n.d.)—because awareness grounded in lived experience is the first step in transformative learning (Dirkx et al., 2006; Gonçalves, 2024; Prochaska & DiClemente, 2005). Therefore, to support students in becoming aware of the IDG, we designed learning opportunities to help them build a shared foundational language around inner development.

### 3.1. Emotional Collaboration Lab (Enlace)

To strengthen institutional capacity at Centro Universitário Facens, the Enlace Lab was established as a dedicated space to develop collaborative strategies supporting students and faculty in fostering a healthy social fabric within the university and the broader Sorocaba community. The lab identifies students' social, relational, and emotional needs and creates self-instructional tools and activities integrated into technical curricula. Through these small interventions, the lab helps students recognize how their personal and professional decisions affect their careers, others, and the planet.

### 3.2. The Enlace System

The Enlace System is a broader pedagogical engagement model (Gonçalves & Teixeira, 2015) aimed at promoting creativity and well-being within the academic community through awareness of self/others, relational well-being, and the discovery of skills, talents, and purpose. By "engagement model," we mean a learning model including various features and opportunities for students and faculty to engage with the IDG (detailed below). We believe that

designing engagement models like the Enlace System fosters modularity and decentralization, key elements for activating collective and systemic participation (Gonçalves & Teixeira, 2015).

Through designing the Enlace System, we reflect on the possibilities, challenges, and implications of implementing the IDG in higher education. Our reflections stem from the practice of design-led prototyping, aligning with Schön's (1983) concept of "reflection-in-action." This approach involves ongoing reflection throughout the process, allowing for real-time learning rather than limiting reflection to after the action. Reflection-in-action enables us to make informed decisions while immersed in the work, making the Enlace System more dynamic and contextually relevant.

This way, we believe that what distinguishes the Enlace System as a novel approach is its foundation in action learning and participatory action research. That is, the system was not designed as a fixed program to be implemented in a linear fashion, but as a living system developed iteratively through cycles of practice, reflection, and adaptation. Formal and informal feedback from students, faculty, and the institutional context continuously shaped the design. In many instances, students were not only participants but also co-creators. This participatory dimension made the system more responsive and attuned to the evolving needs of the academic community.

### 3.3. The Enlace Metro

One of the main tools of the Enlace System is the Enlace Metro, a self-instructional learning pathway, that is, a structured set of activities and reflections that students can follow independently at their own pace. This pathway is currently facilitated by the *Well-Being Ambassadors*, who are responsible for mobilizing their peers to participate in online activities and supporting them throughout the immersive experience. Teachers act as facilitators alongside the Enlace team and ambassadors, encouraging student engagement, monitoring socioemotional outcomes, and proposing targeted actions aligned with recurring needs. The Enlace Metro is hosted on the university's learning management system, Canvas, which is an online platform used to organize course materials, assignments, and communication, allowing students to access learning resources anytime and track their progress.

Through a metro journey narrative, students engage in inner development practices on the platform. Each semester, they work on about four competencies, spending around 10 hours per competency: 3 hours on self-instructional online activities with theory and reflection, 1 hour on well-being and mental health questionnaires, 3 hours of facilitated in-class interventions, and 3 hours on immersive activities to build a personal life project—balancing 60% in-person and 40% online engagement. Students who complete the full 40 hours of inner development activities in a semester receive an extra 1.0 point to add to the final grade of a course of their choice. This incentive reinforces the value of social, emotional and relational development within academic evaluation—recognizing that a student's inner growth can support their overall academic performance. This proposal is currently under review and is part of a broader process to foster a more holistic approach to assessment.

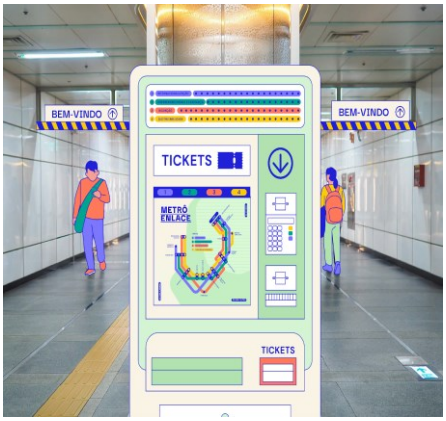
FIGURE 2. ENTRANCE TO THE ENLACE METRO—PHASE 3


Source: Enlace, 2020

The Enlace Metro has four lines, each with three to four stations, representing Centro Universitário Facens' institutional pillars: Sustainable Development, Innovative Mindset, Entrepreneurial Attitude, and Global Vision. As students 'travel' through three city zones—*Me and Myself*, *Me and Others*, and *Me and the World* (CASEL, 2020; Taddei, 2018)—they visit metro stops representing the Inner Development Goals. At each stop, students engage in *Vivências*, experiential learning opportunities that use awareness-based prompts as a multimodal approach—combining short texts, dialogical videos, and reflective exercises. These prompts activate personal insights, linking content to lived experience and encouraging reflection on social, emotional, and relational aspects.

The metro journey metaphor shows that skills, competencies, and qualities are not academic content to master all at once or as a single block to complete by graduation. Instead, inner capacities develop gradually through knowledge and lived experience, without a strict linear path. This way, within higher education, we understand inner development as an ongoing process shaped by choices and opportunities throughout academic life. Each part of the journey offers diverse learning paths that students and faculty may choose to explore—or not.

FIGURE 3. TICKET COUNTER—PHASE 3

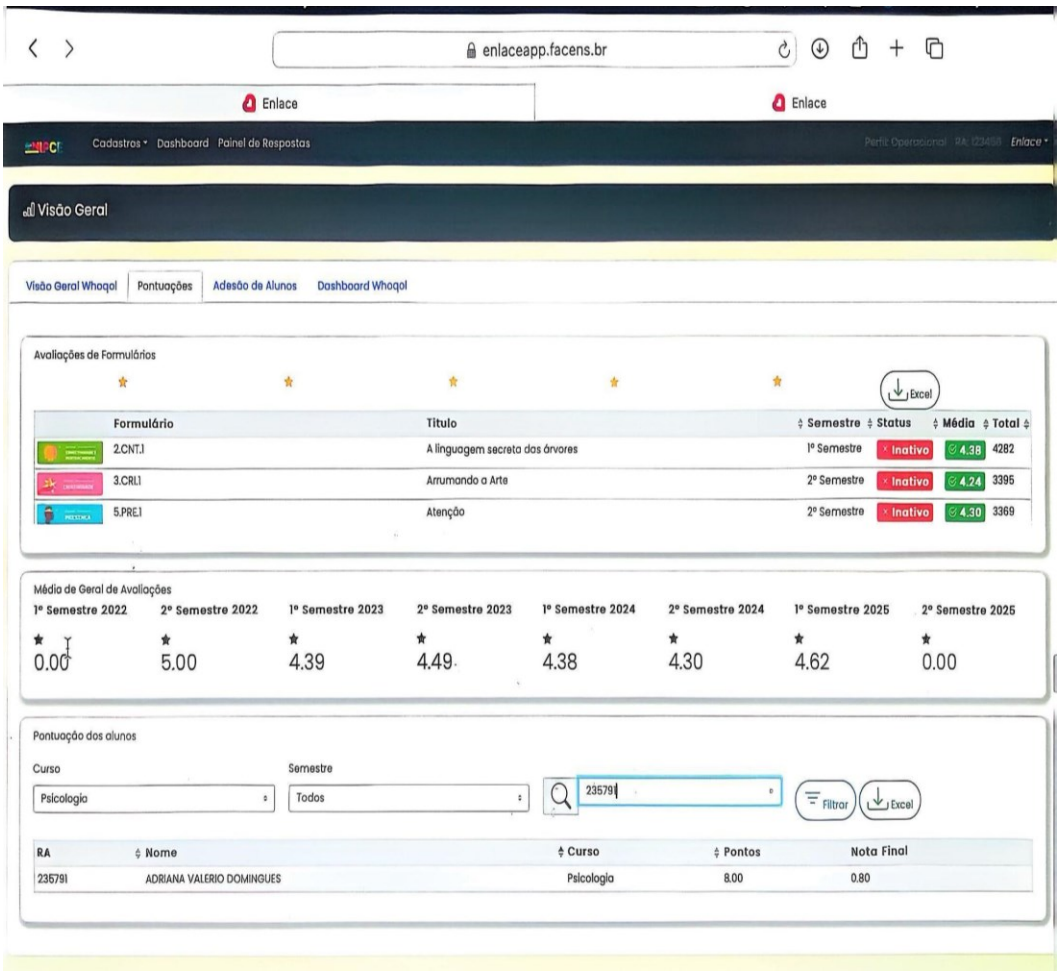



Source: Enlace, 2020

In addition to the Enlace Metro, the Enlace System includes assessing students' quality of life using standardized tools: the WHOQOL-BREF, which measures physical, psychological, social, and environmental well-being, and the Purpose in Life Test (PIL), which evaluates a person's sense of meaning. These validated assessments (WHOQOL-BREF: WHOQOL Group, 1998; PIL-Test: Crumbaugh & Maholick, 1964) are administered each semester and displayed on an online dashboard (Figure 4), enabling students to track their well-being over time. The assessments promote self-awareness and guide targeted support within the Enlace System.

The Enlace System was developed over five years (2019–2024) through a co-design process divided into three main stages—Foundations and Conceptualization (Phases 1–3), Platform Development and Capacity Building (Phases 4–5), and Pilot Implementation and Collective Impact (Phases 6–8). Although we describe these as distinct phases to help illustrate and clarify the development process, we acknowledge that implementation in a higher education context is complex and nonlinear. These phases often overlap, unfold simultaneously, and may require moving back and forth rather than following a strict start-and-end sequence. This reflects the dynamic and iterative nature of applying the IDG in practice.

FIGURE 4. STUDENT DASHBOARD




Source: Enlace System

In Phase 1, the Enlace team explored theoretical frameworks on socioemotional development—including SEE Learning, the Big Five personality traits, and the Brazilian National Common

Curricular Base (Brazil, 2017; McCrae & Costa, 1999; Roeser & Schlesinger, 2019). These were examined in relation to the university's mission and academic pillars: Global Vision, Sustainable Development, Innovative Mindset, and Entrepreneurial Attitude.

In Phase 2, a design-driven prototyping process created a strategy to integrate the Inner Development Goals (IDG) with the university's mission and academic pillars. Because the content is personal and subjective, the format needed to be engaging and meaningful. The Enlace team used the metaphor of students traveling on "paths and journeys" with the "luggage" they carry, structuring it as a "metro journey through an imaginary city," where metro lines symbolize broader capacities the university aims to develop and stations represent specific IDG capacities.

In Phase 3, IDG skills, competencies, and qualities were selected, reorganized, and validated with students. The skills were grouped into four tracks—Sustainable Development, Global Vision, Entrepreneurial Attitude, and Innovative Mindset—and integrated into three city zones: *Me and Myself*, *Me and Others*, and *Me and the World* (Figure 5). Experiential learning activities were created for each metro stop to correspond with specific IDG skills, such as the *Reflection Stadium*, *Self-Knowledge Square*, *Creativity Museum*, *Planning Hotel*, and *Diversity Garden*. These activities form a catalogue of exercises students complete to validate their journey.

In the *Self-Knowledge Square*, for example, students create a personal timeline of key life moments and emotions, fostering self-awareness and emotional understanding in a safe space. *The Planning Hotel* uses a fictional story of a student facing academic and emotional challenges to prompt reflection on time management, procrastination, openness to help, and self-organization. While the *Creativity Museum* encourages students to create original titles and captions for provocative images, it stimulates creative expression, symbolic thinking, and imaginative engagement with everyday themes.

FIGURE 5. LEARNING ACTIVITIES PLOTTED ALONG THE ENLACE METRO


Source: Enlace System

In Phase 4, self-instructional content was developed for the online platform and made accessible to students. The Enlace team also created a *Socioemotional Observatory*—an online system featuring dashboards that enable students to track their socioemotional and relational development over time (Figure 4)—organized by course and semester to support faculty in designing academic proposals.

In Phase 5, the Enlace team trained faculty on the IDG content, addressing challenges in implementing self-instructional materials, selecting monitors for the online platform, and supporting teachers with targeted classroom interventions.

In Phase 6, the Enlace Metro was launched as an initial pilot at the university, with a focus on assessing and grading student participation.

In Phase 7, the Enlace Metro scale pilot launched with a student-centred focus, beginning with an immersive onsite session for faculty that introduced the semester's core IDG capacities through interactive activities.

As part of the scale pilot, a lifelong learning initiative offering Inner Development Goals micro-credentials was made available to all students across the university—both undergraduate and graduate—interested in registering. Each of the 15 IDG micro-credentials involves a 10-hour cycle of theory, practice, and classroom planning. Upon completing at least 40 hours, students can become Well-Being Ambassadors—that is, peer guides supporting immersive activities and helping embed the IDG across the university.

Throughout the semester, ambassadors and faculty co-led three one-hour sessions per course, combining theory with hands-on activities to give students practical tools. Students also completed self-paced online modules and tracked their well-being through dashboards. A second immersive onsite session, now focused on students, culminated in a personal life project. Completing the 40-hour Enlace Metro program earned students an extra 1.0 point toward their course grade, reinforcing the value of social, emotional, and relational learning alongside technical skills. The grading format is currently being piloted.

In Phase 8, student participation remains mandatory as the program integrates into selected course curricula, though institutional acceptance of socioemotional scores in final grades is still evolving. Engagement continues through in-person, self-paced, and immersive formats to maintain the experience's spontaneity and formative quality. The focus has also expanded to designing a social incubator that builds on students' inner development and guides coordinated collective action addressing university and community needs.

## 4. Findings: Discoveries along the Journey

All students' responses are recorded in the Enlace System, where the team can access an anonymized dashboard showing results from answers, evaluations, and comments (Figure 4). At the end of each semester, the following indicators were analysed (Appendix I): student participation (Table 1), qualitative open-ended responses to online activities, student evaluations of online activities (rating scale 0-5), qualitative feedback on both online and in-person activities (Table 2), and faculty qualitative feedback of in-person interventions (Table 3).

We observed that student participation in the Enlace Metro online activities from 2021 to 2024 fluctuated, influenced by program format changes and institutional factors (Table 1). Early semesters (2021/1 to 2022/1) saw low and uneven engagement, with Engineering—the most established program—peaking at 64%, while Technology and Architecture remained below 30%. Improved coordination in 2022/2 raised overall participation to 44%. From 2024, the introduction of in-person interventions and increased involvement from Health programs boosted participation to 51% in 2024/1, with Architecture reaching 84%, likely reflecting a greater affinity for the

reflective nature of the Inner Development Goals. Overall, participation benefited from in-class presence, institutional maturation, and alignment between Enlace's pedagogy and the social, emotional and relational capacities promoted by the IDG.

During the early phases (Phases 3–6), many faculty felt unprepared to address socioemotional topics like mental health and well-being, citing lack of expertise. Most students engaged superficially, completing activities mainly to earn points without deeper reflection. Though mandatory participation initially boosted adherence, it also caused negative perceptions, leading to a temporary suspension of the requirement for program realignment.

In response, the Enlace Lab implemented in-person faculty training, bimonthly pedagogical support meetings, and by 2024 appointed student ambassadors to facilitate communication, active listening, and stronger connections (Phase 7). The ambassadors led classroom interventions on IDG themes—selected with the course coordinators' input and offering student opt-out. With increased support and shared responsibility, faculty engagement grew. Early 2024 feedback indicates that well-coordinated interventions are viewed as meaningful teaching contributions (Table 3).

FIGURE 6. IN-PERSON ACTIVITIES—ENLACE METRO

Source: Enlace System

### 4.1. From *Self* to *World*

Throughout the project, the team met biweekly for a co-creative, iterative design process, continuously reflecting on feedback from in-class discussions, student interactions, and experiences with the Enlace Metro. Over time, we observed a shift in the Enlace System's pedagogical focus: from solely emphasizing students' socioemotional development for personal growth (Phase 1) to focusing on how inner development supports collective action across broader contexts—from the self to others, from the university to the city, and from the city to the planet (Phases 3-8). This shift highlighted the importance of seeing students not only as individuals seeking to improve their own skills but also as agents capable of positively influencing their community and the world.

This way, we understand that incorporating new skills, competencies, and qualities from the Inner Development Goals (IDG), aligning with the institution's core pillars, and engaging across the *Me and Myself*, *Me and Others*, and *Me and the World* dimensions were all essential to expanding the Enlace System's pedagogical shift from self to world. By introducing the IDG framework alongside other pedagogical references, we enabled a shift in teaching—inviting students to move from isolated actions toward a more relational, collective, and co-creative awareness of inner development.

### 4.2. Awareness of the IDG is not Enough to Motivate Action

The Enlace Metro was initially designed to invite students to become aware of the IDG. However, collaboration with faculty revealed their focus on solving concrete problems. Teachers emphasized that "becoming aware is not enough" and that "awareness must be accompanied by actions in the real world." Listening to teachers and course coordinators, we understood that students often need a clear *why* grounded in real challenges before engaging with the IDG. Therefore, we realized they could interact with the framework by actively working on real-world problems and, through this process, develop awareness of skills, competencies, and capacities central to inner development. In other words, the learning experience moves from action towards awareness, and not solely from awareness towards action. It is essential to recognize that this is not a linear process but a cyclical one—a continuous movement between outer-world action and inner-world awareness, two entangled and interdependent dimensions (Gonçalves & Grocott, 2024).

### 4.3. One Journey Leads to Many

Throughout the development of the Enlace System, we observed that the narrative of the metro itself inspired other initiatives in the university. In other words, the very existence of the Enlace Metro by itself prompted additional (direct or indirect) actions within the academic community. For example, although students initially completed the activities because they were mandatory, they were still (anyway) engaging with the IDG. In one notable instance, engineering students proposed improvements to the system with artificial intelligence, specifically, using AI to name emotions based on students' responses. This demonstrated that the engineering students not only envisioned benefits for themselves but also proposed an 'action in the world' that could positively impact other students.

In architecture, we observed that using the Enlace Metro also created new opportunities. An initial delay in integrating the IDG provided extra time to refine how capacities were introduced each semester. In the first semester, course content and themes were defined; in the second, classroom visits monitored progress, addressed questions, and resolved issues. This ongoing dialogue helped faculty explore new possibilities inspired by the platform. For example, some Enlace Metro activities were incorporated into extracurricular events like the Creativity Week and integrated into courses, such as the Expressions course, where architecture students created artwork on well-being that was showcased at a Wellbeing Summit.

However, we noticed that these "new journeys" often must align with the university's established pathways, formats, and discourses. In other words, students' interests and actions tend to be categorized within existing structures (such as "entrepreneurship," "innovation," "sustainability," or "creativity"), which may have lost personal significance. Additionally, there is institutional pressure to structure and assess courses by grades. The implication is that while the Metro encourages students to explore and expand their paths through a 'journey,' ultimately, they are expected to fit these journeys back into courses, grades, or labels. This tension between exploration and institutional conformity highlights the challenge of balancing student-centred and institution-centred approaches.

Therefore, we ask: Are universities prepared to let students live their "own journeys"? In other words, are they willing to allow paths outside pre-established frameworks? With the Enlace

System, we see that the logic of 'fitting' students into predefined structures serves the university's financial, commercial, and organizational interests — but does it truly serve each student's potentials and possibilities? Are universities ready to embrace unique journeys that don't align with conventional trajectories? And how might opening space for multiple IDG 'journeys' affect the learning environment and support students in the long term?

## 5. Conclusion: Inward and Forward

We are nearing the end of our journey. This paper explored integrating the Inner Development Goals (IDG) into higher education through an awareness- and practice-based design approach. Our reflections arose from learning by doing, acknowledging there is no one-size-fits-all solution to linking inner development with outer change in universities. With this in mind, we share key takeaways to support the broader field of transformative learning in higher education — especially for those working with the IDG. These insights aim to help university leaders, educators, curriculum developers, and implementers design learning environments that meaningfully connect inner and outer transformation.

A key takeaway is the importance of presenting the IDG as a continuous, emergent, and open learning process. A practical pedagogical strategy that supported this in our context—and may be valuable for other universities — is the use of metaphor to communicate complex and evolving learning processes. In our case, the metaphor of a journey, embodied in the Enlace Metro, helped convey the idea of ongoing learning and discovery. Such metaphors help students and educators navigate inner development by making the intangible visible. That said, we caution that making such tools mandatory may hinder authentic engagement. Additionally, successful implementation depends on creating enabling conditions — such as providing professional development for teachers, the supportive presence of monitors, and timely, responsive interventions.

Complementing this, we invite universities to consider a broader pedagogical shift that moves inner development beyond individual well-being or personal growth, toward a more relational, open, and collective process. This shift aligns with emerging research on relational well-being and togetherness and is vital because it moves away from a fixed, objectivist view that treats well-being as a static attribute of the student — instead framing it as an open, emergent, and communal process. In our case, this shift was expressed through the metaphor of city zones — "Me and Myself," "Me and Others," and "Me and the World" — helping students situate their learning across personal, social, and systemic dimensions.

Finally, we learned that central to this pedagogical shift is the dynamic interplay between action and awareness. Awareness alone is not enough to sustain engagement. Students become more meaningfully involved when action comes first. By participating in real-world, collaborative projects, they begin to recognize and reflect on the inner capacities they develop. This cyclical movement—action leading to awareness, and awareness leading back to action — should be intentionally integrated into learning design. Ideally, such programs should also connect to course content and align with the Sustainable Development Goals (SDG).

Finally, we encountered a major challenge: universities often try to fit students' learning journeys into pre-existing institutional structures. These structures — shaped by conventional

labels like "entrepreneurship," "innovation," or "creativity"—can dilute or reshape students' experiences so they no longer feel meaningful. Although the Enlace System offers students space to explore and expand through open inquiry and discovery, higher education institutions frequently pressure them to translate these experiences into assessable outcomes aligned with academic formats, grades, and administrative logic. This creates a tension between a student-centred, emergent learning process and the institution-centred demand for categorization, standardization, and control.

This tension invites a deeper inquiry: Are universities ready to let students live their own journeys—ones that may not fit neatly within institutional frameworks? Are they willing to hold space for experiences that resist easy categorization or measurement? Through the Enlace System, we saw how the institutional urge to "fit" learning into existing molds often serves organizational interests but may limit each student's transformative potential.

We, therefore, wonder: How can universities support learning paths that remain open, relational, and driven by students' evolving sense of purpose? What would it take to design environments that welcome multiple, even unpredictable, IDG 'journeys'? And how might such a shift redefine both learning outcomes and the very purpose of higher education? We close by inviting university leaders, educational boards, and curriculum developers to embrace transformative learning as a *movement* — from content transfer to content experience, from knowledge-based training to relational development, from a single journey to many possibilities, and from isolated well-being to collective action.

## References


Ahmed, S. (2014). *The cultural politics of emotion.* Routledge.

Anzaldúa, G. (2015). *Light in the dark/Luz en lo oscuro: Rewriting identity, spirituality, reality.* Duke University Press.

Barnett, R. (2011). *Being a university.* Routledge.

Barrett, L. F. (2017). *How emotions are made: The secret life of the brain.* Houghton Mifflin Harcourt.

Berger, R., Brenick, A., & Tarrasch, R. (2018). Reducing Israeli-Jewish pupils' outgroup prejudice with a mindfulness and compassion-based social-emotional program. *Mindfulness*, 9(6), 1768–1779. https://doi.org/10.1007/s12671-018-0919-y

Beuys, J., & Harlan, V. (2004). *What is art? Conversation with Joseph Beuys.* Rudolf Steiner Press.

Bilbao-Nieva, M. I., & Meyer, A. (2024). Contributions of Barad's new materialism to well-being research. *The Qualitative Report*, 29(4), 898–914. https://doi.org/10.46743/2160-3715/2024.6423

Brackett, M. A. (2020). *Permission to feel: Unlocking the power of emotions to help our kids, ourselves, and our society thrive.* Celadon Books.

Brasil. Ministério da Educação. (2017). *Base Nacional Comum Curricular* [National Common Curricular Base].

Buchanan, R. (2015). Wicked problems in design thinking. In B. Laurel (Ed.), *The design reader* (pp. 141–150). Berg.

Candy, L. (2006). *Practice-based research: A guide. Creativity and Cognition Studios*, University of Technology, Sydney.

Collaborative for Academic, Social, and Emotional Learning. (2020). *What is SEL?* https://casel.org/what-is-sel/

Dewey, J. (1938). *Experience and education*. Free Press.

Dirkx, J. M., Mezirow, J., & Cranton, P. (2006). Musings and reflections on the meaning, context, and process of transformative learning. *Journal of Transformative Education*, 4(2), 123–139. https://doi.org/10.1177/1541344606287503

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Engert, V., Klimecki, O. M., & Kanske, P. (2023). Spreading positive change: Societal benefits of meditation. *Frontiers in Psychiatry, 14*, Article 1038051. https://doi.org/10.3389/fpsyt.2023.1038051

Frayling, C. (1993). *Research in art and design.* Royal College of Art.

Freire, P. (2000). *Pedagogy of the oppressed* (30th anniversary ed.). Bloomsbury. (Original work published 1970)

Gergen, K. J. (2009*). Relational being: Beyond self and community.* Oxford University Press.

Gonçalves, R. D., & Grocott, L. (2024). Awareness-based design: Bringing design to social presencing theater. *Journal of Awareness-Based Systems Change*, 4(2), 87–122. https://doi.org/10.47061/jasc.v4i2.8302

Gonçalves, R. D. (2024). *Awareness-based design: The role of making aware for a transformative learning practice* [Doctoral thesis, Monash University]. https://doi.org/10.26180/24932691.v1

Gonçalves, R. D., & Hayashi, A. (2021). A pattern language for social field shifts: Cultivating embodied and perceptual capacities of social groups through aesthetics and social field archetypes. *Journal of Awareness-Based Systems Change,* 1(1), 35–57. https://doi.org/10.47061/jabsc.v1i1.478

Gonçalves, R. D., & Teixeira, C. (2015). *Emerging livelihoods: Thinking design practice through engagement models*. Parsons The New School for Design.

Greene, M. (1978). *Landscapes of learning.* Teachers College Press.

Grocott, L. (2022). *Design for transformative learning: A practical approach to memory-making and perspective-shifting.* Routledge.

Hayashi, A. (2021). *Social presencing theater: The art of making a true move.* PI Press.

Hayashi, A., & Gonçalves, R. D. (2023). Awareness-based collective creativity: A studio-based practice for future-making. In G. Donnelly & A. Montuori (Eds.), *Routledge handbook for creative futures* (pp. 325–335). Routledge.

Inner Development Goals. (n.d.). *Being – Inner Development Goals.* https://innerdevelopmentgoals.org/being/

Jordan, T., Reams, J., Stålne, K., Greca, S., Henriksson, J. A., Björkman, T., & Dawson, T. (2021). *Inner development goals: Background, method and the IDG framework*. Inner Development Goals Initiative. https://innerdevelopmentgoals.org/framework

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life* (1st ed.). Hyperion.

Koskinen, I., Zimmerman, J., Binder, T., Redström, J., & Wensveen, S. (2011*). Design research through practice: From the lab, field, and showroom.* Morgan Kaufmann.

Lueke, A., & Gibson, B. (2016). Brief mindfulness meditation reduces discrimination. *Psychology of Consciousness: Theory, Research, and Practice*, 3(1), 34–44. https://doi.org/10.1037/cns0000081

McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 139–153). The Guilford Press.

Mattelmäki, T. (2006). *Design probes* [Doctoral dissertation]. Aalto University Learning Center. http://urn.fi/URN:ISBN:951-558-212-1

Meadows, D. H. (2008). *Thinking in systems: A primer*. Chelsea Green Publishing.

Nussbaum, M. (2011). *Creating capabilities: The human development approach.* Harvard University Press.

Oyler, D. L., Price-Blackshear, M. A., Pratscher, S. D., & Bettencourt, B. A. (2022). Mindfulness and intergroup bias: A systematic review. *Group Processes & Intergroup Relations*, 25(4), 1107–1138. https://doi.org/10.1177/1368430220978694

Palmer, P. J. (1998). *The courage to teach: Exploring the inner landscape of a teacher's life*. Jossey-Bass.

Pomeroy, E., & Herrmann, L. (2023). Social fields: Knowing the water we swim in. *The Journal of Applied Behavioral Science*. https://doi.org/10.1177/00218863231174957

Prochaska, J. O., & DiClemente, C. C. (2005). The transtheoretical approach. In J. C. Norcross & M. R. Goldfried (Eds.), *Handbook of psychotherapy integration* (2nd ed., pp. 147–171). Oxford University Press. https://doi.org/10.1093/med-psych/9780190690465.003.0008

Rinaldi, C. (2009*). In dialogo con Reggio Emilia: Ascoltare, ricercare e apprendere*. Reggio Children.

Robinson, K. (2006, February). Do schools kill creativity? [Video]. TED Conferences. https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity

Roeser, R. W., & Schlesinger, M. (2019*). SEE Learning: Social, emotional, and ethical learning.* Emory University.

Scharmer, C. O. (2016). *Theory U: Leading from the future as it emerges* (2nd ed.). Berrett-Koehler Publishers.

Scharmer, C. O. (2018*). The essentials of Theory U: Core principles and applications*. Berrett-Koehler Publishers.

Schön, D. (1983). *The reflective practitioner: How professionals think in action.* Basic Books.

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being.* Free Press.

Taddei, F. (2018). *Apprendre au XXIe siècle* [Learning in the 21st Century]. Calmann-Lévy.

Trungpa, C. (1996). *Meditation in action.* Shambhala Publications.

Yongey, M. R., & Tworkov, H. (2014). *Transformando confusão em clareza: Um guia para as práticas fundamentais do budismo tibetano*. Editora Lúcida Letra.

Wamsler, C., Brossmann, J., Henderson, H., Whitaker, M., & Wickenberg, B. (2020). Mindfulness in sustainability science, practice, and teaching. *Sustainability Science*, 15, 1031–1039. https://doi.org/10.1007/s11625-017-0428-2

White, S. C. (2010). *Analyzing wellbeing: A framework for development practice*. Development Research Centre on Wellbeing in Developing Countries, University of Bath.

## Declaration Statements

### Conflict of Interest

The authors report no conflict of interest.

### Funding

This research was funded by Centro Universitário FACENS, Sorocaba, Brazil.

### Data Availability

Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

https://doi.org/10.56611/idg.casebook.001.6

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Ricardo Dutra Gonçalves who can be contacted by email via ricardo.dutragoncalves@aalto.fi

https://doi.org/10.56611/idg.casebook.001.7

# CASEBOOK OF IDG IMPLEMENTION INTO HIGHER EDUCATION

# Think Globally, Act Locally: IDGs of Pre-Service Teachers as Anchors of Social Activism and Global Citizenship

**Maria Eisenmann**

Julius-Maximilians-Universität Würzburg, Germany
ORCID: 0000-0002-0289-3565

**Nataliia Lazebna**

Julius-Maximilians-Universität Würzburg, Germany
ORCID: 0000-0001-5886-693X

**Abstract**

The study focuses on Inner Development Goals (IDGs) of pre-service teachers as anchors of their social activism and global citizenship. Participants of this four-phase study are students from the Julius-Maximilians-University Würzburg, TEFL Chair, and the National University "Zaporizhzhia Polytechnic", Department of Foreign Philology and Translation. Phases two and three also involved students from the Slavic Studies Chair, JMU, and other Ukrainian partner universities; Phase 4 additionally involved students and teachers from the collaborative eTwinning project BLABL.ART, from Italy, France, Réunion, and the Czech Republic. The four phases: (1) inter-institutional international collaboration; (2) social extracurricular activities (2023-ongoing); (3) "*Projekt zur sprachlichen Förderung und Integration der aus der Ukraine geflüchteten Kinder und Jugendlichen in Würzburg*" (2023-ongoing); (4) course on "Transcultural Project-Based Learning through eTwinning" (Winter Semester 2024/25). The Meaning, Awareness, Purpose (MAP) model was implemented to analyze the IDGs of the study participants. Further reflections of students involved in three main phases of the study are analyzed according to the SDG Pyramid within three main groups: "People", "Ecological", and "Spiritual". The social impact of the study and further perspectives, as well as preliminary data analysis, are considered.

***Keywords*:** Inner Development Goals (IDGs), Sustainable Development Goals (SDGs), pre-service foreign language teachers, social activism, Global Citizenship Education (GCE)

https://doi.org/10.56611/idg.casebook.001.7

## 1. Introduction

In today's globalized world, intercultural communication and socio-cultural aspects in education are becoming increasingly important. The need for cross-cultural competence and empathy has grown significantly, particularly since February 2022, following Russia's invasion of Ukraine. This conflict triggered a massive refugee crisis, with Germany, including Bavaria, where JMU is located, providing shelter to a significant number of Ukrainian refugees. The integration of these individuals, alongside Germany's prior experience in integrating migrants and refugees, underscores the need for further nurturing empathy and practical skills to interpret diverse verbal and non-verbal behaviours, build healthy relationships, and foster a culture of support. In this context, IDGs serve as essential frameworks for promoting sustainable teaching and learning environments that address both academic and emotional needs.

The educational landscape in Würzburg presents unique challenges, particularly in developing a holistic teaching methodology that facilitates the social and academic integration of Ukrainian students (Lazebna et al., 2025). Traditional pedagogical approaches must be adapted to accommodate students who have experienced trauma, displacement, and disruptions in their academic progress. The development of safe and sustainable learning environments and the implementation of innovative pedagogical strategies are central to this study (Lazebna, 2024). IDGs of students from Germany and Ukraine function as crucial anchors that connect sustainable teaching and learning practices with fostering social activism and global citizenship. Through collaborative projects and reflective discussions, these groups cultivate a sense of belonging and engagement (Miñán-Espigares & Juárez-Romero, 2021).

In today's educational landscape, teachers have evolved from traditional instructors to mentors and facilitators who integrate technology, adapting to their students' diverse needs. This transformation is particularly visible in Teaching English as a Foreign Language (TEFL), where hybrid and online learning models offer both opportunities and challenges. The integration of digital tools and virtual learning platforms enhances accessibility and flexibility but also requires bridging technological gaps and maintaining student engagement (Nordén, 2024). Equitable access to technology and digital resources is essential to ensuring educational inclusivity. Creating an inclusive and supportive learning environment is crucial for both academic success and student well-being (Tokuhama, 2015). A multimodal, transcultural approach further enriches learning by integrating diverse media and cultural perspectives, equipping students with the necessary skills to find their way in a globalized world. The development of emotional intelligence, alongside digital and media literacy, enables students to critically analyse information and engage in empathetic interactions in modern society (Jakubik, Beke & Shtaltovna, 2023). These skills are foundational for fostering global citizenship, encouraging students to become informed, responsible, and active members of the global community (Largacha-Martinez, 2023; Mubtaker, 2024).

Despite the advantages of digital learning, remote students often experience exclusion, particularly when they encounter technical difficulties without immediate support (Huang, 2017), which often happens due to the war in Ukraine leading to frequent electricity breakages, internet disruptions, and infrastructural instability, significantly affecting students' ability to participate fully in discussions and collaborative activities. In addition to this feeling of alienation, online students require more attention from teachers and instructors, which we observed during our hybrid/online classes. This aligns with the findings of Ota and Murakami-Suzuki (2022) and Kalmar et al. (2022), who emphasize the increased instructional demands

posed by remote learning. A further challenge is a lack of equivalency in learning experiences, as remote students often struggle with asynchronous participation, limited interaction opportunities, and a diminished sense of belonging, which negatively impacts motivation and academic performance (Hollister et al., 2022; Lohiniva & Isomöttönen, 2021).

However, we were inspired by the increase of students' transversal competencies, including communication, cooperation, and empathy, which is also confirmed as a positive outcome of the hybrid format teaching and learning environment (Kalmar et al., 2022). Despite the challenges, many students developed resilience and adaptability to make use of online platforms effectively while maintaining collaborative efforts. To further enhance students' IDGs, we drew on recent studies (Jaiswal et al., 2021; Logemann et al., 2022) that highlight how online collaboration tools improve team effectiveness and social bonding. Structured group activities, shared virtual workspaces, and interactive digital platforms have facilitated meaningful connections, fostering a sense of community despite the physical distance.

To create an engaging and supportive online collaborative learning environment, we prioritized peer-to-peer interactions, problem-based learning, and utilizing interactive digital tools. Additionally, we emphasized the development of emotional intelligence, fostering social connections to counteract the negative effects of physical separation during times of crisis (Logemann et al., 2022). Encouraging reflective discussions, emotional check-ins, and mentorship programs further supported students' well-being, fostering a more inclusive and sustainable educational experience. Ultimately, these strategies helped bridging the gap between remote and face-to-face students, reinforcing the importance of empathy, cooperation, and adaptability in hybrid education.

The following chapter outlines the application of the Meaning, Awareness, Purpose (MAP) model, which was implemented to analyse the IDGs of the study participants. Additionally, the reflections of students involved in the three main phases of the study are examined using the SDG Pyramid, structured into three key categories: "People", "Ecological", and "Spiritual". Finally, the chapter discusses the study's social impact, future perspectives, and preliminary data analysis.

## 2. Methodology

Participants of this study included students from the Julius-Maximilians-University Würzburg, the TEFL Chair, and the National University "Zaporizhzhia Polytechnic", Department of Foreign Philology and Translation. Phases two and three also involved students from the Slavic Studies Chair, JMU, and other Ukrainian and European partner universities.

These students, future foreign language teachers, were engaged in a structured sequence of activities across four main phases. Diagnostic questionnaires were developed and implemented during phases 1 and 4 to assess initial expectations and measure developmental progress (Appendix I, A). The obtained results based on insights from these instruments enabled the research team to adapt the content of the seminar to student needs. Phases 1 through 4 were designed as an interconnected and continuous process, each building upon the outcomes of the previous stage to ensure a coherent and progressive learning experience.

1. Phase 1: Inter-institutional international collaboration. Hybrid and online TEFL classes were conducted throughout the 2022–2023 academic year, incorporating transcultural and interdisciplinary modules. These sessions featured contributions from invited experts based in Ukraine, Canada, the Czech Republic, India, and Spain (Appendix I, Table 1), fostering a globally informed, inclusive, and dialogic learning environment. Based on pre- and post-diagnostic questionnaires, the seminar topics were adapted to meet student needs. The seminars' multimodal, transcultural environment fostered both hard and soft skills, such as emotional intelligence, digital as well as media literacy, and information mining. The experience also promoted students' development in various dimensions, including physical, social, emotional, cultural, and cognitive areas, fostering a sense of global citizenship (survey data: "TEFL: Inter/transcultural learning and global education", 20 responses). The interdisciplinary nature of the seminars, enriched by guest speakers' experience, allowed for critical reflections on TEFL practices across different countries.
2. Phase 2: Social extracurricular activities (2023-ongoing), in cooperation with the Slavic Studies Chair at JMU. These activities include an Online Multilingual Speaking Club, where students enhance their linguistic skills, intercultural communicative competencies, and related IDGs. Students developed strong mediation skills by learning in diverse settings, effectively bridging communication gaps influenced by social, cultural, psychological, and educational differences (Koehler et al., 2022; de Wal Pastoor, 2017).
3. Phase 3: Participation in the "Projekt zur sprachlichen Förderung und Integration der aus der Ukraine geflüchteten Kinder und Jugendlichen in Würzburg" (2023-ongoing) involves German students (including those from the Slavic Studies Chair, JMU) volunteering as buddies and tutors to support the integration and education of Ukrainian children learning German.
4. Phase 4: Students were offered the course "Transcultural Project-Based Learning through e-twinning" (Winter Semester 2024/25), focusing on educational project management, intercultural communication, and interdisciplinarity to promote multilingual skills through the arts. The course involved participants from the eTwinning project BLABL.ART, partnering with institutions from Italy, France, Réunion, and the Czech Republic (Appendix II). BLABL.ART is an innovative European Initial Teacher Education (ITE) initiative that uses the performing arts as a medium for multilingual skill development and intercultural exchange. Through the eTwinning platform, student teachers from diverse countries collaborate online, integrating English and local languages in a rich, creative learning environment. By working in transnational teams and sharing personal and cultural artworks, participants co-create original artistic products while deepening their understanding of global perspectives (University of Würzburg, n.d. *BLABL.ART*). The core principles include universality, interdisciplinarity, openness, flexibility, respect, and resilience, guiding the course's implementation at JMU and among eTwinning partners. Based on pre- and post-diagnostic questionnaires, the seminar topics were adapted to meet student needs (34 responses).

Emphasizing multilingualism through art and universal pedagogical practices, this course is an example of an instrumental approach for social-emotional learning and resilience training, especially during times of global turmoil. The course aimed to:

- master intercultural competence skills to teach and learn sustainably in a diverse educational environment
- develop project management skills for teaching and learning
- advance English-language skills (listening, reading, writing, speaking) and multilingual awareness through the arts, focusing on international communication
- introduce healing pedagogical practices by allowing students to express their inner voices through calming and relaxing art practices
- promote teachers' activism and global citizenship education through community-based, national, and international project-based learning.

The pilot implementation of the course resulted in the successful completion of digital multilingual projects (survey data: "Transcultural project-based learning. Course Evaluation"; "Peer Assessment of the Projects on "Multilingualism through Arts"). Students from Germany and Italy dedicated their projects to topics such as human rights (English, German), the concept of beauty (Italian, Chinese, Serbian, English, German), and war narratives (German and English). After the final assessment, these projects will be published in the collaborating space of the BLABL.ART project on the eTwinning platform, making them accessible to a wider audience.

## 3. Findings

To further disseminate our knowledge about sustainable teaching and learning practices, we implemented the MAP model to analyze IDGs of the study participants (Inner Development Goals. (2024, April 4). *Episode 11*).

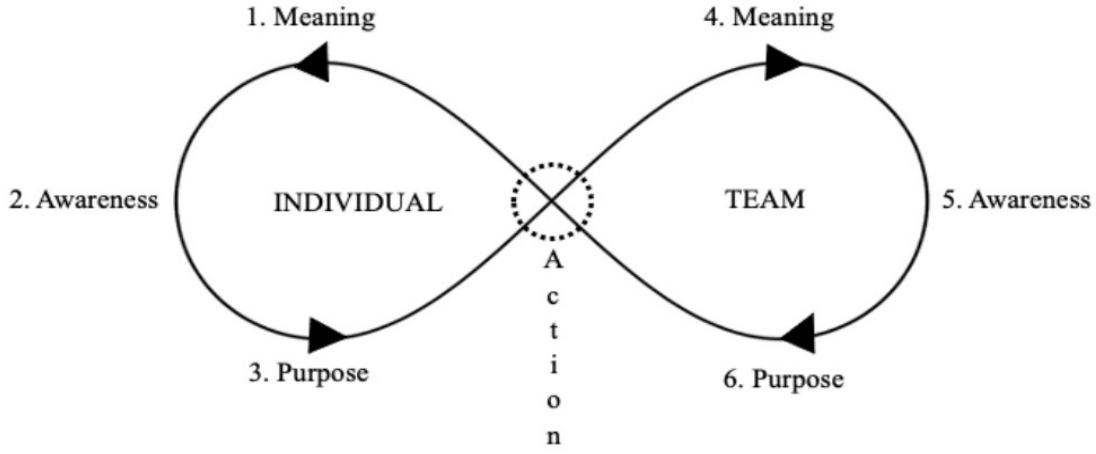
The MAP (Meaning, Awareness, Purpose) was chosen by the research team as an effective framework for advancing IDGs, as it offers well-structured approach to tracking personal growth of students across key dimensions such as self-awareness, emotional intelligence, and purposeful action. The MAP model has provided the research team with the adaptability and flexibility in a consequential and detailed analysis of IDGs. The model serves a solid background for further analysis of IDGs based on the pilot programs, where leadership skills, engagement concerns, and a strong resilience were studied as key components of the unique inner growth and sustainable personal development (Rhodes et al., 2023; Inner Development Goals. (2024, April 4). *Episode 11*).

Integrating IDGs into the curriculum for pre-service teachers (Kenny and McDaniel 2011) presents challenges, requiring teachers to be aware of the potential of IDGs as a tool for creating effective learning environments.

### 3.1. IDGs through MAP model

We adapted the Meaning, Awareness, Purpose (MAP) model (Rhodes et al., 2023) to activate social engagement and global citizenship.

FIGURE 1. MAP MODEL




Source: adapted from Rhodes et.al, 2023

**M**eaning

Brainstorming Pools: Students shared their ideas on global citizenship issues and discussed social case studies from international contexts. Through these discussions, they developed their awareness of sustainable teaching and learning, with a particular focus on fostering a sense of community.

Challenges and Stories of Success: Students shared personal experiences and listened to stories of invited speakers, focusing on issues of social justice. These exchanges strengthened their sense of community and increased their engagement with global issues.

**A**wareness

Open Seminars and Multilingual Speaking Club: Thematically focused events addressed human-related SDGs, such as human rights and quality of education (Appendix 1), highlighting their potential impact. Discussions in the Multilingual Speaking Club created a space for critical reflection and intercultural exchange.

**P**urpose

Volunteering Actions: Students participated in both local (Appendix 3) and international projects (BLABL.ART project) (Appendix 2), contributing individually while aligning their extracurricular activities with meaningful goals.

The MAP model fostered a student-centered approach, enhancing motivation, personal meaning, and learning through action. Through their engagement in volunteer activities, students developed a sense of responsibility by linking personal motivation to adaptive behaviors. During sessions of the Multilingual Speaking Club, which included participants from four Ukrainian universities – (1) universities in exile, such as Vasyl' Stus Donetsk National University (DonNU) and Mariupol State University (MSU), and (2) frontline higher educational institutions, including Zaporizhzhia Polytechnic National University (ZPNU) and Zaporizhzhia National University (ZNU) – students from JMU were immersed into relevant

and pressing topics. They engaged with the experiences of Ukrainian pre-service foreign language teachers, gaining insight into the challenges these students faced.

By integrating multimodal contexts and multisensory connections, discussions emphasized key messages of empathy and compassion, fostering their social activism. Challenging goals were set to launch more effective and efficient actions through students' collaborations.

The five dimensions of IDGs were continuously integrated into the discussed teaching and learning environment:

- Being: Cultivating presence, inner guidance, and integrity.
- Thinking: Developing critical thinking, perspective-taking, and sense-making.
- Collaborating and Acting: Strengthening co-creation, trust, appreciation of diversity, proactive engagement, courage, and perseverance (Mubtaker, 2024).

Through this holistic approach, students actively engaged in transformative learning experiences, deepening their understanding of global challenges while developing essential competencies for meaningful social impact.

### 3.2. Integrating IDGs through Student Activities

Through activities such as "A Chart of My Identity", "A Chart of My Perception", and "Identity Wheel", the students reflected on their personalities, interests, hobbies, values, and beliefs. These tasks emphasized **the dimension of "being"** (relationship to self), fostering presence, inner guidance, and integrity. The main focus was on students' inner lives, including their emotions, motivations, and intentions. Group projects involving the multilingual analysis of a piece of art, such as multilingual art exhibitions, bilingual art critique podcasts, multilingual art journals and blogs, and Plutchik's Wheel of Emotions, activated **the dimension of "thinking"** (cognitive skills), which encouraged critical thinking, perspective-taking, and sense-making through interdisciplinary exploration.

Activities like "Two perceptions of the same reality", "Listening ten times two", and "The elaboration game" activated **the dimensions of "relating"** (caring for others and the world). By engaging in collaborative projects, students developed trust, courage, and determination while co-creating meaningful work. Short video examples of best practice from multilingual and arts-based classrooms worldwide further inspired students, strengthening their sense of interconnectedness and appreciation for diverse teaching and learning environments. This holistic approach framed education as a sustainable system related to society.

The final practical implementation of these dimensions took place through students' participation in volunteering activities, such as buddies for their Ukrainian peers during Online Speaking Club Meetings and teaching Ukrainian refugee students. At this point **the dimensions of collaborating** (social skills) and **acting** (enabling change) were developed. Students took their courage to utilize available and affordable resources and create a positive impact.

### 3.3. MAP Model as a Tool for Sustainable Teaching and Learning

This pilot study demonstrates how the MAP model can serve as a systematic tool for analyzing diverse teaching and learning environments. A key aspect of this research is the progressive adaptation of the Inner Development Goals (IDGs) framework to a focus group of pre-service

foreign language teachers from Germany and Ukraine. The study highlights the role of student-focused individual factors (Eisenmann, 2019), including personal skills and qualities related to IDGs, in shaping the MAP model's effectiveness. On long-term goal of the research team is to develop an assessment scale for pre-service foreign language teachers to promote IDGs as integrative components for evaluating teachers' social agency. Additionally, we plan to develop a holistic coaching program to equip our target group with the skills necessary in broader international and transnational contexts. A key point is to foster IDGs as a foundation for sustainable teaching and learning, particularly in times of global uncertainty and further correlation with the SDGs.

### 3.4. IDGs through SDG Pyramid

Further reflections from students involved in the three main phases of the study can be analyzed using the SDG Pyramid (2015). This model, which draws on Maslow's hierarchy of needs, rearranges the 17 SDGs into three main categories: "People" (SDGs 1-10), addressing social harmony and well-being, "Ecological" (SDGs 11-15), focusing on sustainability and environmental responsibility, and "Spiritual" (SDGs 16-17), emphasizing peace, partnership, and global harmony. By associating IDGs with this framework, we highlight their relevance in fostering holistic, sustainable, and globally conscious teaching and learning practices.

FIGURE 2. SDG PYRAMID (2015)


Source: Happiness SDG Pyramid, 2016

Our focus was on the IDGs of students as represented through the SDG Pyramid. Within the three categories (*People, Ecology,* and *Spiritual*), five aspects of personal and collective development were considered: *being, thinking, relating, collaborating,* and *acting,* which foster the necessary skills, mindsets, and values that enable students to engage meaningfully with sustainability challenges and contribute to achieving the SDGs:

TABLE 1. IDGS OF STUDENTS REPRESENTED THROUGH SDG PYRAMID

| Category | Aspect | Description |
|---|---|---|
| **People** | | |
| | Being | Students' thoughts, beliefs, and values; promotion of well-being among peers |
| | Thinking | Empathy, resilience, and harmonious learning environment |
| | Relating | Peer-to-peer care, cooperative activities, group projects |
| | Collaborating | Community involvement for sustainable society impact |
| | Acting | Managing emotionally stable condition and behaviors through acting |
| **Ecology** | | |
| | Being | Appreciation of values and personal beliefs to foster utilitarian principles of sustainable teaching and learning |
| | Thinking | Awareness of a personal and group impact on a social level |
| | Relating | Boosting empathy and resilience |
| | Collaborating | Inter-institutional/- communal holistic development |
| | Acting | Taking local actions to foster global citizenship |
| **Spiritual** | | |
| | Being | Perspective taking and projecting current state of mind and actions for the future |
| | Thinking | Focus on current activities and future impact |
| | Relating | Creation of a respectful, reliable and friendly learning environment |
| | Collaborating | Immersive, culturally sensitive, and reliable environment |
| | Acting | Through effective collaboration to efficient outcomes |

Source: own compilation

## 4. Discussion

### 4.1. Fostering Holistic Development – A Structured Approach to Students' IDGs

Using a bottom-up approach within the SDG Pyramid, we analyzed students' IDGs through a structured framework. Our focus was on fostering a harmonious and holistic development, with each aspect of growth emerging within specific categories. The three key dimensions – People, Ecology, and Spirituality – served as a foundation for understanding students' personal, social, and intellectual evolution.

The People category emphasized students' inner world and attitudes towards their environment. Key aspects included their thoughts, beliefs, and values, all aimed at promoting well-being and fostering a supportive learning atmosphere. Through interaction and collaboration, students developed empathy, resilience, and a sense of community. Peer-to-peer mentorship, cooperative activities, and group-based projects, students built strong connections and a sense

of community (Appendix I (B). The most frequently reported collaborative behavior was Division of tasks (12 responses), followed by Mutual support (8 responses) and Communication (7 responses). Problem-solving and Other were less common, with 3 and 4 responses respectively. The students also explored and improved their creative potential, thus developing their inner harmonious balance, and interacting effectively with their groupmates. According to Phase 4 questionnaires, the course participants reflected that "This course is motivating because it combines creativity and language learning through hands-on projects, making learning more engaging, interactive, and meaningful. It fosters cultural appreciation, enhances communication skills, and encourages collaboration, making education more dynamic and inclusive".

The Ecology category focused on meaningful learning outcomes and social engagement, guiding students toward sustainable teaching and learning experience. Their journey began with self-reflection on values and beliefs, gradually expanding to a broader global perspective. According to Phase 1survey data ("TEFL: Inter/transcultural learning and global education"), students reflected that "global citizens often demonstrate qualities like cultural awareness, empathy, and a willingness to engage in issues that transcend national borders; "People (global citizens) who are aware of their social responsibilities and have developed global awareness"; "to understand and accept people/events/places/traditions from all over the world without limiting yourself mentally as a citizen of one particular country that has to follow certain ideas(that are accepted in this country) and belong to a particular religion(again, the one that is socially accepted in the country) etc." Through this lens, students engaged in discussions and activities that encouraged them to reflect on their roles as globally conscious individuals, strengthening their commitment to sustainability and intercultural learning.

The Spiritual category highlighted students' ability of perspective-taking and reflect on their current state of mind and future actions. Within a respectful, reliable, and inclusive learning environment, students engaged in immersive and culturally sensitive collaborations. A key element of this development was the integration of diverse tools, such as art, music, and technology, which enhanced student engagement and fostered deeper learning experiences. One Phase 4 participant noted: "… integrating art, music, and technology to make learning more engaging and meaningful", enabled them "to create a collaborative learning environment that encourages active participation, using hands-on activities and projects that promote authentic language use."

A shared point of interest among students was the multilingual and multicultural nature of their learning environment. A particularly profound realization emerged through the idea that "art does not have a precise nationality but is part of the whole of humanity" (Phase 4 participant). This perspective underscored the role of creative expression in transcending cultural boundaries and fostering global understanding. The implementation of the SDG Pyramid as a structural and conceptual framework for analyzing students' IDGs provided a holistic perspective on their development. This approach not only facilitated their growth as global disseminators of knowledge but also as harmonious, proactive social agents. By fostering sustainability in both teaching and learning, this framework promoted personal transformation alongside academic and professional advancement.

### 4.2. Perspectives of the Study

One of the key potentials of this study (Phase 3) is to establish a holistic foundation for promoting **citizen science** and fostering meaningful societal impact. Students extend their engagement beyond the university setting through cooperation with national and international organizations. At JMU, they work with the *"Paritätischer Wohlfahrtsverband"* in Bavaria (Unterfranken district) as interpreters and translators. Additionally, JMU faculty members contribute to refugee education by offering a free German language course for Ukrainian schoolchildren, "DE4UA Kids," supported by the Malteser organization. These social engagement initiatives and volunteering help play a crucial role in nurturing students' empathy, social responsibility, and sense of community. Furthermore, sustainable educational practices can be effectively implemented within these abovementioned challenging contexts, offering valuable insights into refugee support and integration.

### 4.3. Expanding Research and Volunteer Engagement

A significant opportunity lies in deepening collaboration between students and volunteers, particularly in data collection and research on refugee education. For example, students could conduct surveys and interviews with schoolteachers who have experience in working with refugee students. This approach would allow for a comprehensive understanding of both academic and social challenges. Another potential lies in promoting language support programs, such as additional free German language courses, peer tutoring, and serving as buddies that could help students to overcome language barriers and improve their communication and social skills.

A crucial next step would be to involve our students in organizing workshops for schoolteachers, focusing on trauma-informed education (to address the psychological challenges refugee students face) and inclusive teaching practices (to foster a supportive and welcoming classroom environment). By experiencing the onsite challenges of working with refugee students, they could share their knowledge with young researchers from Germany and Ukraine, as well as develop a supportive learning atmosphere.

### 4.4. Building a Stronger Community

Within such a diverse and versatile teaching and learning environment, the research team would focus on community building as another crucial step. Through creation of support groups, social activities with a focus on intercultural interactions, tolerance, and empathy, we would expand the extracurricular activities to promote peer support and a sense of belonging. Due to the challenging learning conditions in Ukraine, it is also vital to develop available online and offline resources that promote language proficiency and cultural adaptation for students, their families, and teachers. To tailor specific and unique materials, the team will implement AI Tools to meet the individual needs and expectations of the target audience (Eisenmann, 2019; Eisenmann et al., 2024).

Looking ahead, the next step involves mobilizing volunteers from JMU, including students, educators, and community members, to enhance refugee education efforts. This holistic collaboration can lead to a sustainable and inclusive teaching and learning environment for Ukrainian and other displaced students. By initiating educational and social integration improvements in Würzburg, we can contribute to broader discussions on refugee education and

integration policies across Europe and beyond. Through research-driven, community-based approaches, we aim to develop long-term solutions that promote educational equity and social inclusion on a global scale.

## Conclusion

This case study demonstrates the comprehensive implementation of IDGs in fostering social activism and global citizenship among pre-service teachers. Based on a four-phase ongoing study involving participants from the Julius-Maximilians-University Würzburg, the National University "Zaporizhzhia Polytechnic," and other international partners, the study examines the impact of inter-institutional collaboration, social extracurricular activities, language promotion projects, and transcultural project-based learning. This multi-layered design reflects a novel approach to teacher education, integrating global competencies with real-world engagement.

The development and implementation of IDGs within the MAP Model (Meaning, Awareness, Purpose) provided significant insights into the students' development within three main dimensions: People, Ecological, and Spiritual. Key areas of students' experiences included the cultivation of empathy, resilience, and community engagement. These outcomes underline an innovative vision for embedding transformative competencies into teacher training. As a result, the students progressed from developing their learning experiences to actively contributing to sustainable development, mainly relating social activism as an anchor to global citizenship.

Based on the preliminary data analysis and the broader social impact of the study, this paper highlights diverse perspectives for future research and practical implementation in Global Citizenship Education (GCE). The study's forward-thinking integration of IDGs and SDGs into the curriculum represents a pioneering step toward reimagining teacher education for the 21st century. Envisioning a high potential and impact integrating IDGs and SDGs into teacher education, the findings support the adoption of a holistic approach to personal and professional growth aligned with global sustainability goals. This approach highlights the importance of preparing future educators with the knowledge and skills they need to thrive in a globally connected world and make meaningful contributions to it.

## References

de Wal Pastoor, L. (2017). Reconceptualising refugee education: Exploring the diverse learning contexts of unaccompanied young refugees upon resettlement. *Intercultural Education, 28*(2), 143–164. https://doi.org/10.1080/14675986.2017.1295572

Eisenmann, M. (2019). Teaching English: Differentiation and individualisation. UTB. https://doi.org/10.36198/9783838551098

Eisenmann, M., Ludwig, C., Summer, T., Becker, D., & Krüger, N. (Eds.). (2024). *Mental health in English language education*. Narr.

Hollister, B., Nair, P., Hill-Lindsay, S., & Chukoskie, L. (2022). Engagement in online learning: Student attitudes and behavior during COVID-19. *Frontiers in Education, 7*, Article 851019. https://doi.org/10.3389/feduc.2022.851019

Huang, Y., Zhao, C., Shu, F., & Huang, J. (2017, December). Investigating and analyzing teaching effect of blended synchronous classroom. In *2017 International Conference on Educational Innovation Through Technology (EITT)*. https://doi.org/10.1109/EITT.2017.40

Inner Development Goals. (2024, April 4). Episode 11: Sustainable transformation with a systems view [Audio podcast episode]. In Inner Development Goals Podcast.

https://podcasts.apple.com/kg/podcast/episode-11-sustainable-transformation-with-a/id1736051723?i=1000690506100

Jaiswal, A., Thomas, P. J., Karabiyik, T., Perera, V., & Magana, A. J. (2021, July). Assessing the impact of transition from face-to-face to online instruction on team cooperation. In *2021 ASEE Virtual Annual Conference*. https://doi.org/10.18260/1-2--36718

Jakubik, M., Beke, J., & Shtaltovna, Y. (2023). The role of universities: Enhancing students' capabilities for work and life. In W. E. Donald (Ed.), *Handbook of research on sustainable career ecosystems for university students and graduates* (pp. 15–37). IGI Global. https://doi.org/10.4018/978-1-6684-7442-6.ch002

Kalmar, E., Aarts, T., Bosman, E., Ford, C., de Kluijver, L., Beets, J., Veldkamp, L., Timmers, P., Besseling, D., Koopman, J., Fan, C., Berrevoets, E., Trotsenburg, M., Maton, L., van Remundt, J., Sari, E., Omar, L. W., Beinema, E., Winkel, R., & van der Sanden, M. (2022). The COVID-19 Paradox of Online Collaborative Education: When you cannot physically meet, you need more social interactions. *Heliyon*, 8(1), 1–15. https://doi.org/10.1016/j.heliyon.2022.e08823

Kenny, R. F., & McDaniel, R. (2011). The role teachers' expectations and value assessments of video games play in their adopting and integrating them into their classrooms. *British Journal of Educational Technology, 42*(2), 197–213. https://doi.org/10.1111/j.1467-8535.2009.01007.x

Koehler, C., Palaiologou, N., & Brussino, O. (2022). *Holistic refugee and newcomer education in Europe: Mapping, upscaling and institutionalising promising practices from Germany, Greece and the Netherlands*. OECD Publishing. https://doi.org/10.1787/9ea58c54-en

Largacha-Martinez, C. (2023). To the Inner Development Goals (IDGs). In A. Parra & S. G. Roglio (Eds.), *Humanistic leadership practices: Exemplary cases from different cultures* (pp. 209–224). Springer. https://doi.org/10.1007/978-3-031-34366-7_9

Lazebna, N. (2024). Spatial data mapping in foreign language teaching as a representation of multimodal and transmedial learning environments. In *Multimodality and transmediality: Interdisciplinary studies—Book of abstracts* (pp. 90–91). Second International Conference, Kharkiv, Ukraine.

Lazebna, N. (2024). UN sustainable development goals in a data-driven transnational learning environment of TEFL students. In P. Crosthwaite (Ed.), *Corpora for language teaching*. Routledge. https://doi.org/10.4324/9781003413301

Lazebna, N., et al. (2024). Educational and social integration challenges of Ukrainian refugee students in Würzburg, Germany. In M. Gutman (Ed.), *Education leadership in the shadow of wars*. Routledge. https://doi.org/10.4324/9781003571575-16

Logemann, M., Aritz, J., Cardon, P., Swartz, S., Elhaddaoui, T., Getchell, K., ... & Stapp, J. (2022). Standing strong amid a pandemic: How a global online team project stands up to the public health crisis. *British Journal of Educational Technology*, *53*(3), 577-592. https://doi.org/10.1111/bjet.13189

Lohiniva, M., & Isomöttönen, V. (2021). Novice Programming Students' Refections on Study Motivation during COVID-19 Pandemic. FIE 2021: *IEEE Frontiers in Education Conference.* https://doi.org/10.1109/FIE49875.2021.9637367

Miñán-Espigares, A., & Juárez-Romero, C. A. (2021). Project-Oriented Learning as an Optimal Methodology for the Incorporation of the SDGs in University Teaching: A Systematic Review. Preprints. https://doi.org/10.20944/preprints202104.0032.v1

Mubtaker, Y. (2024). *Inner Development Goals: Transformational Skills for Sustainable Development*. Yama Mubtaker.

Nordén, B. (2024). Advancing sustainability through higher education: Student teachers integrate Inner Development Goals (IDG) and future-oriented methodologies. *Challenges, 15*(2), Article 28. https://doi.org/10.3390/challe15020028

Ota, E., & Murakami-Suzuki, R. (2022). Effects of online problem-based learning to increase global competencies for first-year undergraduate students majoring in science and engineering in Japan. *Sustainability*, *14*(5), 2988. https://doi.org/10.3390/su14052988

Rhodes, J., Blakeley-Glover, J., Miller, A., Taylor, A., & Rochmankowski, I. (2023). Inner Development Goals and the Meaning, Awareness and Purpose (MAP) model for climate coaching. *Journal of Mental Health and Climate Change*. https://doi.org/10.5281/zenodo.8320461

SDG Pyramid. (n.d.). *About SDG Pyramid.* https://sdgpyramid.org/about-sdg-pyramid/

Shtaltovna, Y. (2024). Rewriting the future: How metamodern education can redefine society and leadership. *GILE Journal of Skills Development, 4*(2), 112–121. https://doi.org/10.52398/gjsd.2024.v4.i2.pp112-121

Tokuhama-Espinosa, T. (2015). *The new science of teaching and learning: Using the best of mind, brain, and education science in the classroom*. Teachers College Press.

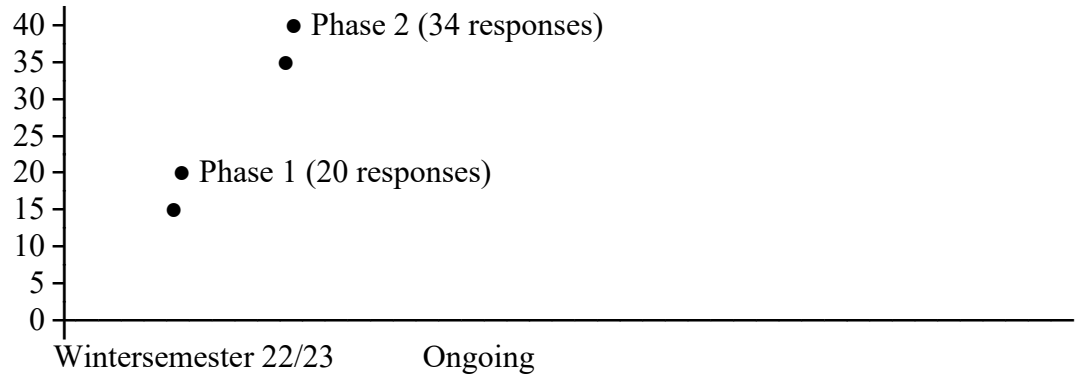
University of Würzburg. (n.d.). *BLABL.ART*. Neuphilologisches Institut – Moderne Fremdsprachen. Retrieved July 21, 2025, from https://www.neuphil.uni-wuerzburg.de/anglistik/academic-divisions/fachdidaktik-moderne-fremdsprachen-tefl/cooperations/blablart/

## Appendix I: TEFL seminar for German and Ukrainian students

| Date | Topic | Number of students | Format | Guest speaker affiliation |
|---|---|---|---|---|
| 22 December 2022 | Multiperspective representation of cultures via various texts and media | 28 | hybrid-format | Zaporizhzhia National Polytechnic University, Ukraine |
| 21 December 2022 | Inclusion, differentiation, and individualization in EFL class | 32 | hybrid-format | Zaporizhzhia National Polytechnic University, Ukraine |
| 12 May 2023 | Skills, Competencies, and Strategies in TEFL. The Intercultural Focus | 26 | hybrid-format | Cordoba University, Spain |
| 23 October 2023 | Art and Pedagogy: Slow Looking Method in TEFL Classes | 24 | onsite | CERPEK Masaryk University, Czech Republic / Mariupol State University, Ukraine |
| 23 November 2023 | Media and Materials. Introduction to Data-Driven EFL | 30 | online | Manitoba University, Canada |
| 06 December 2023 | TEFL basics: transnational insights and interdisciplinary ties | 32 | online | Singh College, Karnal, India |

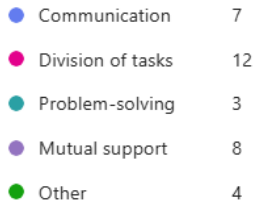
https://doi.org/10.56611/idg.casebook.001.7

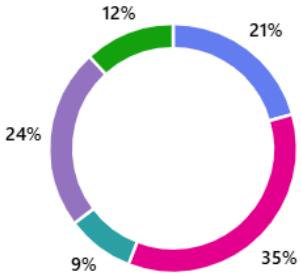
## Appendix I (A) Response Development: Wintersemester 2022/23 – Ongoing




## Appendix I (B): Aspects of Teamwork

13. What aspects of teamwork were most evident in the project? (Select all that apply)




## Appendix II: BLABL.ART Partners

1. University of Charles Prague (the Czech Republic)
2. University Enna Kore (Italy)
3. European University of Rome (Italy)
4. INSPÉ de l'Académie Versailles (France)
5. Université Paris Est Créteil (France)
6. University of Padova (Italy)
7. INSPE, Université de La Réunion (France)

## Appendix III: Social Impact of the Study

- Since May 2023: Moderation of learning and organizational support for students from Ukraine in Germany, focusing on foreign language acquisition (German and English), in collaboration with Malteser and "Der Paritätische in Bayern, with additional support from the TEFL and Slavistics Department at JMU.
- Since April 2023: Organization and moderation of an online Multilingual Speaking Club for German and Ukrainian students.

- 19 December 2024: Visit of Ukrainian children from the German course to Marie-Juchacz-Haus, a nursing home, where they perform Christmas songs (organized by Malteser)
- Mid-February 2025 (planned): Expansion of language support to schoolchildren and their parents from various countries in Würzburg, supported by Stadt Würzburg.
- 9 May 2025 (planned): Presentation of the project at the online event organized by the interdisciplinary scientific network Vision Ukraine: Bildung, Sprache, Migration. The extended version of the project will focus on the integration of AI into free German/English language classes and present preliminary findings on teachers' challenges and inclusive solutions for foreign students. Teachers from Würzburg schools, parents, extracurricular educators, and volunteers will participate in the discussion.

## Declaration Statements

### Conflict of Interest
The authors report no conflict of interest.

### Funding
The authors received no financial support for this chapter's research, authorship, and/or publication.

### Data Availability
Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement
The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Nataliia Lazebna who can be contacted by email via nataliia.lazebna@uni-wuerzburg.de

https://doi.org/10.56611/idg.casebook.001.8

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

## Spaces of Resonance: Cultivating the Being and Relating Dimensions of the Inner Development Goals through Communities of Practice in Higher Education

**Bianca Briciu**
Saint Paul University, Ottawa, Canada
ORCID: 0000-0002-4585-3424

**Ioana Smarandita-Arbone**
Saint Paul University, Ottawa, Canada
ORCID: 0000-0001-6674-4748

**Michaël Séguin**
Saint Paul University, Ottawa, Canada
ORCID: 0000-0001-7638-7115

**Marquis Bureau**
Saint Paul University, Ottawa, Canada
ORCID: 0009-0006-7563-2776

**Gabrielle Dupuis**
Saint Paul University, Ottawa, Canada
ORCID: 0009-0004-1397-2762

**Abstract**

Universities are encouraged to assume a more proactive role in the transformation of individuals, relationships, and society; however, traditional approaches in higher education often fail to cultivate the inner capacities necessary to address global challenges. The Inner Development Goals (IDG) framework offers a systematic methodology for fostering inner and interpersonal competencies, particularly through its Being and Relating dimensions. Nevertheless, limited research exists regarding the effective implementation of these dimensions within higher education, resulting in a disconnect between aspirational goals and practical application. This case study explores a community of practice that engaged 15 students in six sessions using mindfulness, somatic, arts-based, and psychospiritual transformative approaches. Based on qualitative thematic analysis, we examined the impact of these approaches on the Being and Relating dimensions of the IDG. The research emphasizes the important role of interconnectedness and resonance as fundamental

sources of self-awareness and empathy. Through interconnectedness, students learned about themselves as well as others, thus developing two of the main IDG competencies. Resonant spaces where students can learn about each other and themselves through interactions can be nurtured through appropriate methodologies. The IDG framework offers a systematic methodology for fostering inner and interpersonal competencies, particularly through its Being and Relating dimensions. Nevertheless, limited research exists regarding the effective implementation of these dimensions within higher education, resulting in a disconnect between aspirational goals and practical application. This case study explores a community of practice that engaged 15 students in six sessions using mindfulness, somatic, arts-based, and psychospiritual transformative approaches.

***Keywords/key phrases***: Inner Development Goals (IDG/IDGs), transformative learning, resonance, higher education, being, relating

## 1. Introduction

Universities are called to become agents of personal, interpersonal, and social transformation (Scharmer, 2019; Throop, 2024). While social transformation has been a long-standing goal of higher education, in the last few decades we have seen an increasing concern with the inner world, and the cultivation of empathy and collaboration capacities for sustainability as pillars of social transformation (Disterheft, 2024). A systematic study of the worldview of higher education institutions by Giesenbauer and Müler-Christ (2020), shows the need to change their operating system to an integrative worldview based on whole person development and systems-centric, co-creative, transdisciplinary perspectives.

However, this intention is undermined by the measuring of academic success through rankings according to specialized disciplines (Giesenbauer & Müler-Christ, 2020, p. 2), the neoliberal logic of commodified education based on efficiency, competition, and hierarchy (Giroux, 2014), the overemphasis on technocratic and conventional approaches to education as a pathway for employment (Martela, 2024), and the constant increase in mental health issues leading to disengagement (Olson et al., 2025; Weber et al., 2024). The United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Organization for Economic Co-operation and Development (OECD) advocate for a more complex vision of higher education that focuses on whole person optimal development and the quality of life for all (Martela, 2024, p. 181).

The global framework of Inner Development Goals (IDG) offers a complex mapping of the competencies that contribute to whole person optimal development (Ankrah et al., 2023). Reimagining higher education involves holistic and systems-based approaches that address the crucial role of inner and interpersonal capacities as sources for sustainability. The cultivation of latent inner and relational capacities for self-awareness, empathy, connectedness, systems-thinking, and resilience can support hope and motivation to engage more effectively with current global challenges (Throop, 2024).

This casebook analyses the contribution of transformative learning approaches to the inner and interpersonal development of students, focusing on the Inner Development Goals (IDGs) dimensions of Being and Relating. The IDG framework currently includes five dimensions with a total of 25 subcategories: Being, Thinking, Relating, Collaborating, and Acting (Inner Development Goals, n.d.). While the name of IDGs refers to Inner Development Goals, its framework also includes aspects of interpersonal development, most salient in the Relating and

Collaborating dimensions. The purpose of this case study is first to examine the impact of transformative approaches used in the community of practice on the dimensions of Being and Relating. Second, we will explore the interconnected, mutually enhancing nature of these two dimensions relying on the concept of resonance. Rosa (2019) highlights the concept of resonance as the alternative to the acceleration, instrumentalization, and alienation of life in modernity. Resonance means the capacity to be affected, touched by the world at an emotional level, and responding in an agentic, effective way, reducing alienation and loneliness. It involves a fluid, vibrating, and mutually transformative connection that involves deep listening, effective response, and openness to mystery (Rosa, 2019, p. 167).

Creating spaces of resonance is an act of resistance to the forces of alienation, loneliness and disconnection of modern life, restoring the kind of relationality that contributes to a positive quality of life. It challenges the separation between self and others, the inner and interpersonal, offering a framework for an interconnected way of "being-in-the world" (Rosa, 2019).

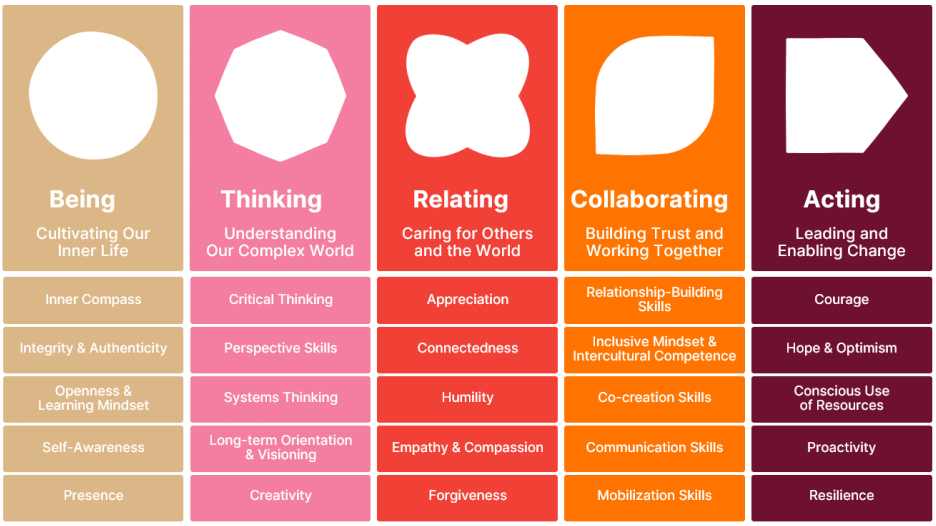
The community of practice engaged 15 students at our university in six sessions that used mindfulness, somatic, arts-based and psychospiritual development approaches as an experiential lab to examine their contribution to the Being and Relating dimensions of the inner development goals. We focused on these 2 dimensions because they are less present in academic teaching compared to the thinking or collaboration pillars, despite their ontological and foundational nature (Walsh et al., 2021).

## 2. Literature Review

### 2.1. Inner Development Goals (IDGs)

The Inner Development Goals framework was created in 2020 order to support Sustainable Development Goals (SDGs) through inner transformation (Inner Development Goals, n.d.). With the input of more than 1000 experts, scientists, and practitioners, the IDG framework includes five dimensions with 25 skills. These five dimensions are: Being; Thinking; Relating; Collaborating; and Acting (see Figure 1 below).

FIGURE 1. IDG FRAMEWORK




Source: Inner Development Goals, n.d.

## 2.2. Experiential Learning and Transformative Approaches

Although not considered a complete solution, the IDG offer a strategic outline of competencies that educational institutions should prioritize to facilitate whole person education and the advancement of sustainability goals (Wood, 2024; Ankrah et al., 2023).

There have been many initiatives to implement IDGs in higher education through diverse approaches, such as: reflective and self-awareness practices, including contemplative practices and mindfulness; experiential and embodied learning; assessment and evaluation innovations; safe learning spaces; systemic and multi-level approaches; relational approaches, community and collaborative learning practices.

Reflective and self-awareness practices involve different forms of meditation (e.g., Rodriguez Carreon & Vozniak, 2021; Disterheft, 2024; Pöllänen et al., 2023) as well as the cultivation of specific competencies. A particular competency is the management of complexity and uncertainty. For example, Ayers et al. (2023) identified the ability to "hold complexity" as one of eight crucial capacities to navigate situations of high ambiguity and paradox. Garcia-Alvarez et al. (2023) noted the higher level of ambiguity and complexity in the current world, which requires new educational approaches.

Experiential and embodied learning has been used by authors such as Rodriguez Carreon and Vozniak (2021) as well as by Pöllänen et al. (2023) as innovative approaches to support a deeper engagement with the material instead of memorization and cognitive learning. Assessment and evaluation innovations also have the role of enhancing IDGs skills. Such innovations include the use of alternative assessment formats (photography, art, poetry) for reflection (Rodriguez Carreon & Vozniak, 2021).

However, such new approaches need to be nurtured in the proper environment. The idea of safe learning spaces was explored by Bryant et al. (2021), who found that a sense of belonging to a community acts as a safe container for students to transform their worldviews. Similarly, Woiwode et al. (2021) recommended the creation of "spaces for emergence" as safe environments in which students can challenge their beliefs. Systemic and multi-level approaches emphasize the need for a fundamental transformation of educational spaces that would reconfigure the role of the university within broader society (Fathi, 2022; Garcia-Alvarez et al., 2023; Jakubik et al., 2023; Woiwode et al., 2021).

## 2.3. Relationality and Spaces of Resonance

Several authors argued for the crucial role of relationality in transformative learning (Böhme et al., 2022; Bryant et al., 2021; Walsh et al., 2021), despite the marginalization of this dimension in academic education (Walsh et al., 2021). Indeed, Walsh et al. (2021) argued the concept of relationality as a fundamental leverage for sustainability. The current study is also evidence of the importance of relationality.

A relational framework sees humans as deeply connected to nature and in a constant process of becoming through various relationships (Böhme et al., 2022). Many studies show the important role of groups and the need for collaboration in developing key competencies (Engel & Janssen, 2024; Nordén, 2024). For example, Bryant et al.'s (2021) study of the Master's in Strategic

Leadership toward Sustainability (MSLS) identified community as important for creating a safe container where growth and critical reflection is possible.

This need for relational and holistic frameworks has been further evidenced in other works (Pöllänen et al., 2023; Walsh et al., 2021; Woiwode et al., 2021). For example, Pöllänen et al. (2023) highlighted the importance of bridging gaps across individual, collective, and system levels through their assessment of the sustainability course titled "One Year in Transition" in Sweden. Previously, Walsh et al. (2021) advocated for dissolving barriers between "inner" and "outer," as well as "personal" and "collective," dimensions of sustainability.

## 3. Methodology

### 3.1. Overview

In the fall of 2024, a group of fifteen students from a bilingual university in Eastern Canada voluntarily joined 6 sessions of a community of practice where they engaged in diverse transformative approaches for inner development. There were 8 undergraduate and 7 graduate students, 13 females and 2 males, between 22 and 50 years old. Participants were recruited through announcements in relevant courses and an open call sent via email to all students. This research relies on the qualitative methodology of focus groups to test the impact of the communities of practice based on the principles of participatory action research that integrates research results to benefit the community (Caine & Mill, 2015). We organized three 90 min. focus groups at the end of the community of practice, asking participants about the impact of the practices on their inner development. Focus groups facilitate a rich insight into participants' subjective experiences and attitudes, empowering participants to contribute to the meaning-making process (Kitzinger, 1995). The communities of practice were designed based on the principles of integral transformative learning (Ferrer et al., 2005), with a special focus on inner and interpersonal development. They were led by a multidisciplinary team.

### 3.2. Description of Transformative Approaches in the Community of Practice

Table 1 below provides an overview of all six sessions, their duration, focus areas, and key methodologies used.

TABLE 1. OVERVIEW OF COMMUNITY OF PRACTICE SESSIONS

**(Co-created by facilitators: Bianca Briciu, Marquis Bureau, Michaël Séguin, Jan Bentham, Stéphanie Larrue, 2024)**

| Session | Duration | Focus Area | Key Methodologies | IDG Dimensions |
|---|---|---|---|---|
| 1 | 90 min | Mindfulness and Self-Awareness | Mindfulness practice, River of Life drawing | Being |
| 2 | 90 min | Embodied Sensing and Belonging | Social Presencing Theater, embodied movement | Being, Relating |
| 3 | 90 min | Care and Resonance | Empathic dialogue, care ethics | Relating |
| 4 | 90 min | Creativity and Well-being | Arts-based posters, drama play | Being, Relating |

| | | | | |
|---|---|---|---|---|
| 5 | 90 min | Trauma Integration | Safe space for dialogue, shadow work | Being |
| 6 | 90 min | Psychospiritual Integration | Integrated Mask exercise, spiritual emergence | Being, Relating |

Source: own compilation/ calculations

The aim of the community of practice was to engage participants in a series of experiential, transformative approaches meant to deepen awareness of their inner world, develop empathic, trusting relationships with others, and cultivate capacities for flourishing. The exercises were based on mindfulness, arts-based, and psychospiritual development methods chosen in a sequential way as a journey to enhance openness, authenticity, and resonance with others. Its main purpose was to facilitate a shift from an ego to an eco-perspective (Scharmer, 2018). According to the IDG framework (Inner Development Goals, n.d), the workshops aimed to develop the dimensions of Being (inner compass, integrity and authenticity, openness, self-awareness, presence) and Relating (appreciation, connectedness, humility, empathy and compassion, forgiveness). Sessions were structured as circles that emphasized deep listening, authentic sharing and loving presence.

The first session focused on mindfulness and self-awareness. It started with a practice of mindfulness and continued with the River of Life guided drawing exercise for a reflection on participants' meaning and life purpose. Mindfulness is the gesture of slowing down, paying attention to aspects of embodied experience that are overlooked in the habitual action-driven ways of engaging. It means "awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally" (Kabat-Zinn, 1994, pp. 3-4). Mindfulness increases attention to one's sensations and emotions, creating more awareness of one's inner state of being without judgment. This opens more possibilities for recognizing and ultimately changing harmful emotions or habits, while also expanding one's range of perception. The practice of mindfulness is to become a caring witness to the flow and quality of one's own life (Kabat-Zinn, 1994). The images of the River of Life served as sources for reflection and dialogue on participants' life journey, challenges, and transformation.

The second workshop used Social Presencing Theater (SPT) as a practice for sensing one's relationship to a larger social body (Scharmer, 2018). SPT is an embodied technology for systems change developed at the Presencing Institute. Through embodied sensing, movement and reflection, it creates awareness about the unseen dynamics of social structures and offers glimpses of emerging future possibilities (Hayashi, 2018). The invitation for participants was to express through group structures their sense of belonging and inclusion in the learning environment. They worked in small groups of 4 to create sculptures, with each person placing others in relation to their body as they sensed into their level of connection/disconnection in the classroom experience. The second part of the exercise was to move in a desired direction where each person would feel a sense of belonging with others. This embodied practice revealed the invisible but deeply felt relational dynamics of disconnection, and the longing for connection.

The third session focused on care and resonance as the pillars of a relational ethics that underpins flourishing. It created a space for authentic exchanges where participants could practice listening, empathy, and reciprocity. The principles of a care ethics are based on Gilligan's (1982) emphasis on relationality, vulnerability and needs, rather than abstract

principles of justice. Care is essential for sustaining democratic values and fostering resilience in the face of social and personal challenges (Fleury, 2019). The practice of empathic dialogue emphasized the importance of the quality of listening, vulnerability, and authentic connection. Listening is the most important leadership skill, but also the most easily overlooked in systems that value expression and action (Scharmer, 2019). The quality of listening enhances the authenticity of expression and contributes to resonance, a crucial aspect of a fulfilling and meaningful life (Rosa, 2019).

The fourth session engaged the collaborative and regenerative potential of creativity. Participants created posters of well-being in small groups reflecting on the elements that form a quality of life. They also created a short dramatic piece with movement and voice either in the form of tableaux or pantomime to express the influence of technology on well-being. Creativity can lessen anxiety, heighten social awareness, and provide new insights on issues of concern today, cultivating hope and engagement. Our creative impulses carry the essence of our humanness, the heart of our dignity (Fox, 2002). Arts-based approaches engage cognition, emotions and the body, increasing awareness of the unconscious and providing new ways of understanding and relating to the world (Romanowska et al., 2014). They contribute to meaning, positive emotions, relationships, and engagement of the whole person.

The fifth session invited participants to explore deeper aspects of their inner world. They engaged in a process of shadow work and trauma integration, exploring the maladaptive responses created by trauma (Briciu & MacDonald, 2024). Experiences of complex trauma create the long-term effects of losing deep connection with one's authentic self, and with others, a form of double alienation (Maté, 2009). Trauma responses create fear-based patterns of engagement with the world and freeze perception, reducing presence, trust, and empathy (Hübl & Avritt, 2020). This session involved more vulnerability, and we created extra levels of emotional safety through music, meditation on resilience and the invitation to share in dyads using the safe space for dialogue method (Briciu et al., 2024). Turning toward trauma in safe relationships contributes to more awareness of repressed parts of the self, restoring wholeness, expanding the range of emotions, and creating deeper connection with others.

The last session introduced the concept of psychospiritual integration as an approach meant to integrate different aspects of the self toward better functioning and overall health (Siegel, 2012). Participants were invited to share and reflect on experiences of transcendence that transformed their worldviews. Using Grof & Grof's (1989) concepts of spiritual emergence and emergency, we explored how certain peak experiences of openness of the self to spirituality could be moments of unity and flow or experiences of crisis and suffering. The Integrated Mask exercise invited participants to draw three masks representing a positive spiritual experience, a painful one, and a third one that integrated the two. This session explored the complexity of spirituality and the importance of learning both from pleasant and painful experiences.

These sessions created emancipatory and whole person-based processes in a safe and caring group container to facilitate expression of different parts of the self (emotional, embodied, spiritual), contributing to self-awareness, connection, and well-being. They brought to the surface latent inner and relational capacities with the potential to cultivate well-being from the inside out and in community.

## 4. Findings

### 4.1. Being

In the IDG framework, the dimension of Being includes the following aspects: inner compass, integrity and authenticity, openness and learning mindset, self-awareness and presence (Inner Development Goals, n.d.). The communities of practice had a most significant positive impact on two of these aspects: self-awareness, and openness through vulnerability.

#### *4.1.1. Self-awareness for Authentic Presence*

Participants reflected on their inner world through mindfulness, creative expression of emotions, embodied representation, journaling, and circle-based dialogue. Two important aspects of self-awareness were the ability to show up in an authentic way with others, and more acceptance of one's weaknesses. Social participation involves a negotiation between expressing one's authentic self and the management of others' perception of oneself. Being witnessed in a safe and caring way increases awareness of one's inner world and emotional responses. As one student mentioned,

> *I think maybe because I am a solitary human and I like solitary activities, I don't usually do big group things. So, it made me more mindful of how I present myself and of the things that are coming out of my mouth. Do they resonate as being authentic to what I have to say? […] So, I think it made me more mindful about how I view things, what my opinions are about things and how I want to present those (Speaker 1, Focus Group 1).*

Another student shared the importance of creating safety. Being free of the fear of judgment and the desire for social acceptance, participants could connect to and accept certain parts of themselves that they were trying to hide because of perceiving them as weaknesses. This contributes to a more holistic perception of one's inner world by holding in awareness both one's strengths and one's weaknesses.

> *I feel that it connected me with my weaknesses. And that was a step in understanding myself. For the strength also, I think they were developing within the practice. Just to be present was helping me just to let myself explore myself - it was very experiential - I was developing myself through the experiences, like the theater, seeing myself act again and enjoying that. So it was a lot of little capacities that I was developing here and there. (Speaker 4, Focus Group 3)*

#### *4.1.2. Vulnerability that Leads to Openness and Learning Mindset*

Four participants mentioned the role of vulnerability in creating openness, connection, and a learning mindset that allowed them to pay attention differently.

One participant expressed this eloquently:

> *A lot of our world tells us to be strong or to be hard or to be still. This practice, this community showed a really deep strength in everyone about being vulnerable. Everyone developed - they walked in stiff and defensive and wanting to connect but not really knowing how… And I've noticed that I myself am willing to be more vulnerable with people and more emotionally honest, maybe[...] I feel I have a deeper confidence in being vulnerable and allowing myself to be seen as vulnerable, that I really struggled with before. (Speaker 3, Focus Group 3)*

Experiences of judgment, exclusion or rejection and the lack of safe spaces for self-expression can lead to the closing up of the self, increasing disconnection, fear, and psychological protection mechanisms. The warm, empathetic presence and unconditional regard of others in the circles of the community of practice facilitated more openness to vulnerability and connection. One participant highlighted the value of welcoming, warm approaches that supported vulnerability.

> *It gave me an opportunity to feel I could be a little bit more vulnerable because it was less structured. And there was a circle, and we were very warmly welcomed by the facilitators. So, it was very positive. In some ways, my life also, as [previous speaker] said, affected my mood when I would first arrive at the circles. But overall, I think it really had a positive impact on my reflexivity and my ability to reflect on - just by hearing other stories - on my own life and my own goals. (Speaker 1, Focus Group 2)*

These reflections show vulnerability as a source of courage, connection, and authenticity, shifting its perception as a weakness. Vulnerability involves uncertainty, risk and exposure, but it opens the self to deeper connection, empathy, and authenticity (Brown, 2012). The community of practice created opportunities for participants to engage with vulnerability and value its outcome, despite the initial discomfort.

### 4.2. Relating

In the IDG framework, the dimension of Relating includes the following: appreciation, connectedness, humility, forgiveness, empathy and compassion (Inner Development Goals, n.d.). The analysis of focus groups showed a significant impact on three of these aspects: connectedness, empathy and compassion.

#### *4.2.1. Connectedness and Empathy*

The circle dialogue in the community of practice emphasized empathic listening through questions and exercises that students shared in dyads, small groups and the larger circle where each person had a chance to share their experience and listen with full attention to the sharing of others. Another element that cultivated empathy was the specific focus on personal emotional and spiritual experiences. Empathy deepened through empathic dialogue that decentered the ego-based mindset of individualism, making it possible for participants to sense the inner world of others, while becoming more aware of their own inner world (Briciu et al., 2024, p. 2). This increased connectedness as a shift to a more eco-based mindset. One participant shared the following reflection:

> *Just to build on those skills as well, because there are so many opportunities to actively listen and not just reflect on your own things, but help other people reflect on their things, through your presence and your body language and everything. I think learning how to be a better listener was also something that I got out of the group. (Speaker 1, Focus Group 1)*

The community of practice not only created opportunities to form deeper relationships with students in other departments, but also reinforced a sense of shared humanity, an awareness that emotions are shared with other people, reducing loneliness. Participants could recognize themselves in the emotional and spiritual experiences of others. As one student shared,

> *I don't know if this counts if it was a reaffirmation, but it was reaffirming to a previously held belief that human connection is the easiest, not necessarily the cleanest, but the easiest way to get something done is to work with another human. It doesn't mean it's not bumpy. But it was a reaffirmation as we went through week to week that I thought "it's funny, I've come across this theme before. It's funny, I have different language for this, but it exists for me." And so, for me, it was a strengthening of inner being. (Speaker 2, Focus Group 3)*

#### *4.2.2. Empathy and Compassion as Sources of Well-being*

As participants engaged in transformative practices that invited the exploration of their inner world, they could access more kindness and care for others, which supported an experience of well-being. The sense of empathy in the group reduced stress and tension, helping students trust that they would be held in the caring attention of others. One student reflected on the reciprocity of kindness and care that created a climate of well-being for all participants.

> *For me, the element that contributed to my well-being was the kindness of everybody. That was really very welcome. And it continued week after week, month after month. It was very nice to feel cared about and to give the same space to others. (Speaker 4, Focus Group 3)*

As participants shared more difficult emotional experiences of grief, anxiety, loss or despair through the exercises of trauma integration and spiritual emergence, they accessed a sense of compassion for themselves and others, realizing the multiple facets of suffering and struggle. Compassion was seen as a nurturing relational source that invited participants to tolerate the discomfort of witnessing the struggles of others and holding space for them.

> *I feel my sense of compassion for others and my compassion for myself - I feel it was huge. I think I really developed, I started to tone that muscle. Just knowing people like [another speaker] - seeing you not in a good mood. It made me sad. I felt I just had a lot of compassion for you (Speaker 1, Focus Group 2)*

### 4.3. Resonance and an Interconnected, Eco-based Mindset

One of the interesting findings in analysing the responses to the focus group was the blurring of rigid boundaries between self and others through the experience of interconnectedness. Participants experienced a shift from the ego-based mindset of individualism to an eco-based understanding of experience as a set of relationships. The more deeply students could connect to each other, the more aware they became of their inner world and the other way around, an aspect that shows the interdependence of Being and Relating. This finding shows the relational dimension of inner development as a way of knowing oneself through others, a process explained by the concept of resonance (Rosa, 2019). Resonance is a mutually balancing act of interaction with others and the world, in which the subject is touched or affected by others, responding with interest, emotion, and a sense of self-efficacy, without control of the outcome (Rosa, 2019). Resonance creates open and fluid engagement with others, creating relationships that vibrate with wires of mutual connection while remaining open to transformation (Rosa, 2019, p. 170).

Sharing deep emotional experiences, both positive and painful, engaging with personal stories, and with the felt senses of the body (Through Social Presencing Theater) helped participants

access the dimension of an interconnected self that supports belonging and well-being, reducing isolation and loneliness. As one participant shared,

> *And also, I felt after sitting in a circle and maybe not speaking all the time, but I felt other people's stories and examples and jokes even I would feel 'oh, that would help me reconnect to myself or someone or a moment in my past or a stage in my life.' So, it was really nice to actually just listen and take it all in. And that really rekindled in me a connection with myself that maybe I haven't had in a while since I haven't been really socially active and I've been living a different kind of pace of life. (Speaker 1, Focus Group 2)*

Another participant highlighted the process of remembering one's own stories through the stories of others. Resonance in this case meant an open flow of emotions and energy that increased the connection with self and others. As one was touched by the inner world of others, their own inner world also touched and contributed to the transformation of others.

> *And also just to echo what [previous speaker] mentioned - when somebody would share something that would make me remember something about myself and just make me connect with that person, but connect with myself as well. (Speaker 5, Focus Group 3)*

We can see in these reflections that creating safe spaces and processes for deep listening and empathic dialogue, increase resonance as a relational way of being in the world. The transformative approaches created a shift from an individualistic, ego-based perception to the eco-based perception of Being as Relating.

### 4.4. Additional Dimensions

While this study primarily focused on the Being and Relating dimensions of the IDG framework, participants' reflections occasionally touched upon other dimensions. Some participants mentioned increased awareness of systems dynamics (Thinking dimension), enhanced capacity for collaboration and trust-building (Collaborating dimension), and greater motivation to act with purpose and courage (Acting dimension). However, these dimensions emerged organically rather than being explicitly targeted, and were less prominent in the findings. This suggests that deep work on Being and Relating may serve as a foundation that supports the development of other IDG dimensions, though further research would be needed to explore these connections more systematically.

## 5. Discussion

The results show the interdependence of Being and Relating as foundational aspects of the inner development goals. A relational ontology perspective postulates that "all entities emerge out of their constitutive relations" (Disterheft, 2024, p. 30). Such a perspective addresses the concern that inner development is an individualistic framework that overlooks important systemic and cultural aspects (Barret, 2025). A relational ontology pays attention to the interconnected dimension of relationships, weaving a web of connection that fosters belonging, safety and trust. Fostering connections and providing social support are crucial to students' optimal development (Lindsay et al., 2022).

The communities of practice created spaces and processes where participants felt genuinely safe, understood, and cared for. The mindfulness practice in each session created a state of calm and increased attention, while the various means to explore one's inner world led to deeper self-awareness and connections with others. Participants experienced an interconnected self through resonance with the stories and emotional experiences of others, accessing a more eco-systemic mindset (Scharmer, 2018). Self-awareness was enhanced by the ability to see oneself through the eyes of others and reflect on one's authentic presence, a quality overlooked in traditional academic approaches (Libertson, 2023). The empathy and non-judgmental acceptance of the group helped participants become more vulnerable to access and reveal parts of themselves that they kept hidden and saw as weaknesses. This process contributed to wholeness and integration.

The dialogue based on empathic listening deepened connections and supported participants to become witnesses to each other's inner worlds, experiencing the reciprocity of empathy and compassion. The community of practice provided a laboratory to cultivate spaces of resonance that supported the experience of interconnected self, enhancing self-awareness, relational thinking, and a caring perspective. Sensing the interconnectedness of life increases "an embodied understanding of care" (Disterheft, 2024, p. 29), undoing the ego-centric and self-serving worldview of individualism (Butler, 2019). This eco-systemic perspective is seen as a deep leverage point for transformation (Disterheft, 2024).

As we have seen in this case study, shifting the ego-based worldview of individualism and separation to a relational, empathic eco-based perspective requires a caring container and group experiential processes for exploring the inner world. According to Rosa (2019), the safe sharing of emotional and spiritual experiences leads to resonance as a relational ontology that contributes to the quality of life, undoing the stress and isolation created by alienation or hostility. He highlights a pedagogy of resonance supports the right conditions for openness, vulnerability, and transformative relationships that are non-instrumental, an experience where students do not merely process information, but are also touched and transformed by others. Resonance contributes to whole-person development and the quality of one's engagement in the process of learning, creating a culture of encounter and transformation (Rosa, 2019). The development of intrapersonal and interpersonal competencies in the Being and Relating dimensions of IDGs fosters an experience of shared meaning and belonging that are foundational for sustainable collaboration.

## 6. Conclusion

This case study showed the impact of mindfulness, arts-based and psychospiritual development approaches on the Being and Relating dimensions of the IDG. Participants in the community of practice showed increased levels of self-awareness and tolerance for vulnerability at the Being level. At the Relating level, they expressed an increase in empathy, care and compassion, through a deeper sense of connectedness.

Can resonant spaces that foster inner and interpersonal capacities be recreated in the academic classroom or do they require communities of practice as "islands of sanity" (Wheatley, 2017)?

The practical implication of this research is the outline of transformative methodologies that contribute to the development of inner and relational capacities fostering resonance: circle-based empathic dialogue, sharing of emotional and spiritual experiences from a holistic perspective, empathy created by a welcoming and non-judgmental group attitude, mindfulness

practice, arts-based and embodied methodologies such as Social Presencing Theater, The River of Life, Shadow work, or the Integration Masks presented above, that reduce the discomfort of vulnerability and contribute to deeper connection. These methodologies integrate the cognitive, emotional, embodied, spiritual and relational intelligence, in line with the holistic approaches promoted by the IDG framework (Wood, 2024). These methodologies can be used in the classroom as transformative, whole-person pedagogies (Briciu et al., under review; Disterheft, 2024), and they can also inform the creation of communities of practice as spaces of resonance.

This study increases knowledge about the development of Being and Relating dimension of the IDGs that lay the foundations for a relational, eco-based worldview, and deep bonds that foster care, empathy and compassion. Ultimately, creating spaces of resonance in higher education offers a pathway toward addressing the isolation, alienation, and disconnection that characterize modern university life, while cultivating the inner and relational capacities necessary for addressing the complex challenges of our time.

### 6.1. Limitations and Conditions for Replicability

This study has several important limitations. First, the small sample size (n=15) and voluntary participation may have attracted students already inclined toward inner development work, potentially limiting generalizability. Second, the Canadian university context, with its emphasis on bilingualism, multiculturalism, and inclusive values, may have provided a particularly receptive environment for this work.

For successful replication, several conditions appear essential: (1) caring facilitators with training in transformative methodologies and trauma-informed practices; (2) institutional support, including dedicated space and time; (3) careful attention to creating psychological safety through clear agreements and gradual deepening of vulnerability; (4) sequential design that builds trust progressively; and (5) a cultural or institutional context that values holistic development. Adaptation to different cultural contexts would require sensitivity to local norms around emotional expression, group sharing, and spirituality.

### 6.2. Future Directions

Moving forward, this work points to several important directions. First, there is a need for longitudinal studies to assess whether the transformations observed persist over time and translate into sustained changes in students' lives. Second, research should explore how these approaches can be scaled and integrated into formal curricula while maintaining their transformative potential. Third, cross-cultural studies would help identify which elements are universally applicable and which require cultural adaptation. Finally, investigating the interplay between different IDG dimensions could reveal how cultivating Being and Relating creates ripple effects across Thinking, Collaborating, and Acting dimensions.

## References


Ankrah, D., Bristow, J., Hires, D., & Henriksson, J. A. (2023). Inner Development Goals: From inner growth to outer change. *Field Actions Science Reports, 25*, 82–87. http://journals.openedition.org/factsreports/7326

Ayers, J., Missimer, M., & Bryant, J. (2023). Intrapersonal capacities for sustainability: A change agent perspective on the 'inner dimension' of sustainability work. *Sustainability Science, 18*(3), 1181–1197. https://doi.org/10.1007/s11625-022-01288-8

Barret, R. (2025, July 6). The inner development goals. *Evolutionary Journal*. https://barrettvalues.substack.com/p/the-inner-development-goals

Böhme, J., Walsh, Z., & Wamsler, C. (2022). Sustainable lifestyles: Towards a relational approach. *Sustainability Science, 17*(5), 2063–2076. https://doi.org/10.1007/s11625-022-01117-y

Briciu, B., Michel, S., & Chavez, R. (2024). Safe space for dialogue—A practice for connected consciousness and compassion. *Challenges, 15*(3), 36. https://doi.org/10.3390/challe15030036

Briciu, B., & MacDonald. (2024). Making the darkness conscious: Collective shadow work for the spiritual development of leaders. In M. Raei, S.K. Guenther, & L. A. Berkley (Eds.), *Leadership at the spiritual edge: Emerging and non-Western concepts of leadership and spirituality* (pp. 243–263). Routledge. https://doi-org.proxy.bib.uottawa.ca/10.4324/9781003396741

Briciu, B., Séguin, M., Arbone, I. S., Bureau, M., Dupuis, G., & Jean-Vézina, P. (in press). Education for flourishing: Inner and interpersonal development through integral transformative learning. *Journal of Transformative Education.*

Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead.* Penguin Books.

Bryant, J., Ayers, J., Missimer, M., & Broman, G. (2021). Transformational learning for sustainability leadership—Essential components in synergy. *International Journal of Sustainability in Higher Education, 22*(8), 190–207. https://doi.org/10.1108/IJSHE-01-2021-0014

Butler, S. (2019). The impact of advanced capitalism on well-being: An evidence-informed model. *Human Arenas, 2*(2), 200–227. https://doi.org/10.1007/s42087-018-0034-6

Caine, V., & Mill, J. (2015). *Essentials of community-based research.* Left Coast Press.

Disterheft, A. (2024). Nurturing a caring university: Exploring inner and outer sustainability for transformative change in higher education. In *Sustainability in Higher Education: Strategies, Performance and Future Challenges* (pp. 27–51). Springer. https://doi.org/10.1007/978-3-031-54026-4_2

Engel, S., & Janssen, C. (2024). The Inner Development Goals as an innovative approach to sustainable development: Conceptualization, implementation, and evaluation of an experiential university seminar for holistic sustainability education. *IntechOpen.* https://www.intechopen.com/chapters/1193423

Fathi, K. (2022). *Multi-resilience - development - sustainability: Requirements for securing the future of societies in the 21st century.* Springer. https://doi.org/10.1007/978-3-658-37892-9

Ferrer, J. N., Romero, M., & Albareda, R. (2005). Integral transformative education: A participatory proposal. *Journal of Transformative Education, 3*(4), 306–330. https://doi.org/10.1177/1541344605279175

Fleury, C. (2019). *Le soin est un humanisme* (Tracts No. 6). Gallimard.

Fox, M. (2002). *Creativity: Where the divine and the human meet.* Jeremy P. Tarcher/Putnam.

Garcia-Alvarez, M., Rekalde-Rodríguez, I., & Gil-Molina, P. (2023). No transition without transformation: Educating sustainability. In *Implementing the UN Sustainable Development Goals—Regional Perspectives* (pp. 1–35). Springer. https://doi.org/10.1007/978-3-030-91261-1_98-1

Giesenbauer, B., & Müller-Christ, G. (2020). University 4.0: Promoting the transformation of higher education institutions toward sustainable development. *Sustainability, 12*(8), 3371. https://doi.org/10.3390/su12083371

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Harvard University Press.

Giroux, H. A. (2014). *Neoliberalism's war on higher education.* Haymarket Books.

Grof, S., & Grof, C. (1989). *Spiritual emergency: When personal transformation becomes a crisis* (1st ed.). Tarcher.

Hayashi, A. (2018). *Social Presencing Theater in education.* Presencing Institute. https://www.presencing.org/news/news/social-presencing-theater-in-education

Hübl, T., & Avritt, J. (2020). *Healing collective trauma: A process for integrating our intergenerational and cultural wounds.* Sounds True.

Inner Development Goals. (n.d.). *Framework.* https://innerdevelopmentgoals.org/guide/

Jakubik, M., Beke, J., & Shtaltovna, Y. (2023). The role of universities: Enhancing students' capabilities for work and life. In W. Donald (Ed.), *Handbook of research on sustainable career ecosystems for university students and graduates* (pp. 15–37). IGI Global. https://doi.org/10.4018/978-1-6684-7442-6.ch002

Kabat-Zinn, J. (1994). *Wherever you go, there you are.* Hyperion.

Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ, 311*(7000), 299–302. https://doi.org/10.1136/bmj.311.7000.299

Libertson, F. (2023). Inner transitions in higher education in Sweden: Incorporating intra-personal skills in education for sustainable development. *International Journal of Sustainability in Higher Education, 24*(9), 213–230. https://doi.org/10.1108/IJSHE-12-2022-0395

Lindsay, B. L., Bernier, E., Boman, J., & Boyce, M. A. (2022). Understanding the connection between student wellbeing and teaching and learning at a Canadian research university: A qualitative student perspective. *Pedagogy in Health Promotion, 9*(1), 5–16. https://doi.org/10.1177/23733799221089578

Martela, F. (2024). Flourishing as the central aim of education: Steps toward a consensus. *Theory and Research in Education*, *22*(2), 180–188. https://doi.org/10.1177/14778785241258857

Maté, G. (2009). *In the realm of hungry ghosts: Cose encounters with addiction*. Vintage Canada

Nordén, B. (2024). Advancing sustainability through higher education: Student teachers integrate Inner Development Goals (IDG) and future-oriented methodologies. *Challenges, 15*(2), 28. https://doi.org/10.3390/challe15020028

Olson, N., Oberhoffer-Fritz, R., Reiner, B., & Schulz, T. (2025). Stress, student burnout and study engagement—A cross-sectional comparison of university students of different academic subjects. *BMC Psychology, 13*(1), 293. https://doi.org/10.1186/s40359-025-02602-6

Pöllänen, E., Osika, W., Horwitz, E. B., & Wamsler, C. (2023). Education for sustainability: Understanding processes of change across individual, collective, and system levels. *Challenges, 14*(1), 5. https://doi.org/10.3390/challe14010005

Rodriguez Carreon, V., & Vozniak, P. (2021). Embodied experiential learning: Cultivating inner peace in higher education. *Journal of Awareness-Based Systems Change, 1*(2), 31–50. https://doi.org/10.47061/jabsc.v1i2.1179

Romanowska, J., Larsson, G., & Theorell, T. (2014). An art-based leadership intervention for enhancement of self-awareness, humility, and leader performance. *Journal of Personnel Psychology, 13*(2), 97–106. https://doi.org/10.1027/1866-5888/a000108

Rosa, H. (2019). *Resonance: A sociology of our relationship to the world.* Polity Press.

Scharmer, O. C. (2018). *The essentials of Theory U: Core principles and applications.* Berrett-Koehler Publishers. https://medium.com/presencing-institute-blog/vertical-literacy-12-principles-for-reinventing-the-21st-century-university-39c2948192ee

Scharmer, O. C. (2019, May 20). Vertical literacy: Reimagining the 21st-century university. *Medium.*

Siegel, D. J. (2012). *The developing mind: How relationships and the brain interact to shape who we are* (2nd ed.). The Guilford Press.

Throop, W. M. (2024). *Flourishing in the age of climate change.* Comstock Publishing Associates.

Walsh, Z., Böhme, J., & Wamsler, C. (2021). Towards a relational paradigm in sustainability research, practice, and education. *Ambio, 50*(1), 74–84. https://link.springer.com/article/10.1007/s13280-020-01322-y

Weber, K. M., Douglas, N. F., Popp, T., & Nelson, R. K. (2024). Why we need trauma-informed campuses now more than ever. *About Campus, 29*(1), 29–38. https://journals.sagepub.com/doi/10.1177/10864822231223445

Wheatley, M. J. (2017). *Who do we choose to be? Facing reality, claiming leadership, restoring sanity.* Berrett-Koehler Publishers.

Woiwode, C., Schäpke, N., Bina, O., Veciana, S., Kunze, I., & Parodi, O. (2021). Inner transformation to sustainability as a deep leverage point: Fostering new avenues for change through dialogue and reflection. *Sustainability Science, 16*(3), 841–858. https://doi.org/10.1007/s11625-020-00882-y

Wood, P. (2024). The Inner Development Goals: Changing educational systems to meet the challenge of human-generated global crises. In I. Kushnir, K. Sood, M. S.-A. Park, H. Zhong, & N. Serret (Eds.), *Education and sustainable development in the context of crises: International case studies of transformational change* (pp. 125–139). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83797-773-420241008

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The author received financial support from the New Frontiers in Research Fund provided by the Social Sciences and Humanities Research council. The research fund covers a larger research project of 2 years, for the value of 102, 587 CAD.

### Data Availability

Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Biana Briciu who can be contacted by email via bbriciu@ustpaul.ca

https://doi.org/10.56611/idg.casebook.001.9

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

## Inner Development Goals: Experience in Leadership Training in Higher Education

**Danny Freira**

Universidad de la República de Uruguay
ORCID: 0000-0001-5921-3623

**Andrea Fernández**

Universidad de Buenos Aires
ORCID: 0009-0004-3204-2712

**Abstract**

This chapter summarizes the effects of working with the dimensions of the Inner Development Goals (IDGs) and their intervention tools among technical, administrative, and service (TAS) staff members who mostly hold positions of responsibility at Universidad de la República (UdelaR), de Uruguay – University of Uruguay. The instrument implemented was a workshop-format course offered by the authors through the Continuing Education Program of the School of Government (EDG) of this higher education institution (HEI). Over a two-month period, eight participants—six leaders and two students deprived of liberty—took part in eight virtual sessions of ninety minutes each, aimed at exploring the five dimensions of the IDGs. The six staff members in leadership positions confirmed the need to strengthen their inner capacities to better support their work teams. Although the sample size was small and the results cannot be generalized, participants in leadership roles agreed on the importance of acquiring tools that would enable them to empower their teams, manage conflicts, and improve the work climate. Participants reported feeling better prepared and equipped with more practical tools to design interventions aimed at enhancing interpersonal relationships and fostering collaborative work. Among the most significant outcomes, they highlighted that the continuous implementation of workshops on the IDGs and their toolbox strengthened the understanding and internalization of key leadership competencies within the HEI. Moreover, active participation and the exchange of experiences were identified as fundamental elements for acquiring practical tools, which directly contributed to improved team management and workplace climate.

***Keywords/key phrases*:** leadership, capacity development, Inner Development Goals/Guide, higher education

https://doi.org/10.56611/idg.casebook.001.9

## 1. Introduction

Organizations and their members are immersed in VUCA environments (volatile, uncertain, complex, and ambiguous), in which the common denominator is disconnection (Scharmer, 2025). The rise of the digital world has amplified each of the VUCA dimensions, making changes faster, more unpredictable, and increasingly difficult to manage (Schwab, 2017; Hinterhuber et al., 2021). This scenario calls for comprehensive approaches that cultivate the collective intelligence of the actors and sectors involved, with the aim of generating inclusive, creative, collaborative, and evolutionary responses.

Educational settings are not exempt from this reality. They face unprecedented challenges that demand a profound transformation of management models, learning environments, and pedagogical practices (Albers et al., 2023). The acceleration of change, the unpredictability of events, the multiplicity of interrelated factors, and the lack of unequivocal responses compel educational institutions to move away from rigid and hierarchical models toward more flexible, collaborative, and adaptive approaches (Ellyat, 2022). Within this framework, the development of transversal competencies such as creativity, collaboration, critical thinking, and courage becomes a priority, as these foster autonomy and self-management within work teams. Internally, this requires the ability to navigate complexity, remain open to continuous learning, deeply value others, and regulate and manage the self, among other capacities (Ayers et al., 2022).

Moreover, it is essential to foster spaces for reflection and action, where research practice and the integration of diverse perspectives enable a deeper engagement with the complexity of contemporary challenges. In this sense, management in VUCA contexts not only responds to the need for constant adaptation but also drives innovation and the development of individuals capable of leading in uncertain and dynamic environments (Diefenbach & Deelman, 2016).

How can we overcome traditional paradigms when addressing structural problems? Scharmer (2025) refers to the *triple divide*—individual, social, and environmental—to describe the state in which we are collectively immersed. As a society, we are producing results that no one individually desires. Those who lead organizations must constantly contend with the conditions generated by this disconnection: a rapid increase in mental health issues, absenteeism, and a lack of spaces for deep listening and reflection.

This global scenario is even more critical within Latin American universities. Public universities face the urgent need for a profound reform that enables them to overcome their current global lag and to assume a leading role in the education of critical citizens, capable of analyzing and understanding the complex flow of information in contemporary reality (Altbach & Salmi, 2024). However, they often operate with diminished teams facing high workloads and low levels of remuneration (García & Adrogué, 2021). In addition, there is a general lack of training in soft skills—both intra- and interpersonal—which are essential for improving collaboration and achieving effective management within academic environments. In this context, prioritizing the development of such competencies becomes a fundamental pillar of educational transformation.

The higher education institution (HEI) referenced here, like many of its regional counterparts, has doubled its student population to date (163,288; DGPlan, 2024) without a proportional increase in staff numbers. This situation has led to a context of massification, disciplinary

diversification, and an expansion of evaluation and control modalities, exposing administrative personnel to high levels of stress and burnout. Their leaders have expressed the need to create training spaces that strengthen their competencies for managing teams under adverse working conditions (Tabarez-Díaz et al., 2021).

Programs focused on inner development have demonstrated positive impacts on participants' ability to creatively challenge unsustainable ways of working. Moreover, within the field of sustainability leadership education, both personal and collective connection are regarded as fundamental for addressing current societal crises (Wamsler et al., 2023), as deep personal transformation requires the cultivation of socio-emotional skills and self-management (Tenschert et al., 2024).

This paper contributes evidence in this regard. The Inner Development Goals (IDGs) training course was offered to stakeholders: technical, administrative, and service (TAS) staff at the University of the Republic (Udelar). It was attended primarily by individuals in positions of responsibility (Heads and Division Directors), confirming leaders' need to strengthen their inner capacities in order to create and sustain work environments characterized by positive organizational climate, mutual respect, and the conditions necessary for innovation and continuous improvement to unfold.

## 2. Theoretical Framework

The present theoretical framework focuses on the importance of leaders developing and strengthening their competencies to create and sustain work environments characterized by a positive organizational climate. Practices that contribute to fostering such a climate promote innovation and continuous improvement (Barbeito & Bianchi, 2016), both of which are essential for organizational well-being and the achievement of collective goals.

This study seeks to demonstrate that IDG-based training for leaders within the HEI can strengthen their competencies to create and sustain work environments with a positive climate. It is proposed that these practices influence the development of a favourable work atmosphere and, consequently, organizational well-being—key elements for achieving collective objectives.

Recent scientific evidence shows that human beings possess an innate ability to connect with one another; however, this potential requires the provision of dedicated spaces and time within the workday to be realized (Lieberman, 2013). Research on the effects of mindfulness within organizations points in the same direction, emphasizing that inner transformation and intrapersonal capacities are necessary to meet the challenges of complex contexts.

The literature highlights self-awareness, alignment with personal values, and connection with others and with nature as profound leverage points for transforming collective ways of working (Woiwode et al., 2021). It further underlines the need to address the ontological, epistemological, and practical dimensions of inner and outer transformation to empower individuals to question unsustainable social paradigms (Wamsler et al., 2023).

In this context, the IDGs represent a key framework, as they constitute an integrative model of soft skills that identifies and promotes the inner abilities and qualities essential for improving the quality of life in relation to others and to the planet (Shtaltovna et al., 2024). Developed, promoted, and disseminated as a non-profit and open-source initiative by diverse public,

private, and civil society organizations, the IDG framework provides clear methodologies for enhancing the adoption and practice of soft skills. Inner development is thus fundamental for achieving external sustainability, particularly in contexts where institutional cultures hinder the application of learning at collective and systemic levels.

The aforementioned framework is structured around five key dimensions—Being, Thinking, Relating, Collaborating, and Acting—each encompassing various aspects of personal and professional growth. Its design was informed by global studies and surveys that have identified specific intrapersonal capacities relevant to sustainability work, including the ability to manage complexity and foster a learning mindset (Jordan, 2021; Ayers et al., 2023). The framework emphasizes the importance of promoting interconnectedness and the self-observation of emotions, thoughts, and beliefs as part of the process of transforming oneself and, consequently, the surrounding context (Ives et al., 2020; Walsh et al., 2021).

These are key intrapersonal attributes for leaders who act as agents of change in their daily work, as they facilitate the effective implementation of sustainable initiatives despite ongoing challenges (Ayers et al., 2023). This perspective highlights that individual values, beliefs, and attitudes are not merely secondary factors but are, in fact, fundamental drivers of both personal and systemic transformation in complex contexts.

The intrapersonal approach is further supported by research indicating that the identification and cultivation of inner qualities—such as the capacity to navigate complexity and sustain a learning mindset—are essential for individuals engaged in sustainability-related work (Ayers et al., 2023). This paradigm calls for explicit consideration of both internal and external transformation processes, which require working with conscious interrelation and intrarelation through introspection and reflexivity (Böhme et al., 2024).

Based on these foundations, the present study explores the effects of participating in an IDG training course offered to six organizational leaders of the Uruguayan HEI. This course drew on a diverse body of knowledge developed worldwide, offering an educational experience designed to support leaders in addressing contemporary challenges.

## 3. Methodology

The present study adopts a qualitative approach, aiming to gain an in-depth understanding of participants' perspectives without seeking to generalize the findings to broader populations. This methodological design allows for a detailed investigation of complex phenomena, prioritizing interpretive richness over the quantification of variables (Fasio, 2002).

The study is cross-sectional and exploratory, as it seeks to investigate a problem that has been little addressed in the local context while simultaneously describing its characteristics in detail.

A case study design is employed, focusing on the design and implementation of a workshop conducted for students, faculty, and TAS staff at the University of the Republic (UdelaR). This approach allows for an in-depth analysis of the experience within the context in which it occurred. As described in the case presentation, the study focuses specifically on participants with leadership responsibilities. Two students deprived of liberty, who had enrolled in the open-format course available to students, faculty, and TAS staff, are excluded from this analysis. The exclusion is justified by the fact that these students could only attend the last half-hour of the course due to prison restrictions and because the study aims to focus on organizational leaders.

Grounded theory was chosen as the methodological framework due to its emphasis on the inductive construction of knowledge, which allows for a deep understanding of participants' experiences and the effects of the course based on emergent data. Unlike phenomenology, which seeks to explore the essence of a lived experience, or action research, which aims to transform practice through collective intervention, grounded theory is more suitable here because its objective is to generate theory or concepts that explain how participants perceive and interpret the impact of the course on their competencies and organizational practices. Open coding was applied to the materials produced. According to Charmaz (2014), initial coding enables the extraction of data that facilitates analysis. The results presented are based on submitted work, transcriptions of the sessions, and observations made by the teaching team throughout the course.

## 4. Case: Inner Development Goals Course at UdelaR

*Recruitment and Participation:* The training program was delivered in May 2025 through the Continuing Education courses of the School of Government (EDG) at UdelaR, in a virtual and synchronous format. The EDG annually conducts closed calls for the entire university population (189,000 individuals, including students, faculty, and TAS staff). The authors made a proposal that was peer-reviewed and approved for the first cohort. Then we designed and delivered the course. Eight participants enrolled, including two students deprived of liberty. This study focuses on the experiences of the six participants holding supervisory positions within the organization. The sample consisted of five women and one man, aged between 30 and 60 years, with two residing outside the capital and four living in Montevideo.

*Curricular design*: The course consisted of weekly 90-minute sessions over four weeks, complemented by a final evaluation session delivered in a hybrid format. The curriculum was designed to include activities centered on experiential learning, the use of methodological tools associated with the IDG dimensions, guided personal reflection (journaling), small-group work, and the exploration of concrete cases contributed by the participants themselves.

The dynamics employed included techniques derived from Theory U, deep listening exercises, perspective-taking activities, relational archetypes, Non-Violent Communication and creative proposals aimed at fostering collaboration and action. These global practices were contextualized, and, choosing for each dimension the competence or ability more significant for the UdelaR participants. E.g. in the *being dimension*, they worked on Openness and Learning Mindset using the U Theory four levels of listening. In the *relating dimension,* they worked on relatedness, empathy and compassion using the relational archetypes.

Multimedia resources in both Spanish and English were used, and asynchronous forums were offered as spaces to deepen personal and organizational reflection. Additionally, apart from the authors, another teacher facilitated meditation at the beginning and at the end, focusing on body grounding and synchronicity connected to nature. Furthermore, scribing was utilized during the presentation of final cases. The flexible design of the course allowed adjustments based on participant numbers and connection conditions.

*Evaluation:* The proposed evaluation required participants to select an intervention within their sphere of possible action, using the tools provided in the course through practice or the suggested materials. This open-ended approach allowed for a high degree of flexibility and

enabled participants to design intervention proposals in their workplaces that were meaningful for their professional activities. The group reflections, completed assignments, and scribing records from the evaluation session constitute the primary material that served as the basis for the analysis presented below.

## 5. Results

The analysis was initially aimed at identifying the inner development competency needs of those working at UdelaR, a large-scale university facing high demands due to massification, recent decentralization, and disciplinary diversity. The next objective was to understand how participants experienced the designed teaching–learning process and to collect data that could inform improvements to the approved training program. Finally, the study sought to gather narratives that could be shared among communities promoting the Sustainable Development Goals (SDGs). Achieving external sustainability is closely linked to individuals and collectives who believe in their potential to act and alter behaviors to make the planet habitable for future generations.

The depth of participants' reflections on their challenges as leaders in an organization that does not formally address intra- and interpersonal competency development was particularly revealing. Of special interest is understanding how, during the process, participants were able to integrate cognitive knowledge with introspection, creativity, and spirituality within a virtual format.

The following paragraphs describe the changes reported by participants in their final reports related to self-awareness, including both their self-understanding and their interpersonal relationships, as well as their modes of collaboration toward organizational sustainability. The course expanded the range of possible actions for addressing the various challenges raised. The findings are presented according to the IDG dimensions most frequently mentioned by the participants.

**Being:**

Regarding intrapersonal capacities such as self-awareness, internal compass, and emotion regulation to face challenges in the work environment, participants agreed that these skills are essential for effective team leadership. Stress and burnout management were also highlighted, suggesting that inner development contributes to the prevention of these issues and to the enhancement of overall well-being in the workplace.

> *This course has made me realize the importance of self-critique and of knowing my own being as a dimension. In some cases, this is particularly important for a collective in which many are observing. The responsibility and challenges we face daily in large institutions, especially when holding leadership positions, are immense.* (Participant 1)

**Collaborating:**

Four assignments highlighted the need to improve communication as a fundamental skill for teamwork and organizational development. Effective and nonviolent communication was seen as key to growth and development in complex work environments.

In this dimension, one participant chose a self-dialogue format:

> *What could we improve to make collaborative work even more creative and constructive?* And the answered he provided: *(co-creation skills)* (Participant 2)

**Relating**:

This dimension is frequent in the testimonies, emphasizing the importance of caring for others and fostering healthy interpersonal relationships to create a positive work climate. Empathy and compassion were highlighted as fundamental tools for eliminating microaggressions in the workplace.

Other skills and behaviours were also emphasized:

> *Strengthen and encourage recognition and gratitude for the work and dedication of other group members. Appreciation is essential for reinforcing group cohesion. Recognizing and valuing each member's contributions motivates and ensures active participation. Demonstrating appreciation fosters a positive environment where individuals feel valued and respected, increasing commitment and sense of belonging.* (Participant 3)

**Thinking:**

The most frequently mentioned cognitive skills were those that contribute to better relationships: critical thinking, perspective-taking, sense-making, guidance and long-term vision, and awareness of complexity. These capacities enable individuals to consider different points of view, evaluate information, and understand the world as an interconnected system, thereby facilitating sound decision-making.

In this regard, one participant summarized how they began to change the work environment:

> *We created opportunities for discussion, and in the end, we reached agreement. Even if they are not fully convinced, they know it is something they must do.* (Participant 1)

**Action**

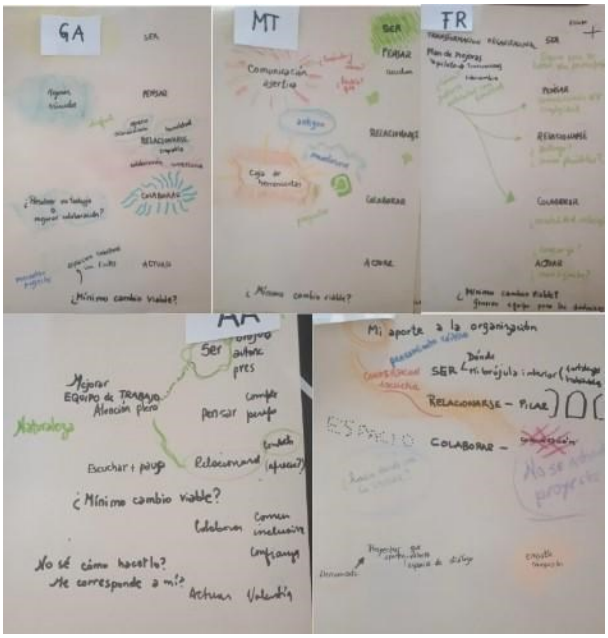
Driving change: courage, creativity, optimism, perseverance. This dimension was not as frequently selected as a change enabler. It was mentioned primarily from a spiritual perspective:

> *Every human being has the possibility to improve. From this standpoint, having optimism to drive change, acting accordingly, and aligning oneself to promote the avoidance of microaggressions in the workplace is a challenge, but setting a medium-term goal would be the most appropriate and conducive way to generate change.* (Participant 4)

The conclusion of one participant summarizes their experience during the training:

> *Assuming transformation as a continuous and conscious process, with clear guidance and active leadership, while seeking to involve people in change management. In this sense, I understand that the Inner Development Goals provide substantial elements; they help us reflect and, above all, to conceptualize and plan approaches more clearly and also to facilitate their implementation.* (Participant 2)

FIGURE 1. NOTETAKING OF THE EVALUATION




Source: Fernandez, Andrea: evaluation note taking, 2025

Regarding the use of the Toolbox for designing projects as a minimum viable change, substantial differences were observed among participants, with the differentiating factor being the highest level of education attained. Those with professional training demonstrated a greater degree of integration of the tools into their transformation projects. Additionally, they showed a clearer design regarding the role they were to assume. Despite these varying levels of integration, with the exception of one of the eight students who took the course, all participants were able to design an intervention project within their sphere of action. Leaders in higher hierarchical positions displayed greater concern for the long-term sustainability of the organization compared to those holding responsibility positions with lower hierarchy.

Finally, as reflected in the following opinion, there was consensus that the Toolbox is clear and provides alternatives previously unknown to participants for intervening in their organizations:

> *The use of this 'Toolbox' allows connecting theory with practice, promoting deep reflection and genuine self-knowledge. This not only improves communication but also strengthens team effectiveness.* (Participant 5)

## 6. Discussion

This systematization may encourage the replication of the training program designed for the use of the IDGs with leaders and individuals in positions of responsibility. The results are reported because leaders recognized the need to provide evidence that facilitates the expansion of the experience both upward and downward within the organizational hierarchy, and it is considered relevant to share with other stakeholders these effects. However, several limitations of the study are acknowledged. The group size was small, and its process may not reflect the interests or concerns of other employees in similar positions of responsibility. Although

participation in the course was voluntary, it is likely that those who ultimately applied the learnings in workplace projects were motivated by reasons external to the program itself.

Nonetheless, and in agreement with the findings of Woiwode et al. (2012), all assignments submitted by participants reflect a deep understanding of how inner development and intrapersonal capacities are important for addressing organizational challenges. Participants concurred that improving communication, managing stress, and fostering interpersonal relationships are essential for creating a positive and sustainable work environment.

Although further iterations are needed, this study demonstrates that the Relating and Collaborating dimensions play a key role in organizational change toward sustainability. Leaders expressed the need for training spaces with guided interaction, such as those experienced in this course, to strengthen their soft skills and team management competencies—an essential need in contexts of high demand and limited remuneration.

Mindfulness was also mentioned as a tool for creating intra- and interpersonal connection spaces necessary to cultivate a healthier and more productive work environment. While consistent with Rooney et al. (2019) in recognizing that programs developing mindfulness provide leaders with accessible wisdom to empower their management, cultural restrictions in Latin America still significantly limit widespread adoption. This cultural sensitivity must be explicitly considered when designing and implementing meditative practices. Mindfulness, although increasingly applied in diverse work environments, originated as a spiritual practice, and its successful integration often depends on how it is articulated within the overall program, the time allocated, and opportunities for reflection on inner experience. The challenge lies in ensuring that any adaptations preserve the fundamental principles of mindfulness while resonating with the diverse cultural values and organizational dynamics present in each society (Sutton, 2023).

Another methodology that was well received was the framework of conversations promoted by Rosenberg (1999) through Non-Violent Communication (NVC). This is a robust tool for fostering empathy and interpersonal connection, which are crucial elements for inner development (Williams et al., 2021). It facilitates deep transformation by integrating emotional and rational aspects within the communication process. Through simple, structured steps, NVC promotes the expression of observations without judgment, the recognition of feelings and needs, and the formulation of clear requests (Rosenberg, 1999). NVC equips individuals to navigate difficult conversations and build relationships based on mutual respect (Williams et al., 2021). This approach is particularly relevant in academic settings, where the ability to establish empathetic communication can mitigate conflicts and enhance overall well-being. Participants expressed the need to connect with others through a different kind of dialogue—one characterized by deep, assertive, empathetic listening free from judgments or criticism that could harm others—thus fostering healthier and more peaceful relationships.

In addition to the topics mentioned, several challenges arose during the implementation of training programs like the one described. Regarding curricular design, although scheduled times were met, an area for improvement identified was the need to extend session duration, ideally to two hours per session, or to include an additional intensive day for the final project. In practice, resources were provided in both Spanish and English, although the group showed a

clear preference for materials in Spanish. This observation highlights the importance of carefully selecting linguistic and cultural resources according to the group's profile.

Asynchronous forums were also offered as spaces for deepening personal and organizational reflection, though they were not fully utilized in this iteration. Additionally, closing elements such as meditation and body resonance exercises were incorporated and valued by participants as necessary for integrating the learnings. The flexible design of the course allowed for adjustments based on participant numbers and connection conditions.

## 7. Conclusion

This study aimed to analyze the implementation of the Inner Development Goals through a workshop directed at technical, administrative, and service (TAS) staff in leadership roles at the Universidad de la República, a large public university in Uruguay. The training program, delivered virtually and synchronously, sought to strengthen intra- and interpersonal competencies—such as self-awareness, emotional regulation, communication, and stress management—to respond to the complex and rapidly changing challenges of higher education administration in Latin America.

The results indicate that participants recognized the importance of these skills in fulfilling their roles as leaders. Although progress was uneven, they reported concrete improvements in their ability to manage conflicts, promote positive work climates, and support their teams. Changes were also observed in the ways participants connect with others, reflecting greater awareness of others' perspectives.

Factors influencing the speed with which participants assimilated the tools provided include the context in which they perform their work, their educational level, their capacity for self-observation and self-recording, and their ability to link course content to real situations in their personal and professional environments.

The inclusion of patience as a fundamental skill toward oneself and others suggests a potential expansion of the theoretical model. While there is a recognized need to create spaces of this nature and to implement practices that foster healthier relationship management and collaboration, a sense of urgency in other work activities often results in these practices being postponed. It becomes evident that dedicating time to inner development is necessary; yet, contrary to expectations, it is often the first practice to be sacrificed in order to "complete" tasks demanded by the system. The accelerated pace of life leaves little or no time for regular personal internal practice. At present the systemic approaches to organizations - such as example U Theory, mindfulness and Trauma Informed Leadership - are emphasising the need to find spaces where leaders can strengthen their inner conditions.

### Practical Implications

The findings highlight the importance of offering training opportunities focused on inner development for individuals in leadership positions, particularly in contexts of high demand and limited resources, a situation that affects higher education globally (Altbach & Salmi, 2024). The authors shared the design and this first experience in higher education global forums to encourage co-creation of similar experiences. The continuous implementation of workshops

based on the IDGs can enhance team resilience, collaboration, and adaptability, contributing to the reduction of burnout and the improvement of interpersonal relationships.

For institutional leaders and policymakers, investing in such programs may translate into more innovative, healthy, and sustainable organizations. Moreover, the experiential and reflective methodology employed in the workshop can be adapted to other sectors facing VUCA (Volatile, Uncertain, Complex, and Ambiguous) conditions, thereby broadening the social impact of the initiative.

**Reflexivity**

The instructors who designed and evaluated the learning process believe in the transformative value of inner development for organizational change toward sustainability. The interplay between extensive training in organizational transformation, social change, and personal change, along with more recent theoretical frameworks—some still exploratory—facilitates the questioning and revision of our own beliefs. Participants who actively engaged in the workshop drew our attention to the needs of leaders in higher education institutions. This casebook contributes to efforts to develop more ethical and human-centered theoretical frameworks for higher education, a need increasingly recognized in organizational theory given the outcomes produced by traditional forms of training.

## References

Achoki, P. M. (2023). Upskilling and reskilling for a VUCA world: Organizational sense–response framework. *GILE Journal of Skills Development, 3*(2), 34–52. https://doi.org/10.52398/gjsd.2023.v3.i2.pp34-52

Altbach, P., & Salmi, J. (2021). *Why Latin America Needs World-Class Universities.* International Higher Education, (108), 20-21 https://ejournals.bc.edu/index.php/ihe/article/view/14451

Albers, S., Rundshagen, V., Vanderstraeten, J., Raueiser, M., & De Waele, L. (2023). Between Humboldt and Rockefeller: An organization design approach to hybridity in higher education. *Scandinavian Journal of Management, 39*(1), 101260. https://doi.org/10.1016/j.scaman.2023.101260

Arocena, R., & Sutz, J. (2021). El ideal latinoamericano de universidad y la realidad del siglo XXI. *Cuadernos de Universidades*. https://www.udual.org/principal/wp-content/uploads/2021/07/cuadernillo_13_el_ideal.pdf

Ayers, J., Missimer, M. & Bryant, J. Intrapersonal capacities for sustainability: A change agent perspective on the 'inner dimension' of sustainability work. *Sustain Sci* 18, 1181–1197 (2023). https://doi.org/10.1007/s11625-022-01288-8

Barbeito, F., & Bianchi, C. (2016). La organización del trabajo como determinante del comportamiento innovador de las empresas: una aproximación empírica mediante análisis de datos de panel. *Jornadas Académicas de la Facultad de Ciencias Económicas y de Administración.*

Böhme, J., Spreitzer, E.-M., & Wamsler, C. (2024). Conducting sustainability research in the anthropocene: Toward a relational approach. *Sustainability Science, 19,* 1169–1185. https://doi.org/10.1007/s11625-024-01510-9

Diefenbach, S., Deelmann, T. (2016). Organizational Approaches to Answer a VUCA World. In: Mack, O., Khare, A., Krämer, A., Burgartz, T. (eds) Managing in a VUCA World. Springer, Cham. https://doi.org/10.1007/978-3-319-16889-0_13

Dirección General de Planeamiento (DGPlan). (2024). *Síntesis estadística 202*3.

Ellyatt, W. (2022). Education for human flourishing: A new conceptual framework for promoting ecosystemic wellbeing in schools. *Challenges, 13*(2), Article 58. https://doi.org/10.3390/challe13020058

Fassio, A. (2002). *Introducción a la metodología de la investigación aplicada al saber administrativo*. Ediciones Cooperativas.

García de Fanelli, A. M. & Adrogué, C. (2021). Docentes universitarios en la Argentina: Factores asociados y satisfacción con la posición en la estructura ocupacional. *Revista de Educación, 24*(2), 203–226. https://fh.mdp.edu.ar/revistas/index.php/r_educ/article/view/5548

Goñi Mazzitelli, M., Vienni Baptista, B., & Hidalgo, C. (2023). Prácticas interdisciplinarias y transdisciplinarias en Iberoamérica: Integración de conocimientos y diálogo con políticas de ciencia, tecnología e innovación. *Revista Iberoamericana de Ciencia, Tecnología y Sociedad, 18*(53), 77–85. https://doi.org/10.52712/issn.1850-0013-432

Hinterhuber, A., Vescovi, T., y Checchinato, F. (Eds.). (2021). *Managing digital transformation: Understanding the strategic process*. Routledge.

Ives, C.D., Freeth, R. & Fischer, J. Inside-out sustainability: The neglect of inner worlds. *Ambio* 49, 208–217 (2020). https://doi.org/10.1007/s13280-019-01187-w

Jordan, T. (2021). *Inner development goals: Background, method and the IDG framework*. Inner Development Goals. https://drive.google.com/file/d/13fcf9xmYrX9wrsh3PC3aeRDs0rWsWCpA/edit

Lieberman, M. D. (2013). *Social: Why Our Brains Are Wired to Connect.* Crown Publishing Group. https://books.google.com.uy/books?id=KsHCngEACAAJ

Rooney, D., Küpers, W., Pauleen, D., & Zhuravleva, E. (2021). A developmental model for educating wise leaders: The role of mindfulness and habitus in creating time for embodying wisdom. *Journal of Business Ethics, 170*(1), 181–194. https://doi.org/10.1007/s10551-019-04335-0

Scharmer, C. O., & Kaufer, K. (2025). *Presencing: 7 practices for transforming self, society, and business*. Berrett-Koehler Publishers.

Schwab, K. (2016). *La cuarta revolución industrial*. Penguin Random House Grupo. Editorial España.

Shtaltovna, Y., Rodriguez Carreon, V., Lindencrona, F., & Donald, W. E. (2024). Cognitive skills within the Inner Development Goals (IDG) framework: Empowering sustainable careers and sustainable development. *GILE Journal of Skills Development, 4*(1), 74–94. https://doi.org/10.52398/gjsd.2024.v4.i1.pp74-94

Soto, J. C. V., Graf, N. B., & Bravo, H. G. (2013). Profile of multidisciplinary groups and collaborative styles in interdisciplinary research. *Procedia - Social and Behavioral Sciences, 106*, 2144–2153. https://doi.org/10.1016/j.sbspro.2013.12.245

Sutton, A. Cultivating Global Health: Exploring Mindfulness Through an Organisational Psychology Lens. *Mindfulness* 16, 702–711 (2025). https://doi.org/10.1007/s12671-023-02228-y

Tabares-Díaz, Y. A., Martínez-Daza, V. A., & Matabanchoy-Tulcán, S. M. (2020). Síndrome de burnout en docentes de Latinoamérica: Una revisión sistemática. *Universidad y Salud, 22*(3), 265–279. https://doi.org/10.22267/rus.202203.199

Tenschert, J., Furtner, M. & Peters, M. The effects of self-leadership and mindfulness training on leadership development: a systematic review. *Manag Rev Q* 75, 2811–2862 (2025). https://doi.org/10.1007/s11301-024-00448-7

Vasen, F., & Vienni, B. (2017). La institucionalización de la interdisciplina en la universidad latinoamericana: Experiencias y lecciones de Uruguay y Argentina. *Avaliação: Revista da Avaliação da Educação Superior (Campinas), 22*, 544–565. https://doi.org/10.1590/S1414-40772017000200016

Villa Sánchez, A. (2020). Liderazgo resiliente pertinente para una sociedad cambiante. *Foro Educacional, 34*, 77–103. https://dialnet.unirioja.es/servlet/articulo?codigo=7517000

Walsh, Z., Böhme, J. & Wamsler, C. Towards a relational paradigm in sustainability research, practice, and education. *Ambio* 50, 74–84 (2021). https://doi.org/10.1007/s13280-020-01322-y

Wamsler, C., Osberg, G., Janss, J. *et al.* Revolutionising sustainability leadership and education: addressing the human dimension to support flourishing, culture and system transformation. *Climatic Change* 177, 4 (2024). https://doi.org/10.1007/s10584-023-03636-8

Williams, B., Simmons, B. A., Ward, M., Beher, J., Dean, A. J., Nou, T., Kenyon, T. M., Davey, M., Melton, C. B., Stewart-Sinclair, P. J., Hammond, N. L., Massingham, E., & Klein, C. J. (2021). The potential for applying "nonviolent communication" in conservation science. *Conservation Science and Practice, 3*(11). https://doi.org/10.1111/csp2.540

Woiwode, C., Schäpke, N., Bina, O. *et al.* Inner transformation to sustainability as a deep leverage point: fostering new avenues for change through dialogue and reflection. *Sustain Sci* 16, 841–858 (2021). https://doi.org/10.1007/s11625-020-00882-y

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

### Funding

The author received no financial support for this article's research, authorship, and/or publication.

### Data Availability

Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

https://doi.org/10.56611/idg.casebook.001.9

## Open Access Agreement



## Corresponding Author

The corresponding authors for this manuscript are Danny Freira and Andrea C. Fernández, who can be contacted by email via danny.freira@fcea.edu.uy and acfernandez@derecho.uba.ar, respectively.

https://doi.org/10.56611/idg.casebook.001.10

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

## The IMPACT Project: A Case Study of a Potentially Replicable and IDG-Aligned Education for Sustainable Development Initiative

**Mia Wilson**

University of Glasgow, Scotland
ORCID: 0000-0002-2155-8658

**Ailsa Foley**

University of Glasgow, Scotland
ORCID: 0009-0005-8413-9820

**Laura Sharp**

University of Glasgow, Scotland
ORCID: 0000-0003-4496-6141

**Abstract**

Progress towards the Sustainable Development Goals (SDGs) is inadequate. Greater attention to the inner skills and qualities needed to achieve the SDGs is necessary. The Inner Development Goals (IDGs) outline 23 skills and qualities to focus on. Education for Sustainable Development (ESD) initiatives in higher education are key to honing them but are often under-described, lack generalisability, and/or are under-theorised. This case study aimed to comprehensively report the context, background, development, implementation, and exploratory qualitative analysis of the pilot IMPACT (Inspiring Movements for Progressive Action and Change Together) Project for ESD practitioners to assess its replicability and value. The IMPACT Project is a one-day workshop supporting students to create change campaigns targeting field- and SDG-related issues. The case study further aimed to outline its pedagogical foundations, retrospectively map the IDGs to its activities, and retrospectively explore the qualitative data from the three pilot participants in relation to the Inner Development Goal (IDG) mappings and ESD literature. The purpose was to generate hypotheses for future research about whether and how the workshop might promote the IDGs. Two coders subjectively compared the workshop activities against the IDG definitions. All IDGs were associated with at least one activity. The same coders retrospectively explored the students' feedback for potential IDG connections. When considered next to the IDG mappings and ESD literature, preliminary observations indicated plausibility that at least 15 IDGs may have the potential to be developed through the workshop. However, given our retrospective approaches, all

preliminary observations and IDG mappings must be robustly assessed in future research, ideally in diverse educational and disciplinary contexts to determine the transferability of the workshop. Senior management in universities should make resources available for this to advance progress towards the IDGs and SDGs.

***Keywords/key phrases*:** Inner Development Goals (IDG/IDGs), Sustainable Development Goals (SDGs), Education for Sustainable Development (ESD), Experiential Learning Theory, Transformative Learning Theory, Constructivism

## 1. Introduction

In 2015, United Nations (UN) Member States adopted 17 Sustainable Development Goals (SDGs), with 169 targets. The SDGs aim to address social, environmental, and economic issues by 2030 to ensure long-term peace and prosperity (UN, n.d.-b). Yet, the UN's (2024) report indicated sufficient progress towards just 17% of the targets. Approximately 50% have modestly improved, and advancement has stalled or reversed for the remainder.

Efforts to achieve the SDGs have focused on political and socioeconomic structural reforms. Ives et al. (2020) argued these alone are insufficient, with individuals' inner worlds playing a crucial but overlooked role in shaping sustainable futures. The Inner Development Goals (IDGs) project emerged in 2020 to foster the skills and qualities people need to realise envisioned change. With input from over 861 sustainability professionals and adult development and leadership researchers, a framework outlining 23 skills and qualities, across five categories, was developed (Jordan et al., 2021). Table 1 illustrates these 23 IDGs, and full definitions are available in Jordan et al. (2021, pp.13-24). Please note, throughout, we use IDGs to refer to multiple Inner Development Goals, and 'IDG' when referring to an individual Inner Development Goal (IDG) (e.g. complexity awareness, empathy & compassion) or when the term functions adjectivally (e.g. 'IDG-aligned', 'IDG Framework')

TABLE 1. IDG FRAMEWORK

| Being | Thinking | Relating | Collaborating | Acting |
|---|---|---|---|---|
| Inner Compass | Critical Thinking | Appreciation | Communication Skills | Courage |
| Integrity & Authenticity | Complexity Awareness | Connectedness | Co-Creation Skills | Creativity |
| Openness & Learning Mindset | Perspective Skills | Humility | Inclusive Mindset & Intercultural Competence | Optimism |
| Self-Awareness | Sense-Making | Empathy & Compassion | Trust | Perseverance |
| Presence | Long-Term Orientation & Visioning | | Mobilisation Skills | |

Source: Based on Jordan et al. (2021, p.12).

### 1.1. Education for Sustainable Development (ESD)

Sustainable Development Goal (SDG) target 4.7 emphasises ESD (UN, n.d.-a), defined by UNESCO (2025, n.p.) as 'a holistic approach to education that empowers learners of all ages with the knowledge, skills, values and agency to make informed decisions and act responsibly to protect the environment, promote just and equal economic development and societies.' In a view appearing to align with this definition, Wood (2024) argues the IDGs should be central to education, asserting that educational settings provide ideal circumstances for students to develop the IDGs in relation to the SDGs.

Past reviews elucidated five main ways higher education institutions (HEIs) integrate ESD (Mburayi & Wall, 2018; Mokski et al., 2023; Tijsma et al., 2023; Weiss et al., 2021; Weiss & Barth, 2019), shown in Table 2.

TABLE 2. ESD INTEGRATION IN HEIS

| Approach | Description |
|---|---|
| 1. Extracurricular | Standalone sustainability-related courses not linked to any degree programme. Students from diverse fields participate, but the course is not discipline specific. These courses are usually non-credit-bearing. |
| 2. Incorporated into existing curricula | Individual teaching staff explore sustainability in relation to topics in a degree programme module, which could be elective. Students gain credit for the module, but the extent of sustainability inclusion varies, as this is not the focus. |
| 3. Dedicated, discipline-specific curricula | Courses or sessions within a degree programme that specifically focus on sustainability in relation to the field. May be credit-bearing and/or elective. |
| 4. Designed into existing disciplinary core curricula | Teaching teams embed sustainability into the structure and learning outcomes of all core modules of a degree programme, rather than limiting it to isolated topics. All students are exposed and receive credit. |
| 5. Cross-disciplinary curricula incorporated into degree programmes | Credit-bearing courses that integrate multidisciplinary knowledge and unite students from various degree programmes to co-create solutions to real-world sustainability challenges. |

Source: Based on Vogel et al. (2023, p.27).

Vogel et al.'s (2023) systematic review of ESD in HEIs considers these approaches a continuum, with one being the most straightforward and inexpensive but least effective and four and five representing the most effortful and costly but effective options. However, the 115 empirical publications they reviewed frequently provided insufficient contextual information to precisely determine the approach used. Irrespective, they argued case study findings often cannot be generalised because students' existing knowledge, learning preferences, and expectations, which vary across educational and disciplinary contexts, influence them. We

agree but believe constructing replicable ESD initiatives to test across settings is possible. The pilot ESD intervention we report may be an example.

Vogel et al. (2023) also found that many case studies inadequately explained the pedagogical underpinnings of their teaching practices. This hinders understanding about how the techniques used might promote the IDGs.

### 1.2. Purpose and Aims

Thus, the purpose and aims of this case study are two-fold:

1. To enable ESD practitioners to assess if/how our pilot initiative can be reproduced/adapted in other settings, and the potential value of doing so, we aim to comprehensively report its context, including background, development, implementation, and exploratory qualitative analysis.
2. To provide hypotheses for future research about whether and how our initiative may help students develop IDGs, we aim to 1) describe its underpinning pedagogy, 2) retrospectively and subjectively map its learning activities to the IDGs, and 3) retrospectively explore student feedback in relation to these tentative mappings and the ESD literature.

## 2. Context

The IMPACT (Inspiring Movements for Progressive Action and Change Together) Project is a one-day workshop launched by teaching team members of the Global Mental Health (GMH) Master of Science (MSc) Programme in the School of Health and Wellbeing (SHW) in the College of Medical, Veterinary, and Life Sciences (MVLS) at the University of Glasgow (UoG). The workshop supports students to create a change campaign targeting a field- and SDG-related issue of their choice. As a new, voluntary, sustainability-focused learning session attached to a specific degree programme, it is most consistent with Approach Three in Table 2.

The IMPACT Project has always aligned with the ESD definition, but the original terminology used to describe it reflected the UoG's (2021) Learning and Teaching Strategy, which differs slightly. The authors learned about the IDGs after the pilot. Therefore, the workshop activities and pilot analysis questions were not explicitly informed by them; the mapping and student feedback exploration was retrospective.

### 2.1. Background

In March 2024, the Director-General of the World Health Organization (WHO) was awarded an honorary doctorate by the UoG. While visiting, he encouraged SHW students to participate in a social media campaign concerning negotiations for the Pandemic Agreement, adopted in May 2025 (WHO, 2025). After supporting this, the facilitator identified by the initials MW proposed to the GMH team that change campaigning opportunities be embedded in the curricula. Student feedback was solicited via the 23-24 GMH programme evaluation in May 2024. Change campaigning activities (e.g. social media campaigning, petitioning, organising awareness-raising events, writing to people with influence, etc) were listed and students rated their agreement with the following statements:

1. Universities should support students to engage in the activities listed during and as part of their studies (i.e. not just as an extracurricular activity or in post-graduation careers).
2. I would value more support to engage in the activities listed during and as part of the GMH Programme.

Of the ten responses received, 90% (n=9) strongly agreed or agreed with both. The remaining student neither agreed nor disagreed. A lack of activity-related knowledge, skills, and/or confidence emerged as the top barrier to campaigning, with qualitative insights revealing:

> *the course is fabulous in sharing the What (is the challenge) and the Why it exists (biopsychosocial challenges). what the course does not do, is offer guidance as to How students can drive change.*

After analysing this feedback, the team decided to schedule a pilot IMPACT workshop for June 2024.

## 2.2. Workshop Development Process

### *2.2.1. Stakeholder Consultation*

Advance HE and the Quality Assurance Agency (QAA; 2021) recommend consulting diverse stakeholders, including students and alumni, to ensure initiatives align with wants and needs. A collaborative student-staff session took place to outline the workshop direction. A GMH alumnus and current postgraduate research student participated and contributed audiovisual material shown during the workshop. A GMH student was invited but unable to attend. However, they provided ideas informally, and audiovisual material they created for the team's decolonisation project (see Sharp et al., 2025) was used. Two lecturers on the UoG Science Communications MSc shared relevant practical skills, including using social media and podcasting, enabling interdisciplinary knowledge exchange, encouraged by Advance HE & QAA (2021).

Beyond this session, colleagues who support student enterprise and the MVLS' Graduate Skills Award, which facilitates and formally recognises students' extracurricular activities, provided pre-existing resources. The facilitators, identified by initials MW, AF, and LS consulted these when developing the workshop.

Advance HE and QAA (2021) highlight the value of community knowledge beyond academia. Gina Martin's (2019) book, 'Be the Change', strongly shaped the workshop content. Gina is a public member who successfully campaigned to make upskirting, the non-consensual taking of photos or videos beneath people's clothing, a sexual offence in England and Wales. Gina was invited to contribute audiovisual resources but declined due to time constraints.

### *2.2.2. Reflexivity & Ethics*

While considerable effort was made to involve students, staff of various backgrounds, and the community given the short development timeframe, a lack of diversity existed otherwise. All authors possess multiple characteristics that largely protect them from social injustice (e.g. White, Scottish- raised and educated, cis-gendered, heterosexual identities). They understood that students participating in the workshop were more diverse. In 23-24, 39 (81.0%) of the 48 on-campus GMH students were international.

The IMPACT Project operates under the SHW's generic ethical approval for the evaluation of Scholarship of Teaching and Learning (SoTL) activities, granted by the MVLS Ethics Committee (Project Number: 200240024). However, the authors recognised factors that may disproportionately impact certain groups. Stress could occur if students with marginalised identities or trauma felt obliged to tackle issues with personal effects, and not all students come from countries with freedom of expression. To ensure the workshop was safe and empowering for everyone, students were not required to publicly share their work and could opt to support other students in campaign design, rather than create their own, although no participant took this approach.

#### *2.2.3. Materials*

The workshop content was prepared and presented with Articulate Rise 360, an e-learning authoring software. Students received access to the materials at the workshop start, with ongoing access afterwards.

Some activities suggested students use Copilot, Microsoft's artificial intelligence (AI) tool, to support idea generation. The UoG and scholars like Kamalov et al. (2023) propose that since AI use will likely become a demanded workplace skill, students should be taught to use it responsibly. Students have free, secure Copilot access via their UoG account.

To minimise costs, existing university resources were leveraged whenever possible. For example, some activity templates were hand drawn, photocopied, and given to workshop attendees on the day; others were created with Microsoft Word or PowerPoint and embedded into the content for download, although paper copies of the Word templates were also available. Additionally, students were presented with pen and paper for some activities, and SDG tile cards for one activity were printed and laminated using UN website icons.

Catering and workshop items, including prizes for one activity, were purchased using a small MVLS' College Equality, Diversity, and Inclusion Committee fund.

Production of the GMH alumnus' and student's audiovisual material was paid for via a separate fund that enables collaboration between the GMH teaching team and an independent videographer to generate films for programme-wide use in which contributors apply real-life experiences to course content.

### 2.3. Implementation

#### *2.3.1. Participants*

All 48 23-24 on-campus GMH students were invited three weeks in advance via Moodle to secure a free ticket through Bookitbee. Students were only offered free lunch and refreshments as incentive. Seven (14.6%) students enrolled; only three (6.3%) attended. Of these three (6.3%) participants, two identified as female (66.7%) and one as male (33.3%). Their nationalities were Indian, Indonesian, and Malaysian.

#### *2.3.2. Procedure*

The one-day workshop occurred on the main campus from 9am to 5pm. The day comprised three main sections, detailed in the first column of Table 3. These were sequenced to scaffold learning (Wood et al., 1976). For example, Section One outlined foundational concepts (e.g.

campaign stages) applied in the second (e.g. during campaign planning), and the outputs of Section Two problem identification and solution design activities were built on in three activities pertaining to campaign communication.

TABLE 3. WORKSHOP SECTIONS, LEARNING METHODS, AND MAPPED IDGS

| Workshop Section | Learning Methods | Mapped IDGs |
|---|---|---|
| **Section 1: Introduction to Change Campaigning**<br>Gina Martin's (2019) three campaign stages (awareness, advocacy, and action) were explained. A game involving matching campaign activities to campaign stages was employed to consolidate understanding.<br><br>The benefits of change campaigning were contextualised with real campaigns. Challenges were discussed, and students created a campaigning self-care plan. | Traditional Lecturing; Gamification; Group Debate; Self-Reflection | Self-Awareness; Presence; Perspective Skills; Sense-Making; Connectedness; Communication Skills; Optimism |
| **Section 2: Planning a Change Campaign**<br>Students discussed ethical considerations regarding choosing a campaign topic, before engaging in practical activities to: 1) select a target issue; 2) enhance understanding of its causes; 3) determine an innovative solution by reflecting on existing campaigns addressing similar topics; and 4) plan change-campaigning activities needed to apply the solution. | Peer Learning; Group Discussion; Reflection; PBL; PjBL; Gamification; Group Debate | Inner Compass; Integrity & Authenticity; Self-Awareness; Critical Thinking; Complexity Awareness; Long-Term Orientation & Visioning; Humility; Inclusive Mindset & Intercultural Competence; Trust; Creativity |
| **Section 3: Implementing a Change Campaign**<br>Students were supported to use social media as the first step in campaign implementation. Activities included developing branding materials and effective messaging, preparing for resistance through role-playing, and creating an initial social media post. | Gamification; PjBL; Group Discussion; Peer Learning; Group Debate; Role Play; Traditional Lecturing; Self-Reflection; Peer Interaction | Inner Compass; Integrity & Authenticity; Openness & Learning Mindset; Perspective Skills; Appreciation; Empathy & Compassion; Communication Skills; Co-Creation Skills; Inclusive Mindset & Intercultural Competence; Mobilisation Skills; Courage; Perseverance |

Source: Own compilation.

The first column in the Appendix A table chronologically details the activities in each section, alongside their scheduled durations. An asterisk indicates that activity materials or outcomes are depicted in Figure 1, a montage of the IMPACT resources in use.

https://doi.org/10.56611/idg.casebook.001.10

FIGURE 1. MONTAGE OF IMPACT RESOURCES AND ACTIVITY OUTCOMES


Source: Own compilation.

During practical activities, facilitators MW, AF, and LS circulated the room. The attendees appeared engaged, regularly discussing ideas and queries with the facilitators and each other, irrespective of whether the activity required it.

The activities largely involved learning about and applying campaigning information and tools to disciplinary topics. Since disciplinary topics were not the focus, we suggest the workshop could be applied elsewhere. The workshop resources are available here: http://bit.ly/47UW2SJ. They can be used or adapted for non-commercial purposes with notification and credit. Please contact the authors for post-publication updates or additional details.

The resources include guidance about undertaking campaigning activities not engaged in during the workshop but identified as important through stakeholder consultations.

### 2.4. Exploratory Qualitative Analysis

To minimise aforementioned concerns about emotional strain and self-expression, the pilot analysis focused on whether students found the workshop valuable and empowering. Students were invited to complete an anonymised, paper-based feedback form before leaving the workshop. They were informed that their anonymised feedback might be included in the research team's ongoing analysis and dissemination of the IMPACT Project. To minimise survey fatigue, only two open-ended questions were included:

1. Which parts of the workshop were most valuable, and which were not? Please explain your responses.
2. Has the workshop empowered you to engage in change campaigning in the future? If so, in what ways do you envision using the skills and knowledge gained? If not, please explain why and offer insights into what you would change to make it more empowering.

The responses were collated in a Microsoft Word document and used to inform refinements.

All participants highlighted the value of the workshop, and their enjoyment and appreciation of the approaches used:

> *I thoroughly enjoyed each part of today's session… the activity-based approach… was a wonderful experience... Keep doing this kind of workshop it really helps.* (Participant [P] 1)

> *I love how interactive this workshop is!!! I learned a lot, but it doesn't feel like school.* (P2)
>
> *I think every part was valuable… it has been so much fun… I feel like a lot of thought and care has been put into this… I appreciate it.* (P3)

P2 additionally offered constructive feedback, including to incorporate the Ishikawa/Fishbone diagram (Kumah et al., 2024) and the Urgency, Seriousness, Growth tool (Amartya, 2020). These have since replaced or been integrated into existing activities.

The week after the pilot, AF and LS (MW was unavailable) debriefed and reviewed the workshop based on perceptions about the flow of the day and student understanding. They observed that some students had difficulty understanding the different campaign stages. 'Stages' were rephrased to 'components' to emphasise non-linearity and were contextualised with campaign examples. More time was allocated to introducing them. Some Section Two activities that felt repetitive were also given more time and streamlined, while certain Section Three activities were reduced in duration, having not taken as long as anticipated.

## 3. Underpinning Pedagogy

Evans and Ferreira (2020) assert it is unlikely that any one pedagogical approach is most effective for ESD. However, consensus exists that active, experiential, and participatory learning are important (Vogel et al., 2023). The second column of Table 3 indicates the specific active, experiential, participatory, or other learning methods applied in each workshop section. Appendix A (second column) further breaks these down by workshop activity and clarifies whether the method(s) employed were active, experiential, participatory, or a combination.

### 3.1. Active Learning & Constructivism

Active learning (AL) encompasses tasks in which students do things and contemplate what they are doing, rather than receiving information through traditional lecturing (Bonwell & Eison, 1991; Freeman et al., 2014). AL is often described as rooted in constructivism (Doolittle et al., 2023), a learning theory with many interpretations, but most subscribe to the core idea that learners build knowledge by linking prior understanding with new experiences; knowledge cannot be passively imparted. Piaget's cognitive constructivism attributes less emphasis to the role social interaction plays in this, while Vygotsky's social constructivism stresses the importance of collaboration (Sjøberg, 2010).

The IMPACT workshop involves minimal traditional lecturing, mostly at the beginning to set context. AL methods incorporated include group discussion and debate, reflective practices, role play, educational gamification (the incorporation of game-like elements and design into learning activities; Manzano-León et al., 2021), problem-based learning (PBL), and project-based learning (PjBL; Darmawan et al., 2024; Istiningsih et al., 2024; Martínez Casanovas et al., 2022). PBL involves students exploring identified problems, before proposing solutions, with educators offering guidance as necessary (Eggen & Kauchak, 2012). PjBL shares this approach but further requires students to devise a concrete plan or product to deliver their solutions (Darmawan et al., 2024).

### 3.2. Experiential Learning & Experiential Learning Theory

Experiential learning (EL) constitutes approaches offering real-world learning opportunities (Backman et al., 2019). EL is informed by Kolb's (1984) Experiential Learning Theory (ELT), which proposes that learning is a cyclical process comprising four stages:

1. **Concrete Experience:** Learners encounter a new experience or a familiar one in a novel way.
2. **Reflective Observation:** Learners reflect on how the experience relates to their prior knowledge or perspectives.
3. **Abstract Conceptualisation:** Learners' reflections inform the creation or refinement of ideas, concepts, or theories.
4. **Active Experimentation:** Learners apply their new ideas, concepts, or theories to novel situations, adapting them in practice.

Martínez Casanovas et al. (2022) asserts that EL is a form of AL. While any AL activity incorporating real-world engagement or simulations can be considered EL, the most reported manifestations are PjBL and PBL (Backman et al., 2019).

The entire IMPACT workshop can be considered PjBL, as it supports students to create a concrete product (a change campaign) to address real-world challenges. In doing so, students move through all four stages of Kolb's (1984) cycle. Learners encounter authentic campaigns (concrete experience), consider them in relation to past experiences and knowledge about an issue they care about (reflective observation), develop new ideas for change (abstract conceptualisation), and create campaign materials to begin implementing their ideas (active experimentation).

Nevertheless, some IMPACT activities are more clearly experiential than others; only these are coded as EL in Appendix A. Section Two and Three activities focused on campaign road mapping and implementation are categorised as PjBL, while Section Two activities supporting issue identification, cause-effect analysis, and solution generation are denoted as both PBL and PjBL. One solution generation activity invites real-world community engagement through supporting existing campaigns' social media profiles and petitions. Others draw on or simulate authentic experiences to support campaign planning and communication.

### 3.3. Participatory Learning & Transformative Learning Theory

Participatory learning (PL) is often but not always another form of AL, which emphasises collaboration for knowledge construction, thereby aligning with social constructivism (Arega & Hunde, 2025). It includes group discussion or debate but also activities that promote peer learning (Dara & Kesavan, 2025). The videos contributed by a GMH student and alumnus exemplify this, although it should be noted these are passive, not active, in nature. PL activities can be those encouraging peer or community interaction and may aim beyond knowledge acquisition to socioemotional development (Dara & Kesavan, 2025), such as in the 'Scroll of Motivation' activity (see Appendix A), which involved students collectively creating a page full of supportive messages for each other.

PL is underpinned by Mezirow's (1978, 2009) Transformative Learning Theory (TLT). TLT posits that significant learning occurs when a person identifies assumptions and expectations (termed 'frames of reference') that guide their thoughts, feelings, and behaviours in problematic ways and shifts them to be more inclusive, discerning, and flexible. This process requires critical reflection on personal and others' frames of reference, achievable through dialogue. The IMPACT workshop provides several opportunities for this. For example, the ethical discussion before choosing a campaign topic invites students to examine their values and contemplate their role as change agents. Moreover, TLT is exemplified in the 'Not Always as Easy as Waving a Magic Wand' activity (see Appendix A), in which students share their campaign idea with peers role-playing the opposition. Students' views are deliberately challenged through peer dialogue, leading to perspective refinement through co-created rebuttals. Students can apply new frames of reference during subsequent campaign planning and public communication tasks.

## 4. Retrospective IDG Mapping

### 4.1. Methods

MW developed the workshop activity summaries in Appendix A. For each activity, MW and LS independently examined Jordan et al.'s (2021) definition of each IDG, recording only those they could justifiably link to the activity based on its purpose and/or content. They considered the activity summary, their experience of developing and delivering it, and, if needed, the relevant workshop materials. MW compared and synthesised both coders' records. In rare misalignments, MW re-engaged with Jordan et al.'s (2021) definitions to preliminarily decide whether to retain or discard the IDG. This was discussed with LS for final consensus.

### 4.2. Outcomes

All IDGs were deemed relevant to at least one workshop activity. For brevity, for each workshop section, the third column of Table 3 displays examples of the links considered strongest or those showing the broad applicability of the IDGs. Appendix A (column three) elaborates on which workshop activity/activities within each section these IDGs were mapped to and why.

## 5. Retrospective Student Feedback Exploration

The retrospective exploration of students' pilot feedback in relation to the IDGs involved secondary coding of existing anonymised data and was considered minimal risk. The work was conducted under the SHW's generic ethical approval for SoTL activities (Project Number: 200240024).

Separately, MW and LS reviewed six feedback items (the three students' responses to the two pilot analysis questions). For each, they reflected on each IDG definition by Jordan et al. (2021). IDGs perceived as potentially evident in the feedback item were noted if the coder could provide a well-reasoned explanation. MW collated the records, resolving disagreements using the same process as the IDG mapping exercise.

Student feedback hinted that participation could potentially help develop several IDGs. Two participants referred to cognitive expansion, which could reflect developments in complexity awareness:

> *...I was given a chance of going beyond and thinking beyond...* (P1)

> *...it really pushed me to use my brain more...* (P3)

Complexity awareness involves systems thinking (Jordan et al., 2021), the ability to comprehend interconnections between elements of a system and evaluate how changes to one affect others (Wiek et al., 2011). Following PjBL, enhanced systems thinking has been documented among students of sustainability science (Birdman et al., 2022b), accounting (Sales de Aguiar & Paterson, 2018), and engineering (Ostuzzi & Hoveskog, 2020), although gains depended on overt support to synthesise interdisciplinary knowledge in the latter. While this was an implicit not explicit characteristic of the IMPACT workshop, the feedback suggests it is feasible our PjBL event might positively impact systems thinking/complexity awareness. The literature also supports our mapping of complexity awareness to activities involving problem and solution exploration, features of PjBL.

PjBL with real-world connections and plentiful interaction has been associated with strategic-thinking competency (Birdman, et al., 2022a), an ability to engage with others to plan and execute actions (Wiek et al., 2011). Given that strategic-thinking competency involves collaborative design, the authors consider co-creation skills one of its IDG counterparts. One participant appeared to demonstrate co-creation skills through their innovative ideas for workshop improvement, but these may have been already possessed, rather than honed through attendance:

> *...Maybe for the practical parts, if someone already has a campaign, instead of asking them to do it from scratch, ask them to analyse their own movements...* (P2)

Still, our mapping of co-creation skills to 'Branding Your Change Campaign' (see Appendix A), a PjBL activity involving peer interaction to mutually design materials, appears supported by Birdman, et al. (2022a).

Experiential, participatory PjBL has also been linked to interpersonal competency (Birdman et al., 2022a), an ability to empathetically communicate, negotiate, and collaborate with others, as well as an openness to learning from diverse perspectives with understanding and respect (Wiek et al., 2011). Providing strong opportunities for peer interaction and exchange seem particularly important (Birdman et al., 2021; Konrad et al., 2020). It is, therefore, promising that IDGs we deem relevant to interpersonal competency (openness and learning mindset, perspective skills, empathy and compassion, communication skills, and inclusive mindset and intercultural competence) were frequently mapped to activities in which students respectfully dialogued about opposing views or affirmed each other's contributions. P3 seemed to refer directly to the 'Matching Campaign Activities to Campaign Stages' game (see Appendix A), mapped to perspective skills (the capacity to seek, comprehend, and apply dissimilar views; Jordan et al., 2021), when they showed an ability to perceive that distinctions between campaign stages can be subjective:

> *...differentiating between awareness, advocacy, and action was mind blowing. How complex/mixed it can be.*

Konrad et al. (2020) linked reflective practices to self-awareness, while T.J. Martin et al. (2021) found in an architectural context that Socratic dialogue was associated with improved critical thinking. In Socratic dialogue, a philosophical question is posed, followed by group exploration, during which participants make claims, with examples, to work towards a shared understanding (Mahoney et al., 2023). The ethical discussion in Section Two was not explicitly intended to be Socratic dialogue, but it shared elements in practice, as well as reflection. Aligned with the literature, critical thinking and self-awareness were mapped to this activity, as well as integrity and authenticity and humility, which are closely related to self-awareness (Jordan et al., 2021). The discussion task was not referenced in the feedback, so we cannot infer if it contributed to the possible improvements in critical thinking components (alongside communication skills and sense-making) reported by P3:

> *...I've learned to breakdown my ideas, expand them, and to briefly explain them in an impactful way...*

The logical ordering inherent to the 'Creating a Roadmap' activity (see Appendix A), was a form of backcasting, in which students imagined a desired campaign outcome before planning necessary steps to realise it. Gardiner and Rieckmann (2015) observed that backcasting improved anticipatory competency, the capacity to construct a vision for the future and identify actions to manifest it (Wiek et al., 2011). Anticipatory competency appears to share similarities with long-term orientation and visioning, the IDG this activity was mapped to.

Finally, Weinberg et al. (2020) assert that TLT-aligned activities, in which learners' frames of reference are challenged, are crucial for supporting personal confrontation and self-concept examination. Our activity exemplifying TLT, 'Not Always as Easy as Waving a Magic Wand', was mapped to inner compass, integrity and authenticity, perspective skills, and courage, all of which the authors consider relevant to Weinberg et al.'s endeavour. Their study of student teachers found that TLT-aligned activities empowered personal changes, but self-concepts rarely shifted such that students viewed themselves as change agents. By contrast, it appears plausible that at least one IMPACT workshop participant might have experienced such a shift:

> *...it has encouraged me to engage in campaign! And I am hoping to start my page... Today I surprised myself...* (P1).

### 5.1. Strengths

This case study offers a well-received ESD initiative, informed by multiple stakeholders and grounded in evidence-based pedagogy, for practitioners to experiment with. Our assertion that the IMPACT workshop could be cross-disciplinary is bolstered by the fact that a Global Health MSc student successfully participated alongside GMH students during its second delivery, although we acknowledge these are closely related fields. For those adapting or developing their own version of the workshop, this case study offers valuable insights about our process.

### 5.2. Limitations

The low attendance rate prevents conclusions about the acceptability and accessibility of the workshop and, therefore, its sustainability and scalability. However, later offerings to the 24-

25 and 25-26 on-campus GMH cohorts saw 21 of 38 (55.3%) and 14 of 34 (41.2%) students participate.

Reflecting on the lower pilot number, our early assumption was that this may have been due to timing, plus a lack of formal timetabling and email reminders. It was offered during summer, when students have minimal contact and are completing dissertations. It has since been offered during semesters one (25-26) and two (24-25), when students have weekly face-to-face learning sessions. For these cohorts, the workshop appeared on timetables, and the invitations were followed by email reminders to encourage sign-ups and attendance.

While attendance substantially increased from the pilot to the 24-25 and 25-26 academic years, optimising it further would be beneficial. A non-mandatory question added to the 24-25 GMH programme evaluation asked students who did not attend to explain why. Eleven (28.9%) of the 38 on-campus GMH students completed the evaluation. Of these, one indicated they had not attended but did not supply a reason. Data is not yet available for the 25-26 cohort, but any insights will be used to enhance acceptability and accessibility.

Given the low attendance rate, and that neither the workshop nor pilot analysis questions were designed with the IDGs in mind, the depth and reliability of our findings warrant cautious interpretation. Firstly, the three students' perspectives cannot be assumed to be generalisable, and the small sample may have amplified social desirability bias (providing positive feedback to please facilitators). Secondly, our retrospective IDG mapping and feedback exploration employed pragmatic rather than fully standardised analytic methods due to the hypothesis-generating purpose, constrained scope of the available student feedback, and proportionality considerations (i.e. the level of rigour aligned with the small scale and pilot nature of the study). This renders our interpretations vulnerable to researcher confirmation bias (a tendency to identify connections aligned with personal hopes and expectations), post-hoc attribution (perceiving links not intentionally embedded), and construct validity issues (the feedback items were not well-suited for measuring IDG development). In addition to the increased risk of false IDG connections, the lack of construct validity, combined with the small sample size, may also explain why several mapped IDGs were not reflected in students' feedback. While the feedback offers insights into the perceived value of the workshop, our interpretations of it in relation to the IDGs, and our IDG mappings, should be regarded as hypothetical and incomplete.

Interpretations of how our IDG mappings relate to the ESD literature are further weakened by the fact that specific AL, EL, and PL methods are applied variably across settings and a lack of agreement exists about how to define the skills and qualities ESD aims to promote (Vogel et al., 2023). Jordan et al. (2021) noted that the IDG framework bears similarities to others (e.g. Center for Vaeredygtighed, 2021; Dawson, 2020; Rimanoczy, 2020; Wamsler et al., 2020, 2021; Wamsler & Restoy, 2020; Warwick et al., 2017; Wiek et al., 2011). These have yet to be systematically compared against the IDGs (Jordan et al., 2021), and greater clarity over terminology is needed (Vogel et al., 2023).

### 5.3. Future Directions

Given the limitations, our student feedback interpretations and IDG mappings should be rigorously assessed in future research to determine whether and how the IMPACT workshop

promotes IDG development. Consideration should be given to how the entire workshop hones the relevant skills and qualities, as well as its individual tasks to tease out active ingredients.

To strengthen the evidence base, larger samples, consistent competency definitions, and appropriate evaluation tools should be engaged. Evaluation challenges are prevalent across the ESD literature, not only due to conflicting terminology. Value changes can be harder to determine, especially as they have historically been out of scope for HEIs. Furthermore, currently, self-report data, subject to social desirability bias, is relied on. Valid assessment tools should be developed, and self-report data triangulated with that obtained through other sources like educator observation (Vogel et al., 2023).

The lack of standardised evaluation metrics, combined with under-describing of ESD initiatives and diversity in how pedagogical methods are implemented, makes it difficult to compare the effectiveness of ESD initiatives, beyond considering their relative positions on Vogel et al.'s (2023) integration approach continuum (see Table 2). However, this is an important future research avenue. We are hopeful that, as an Approach Three, the IMPACT workshop is a robust, valuable option for ESD practitioners unable to implement Approaches Four or Five. However, the UoG (n.d.) is developing 50-100 credit-bearing, interdisciplinary courses providing EL opportunities to examine and tackle SDG-related concerns. The IMPACT Project may expand into one such course, evolving it into an Approach Five, underpinned by a whole-institution approach and ideally involving community partners in design and delivery. This is deemed the most effective route for ESD integration in HEIs (Vogel et al., 2023). Rather than relying on retrospective mapping, future iterations of the IMPACT Project (or any ESD initiative) should deliberately and systematically embed IDG-related competencies into activity design.

Finally, future work should ensure equity of access for online distance learning students. After the pilot, a student-staff partnership with all three participants led to the development of an asynchronous version for online distance learning GMH students. This launched in March 2025 but was poorly utilised by the 30 students enrolled. Asynchronous workshop models pose unique challenges, especially in facilitating PL (Tetu et al., 2025), and future work must explore and address barriers. Although these students were similarly invited to explain non-participation in the 24-25 programme evaluation, only one (3.3%) completed it. They indicated they had not participated but did not explain why.

## 6. Conclusion

This case study aimed to comprehensively outline the IMPACT Project for ESD practitioners to explore its utility elsewhere. We further aimed to describe its underpinning pedagogy, retrospectively map its activities to the IDGs and explore student feedback in relation to the mappings and ESD literature, to generate future research hypotheses. Potential for the development of 15 of 23 IDGs was tentatively indicated by our student feedback exploration and literature review. However, all interpretations and IDG mappings must be rigorously evaluated through future iterations of the workshop, including across contexts.

For ESD practitioners interested in replicating the IMPACT Project, practical guidance regarding contextual adaptations, resource requirements, facilitator preparation, and viable participant numbers and scalability considerations are available in Appendix B. Limited staff time and financial constraints pose barriers to implementation in different institutions. However, introducing/adapting and evaluating the IMPACT workshop, rather than developing

a new ESD initiative, could make efficient use of limited university resources, as the development burden has already been shouldered. Nevertheless, applying ESD initiatives, ours or others', requires ongoing funding and training support. When institutional policies and strategies do not emphasise ESD or its values, such support is less likely. Like Vogel et al. (2023), we urge senior management in HEIs to make ESD an institutional priority to ensure an advanced understanding about how to facilitate progress towards SDG target 4.7, and the SDGs more broadly.

## References

Advance HE. (2025). *Education for sustainable development curriculum design toolkit*. https://www.advance-he.ac.uk/knowledge-hub/education-sustainable-development-curriculum-design-toolkit

Advance HE, & Quality Assurance Agency. (2021). *Education for sustainable development guidance*. https://www.advance-he.ac.uk/knowledge-hub/education-sustainable-development-guidance

Amartya, D. (2020, August 6). *Urgency, seriousness, and growth (USG)*. https://danielamartya.wixsite.com/mysite/post/urgency-seriousness-and-growth-usg

Arega, N. T., & Hunde, T. S. (2025). Constructivist instructional approaches: A systematic review of evaluation-based evidence for effectiveness. *Review of Education, 13*(1), e70040. https://doi.org/10.1002/rev3.70040

Backman, M., Pitt, H., Marsden, T., Mehmood, A., & Mathijs, E. (2019). Experiential approaches to sustainability education: Towards learning landscapes. *International Journal of Sustainability in Higher Education, 20*(1), 139–156. https://doi.org/10.1108/IJSHE-06-2018-0109

Birdman, J., Barth, M., & Lang, D. J. (2022a). Connecting curricula and competence through student learning journeys. *Sustainability: Science, Practice and Policy, 18*(1), 560–575. https://doi.org/10.1080/15487733.2022.2097773

Birdman, J., Redman, A., & Lang, D. J. (2021). Pushing the boundaries: Experience-based learning in early phases of graduate sustainability curricula. *International Journal of Sustainability in Higher Education, 22*(2), 237–253. https://doi.org/10.1108/IJSHE-08-2019-0242

Birdman, J., Wiek, A., & Lang, D. J. (2022b). Developing key competencies in sustainability through project-based learning in graduate sustainability programmes. *International Journal of Sustainability in Higher Education, 23*(5), 1139–1157. https://doi.org/10.1108/IJSHE-12-2020-0506

Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. https://files.eric.ed.gov/fulltext/ED336049.pdf

Center for Væredygtighed. (2021). *Væredygtighed: Indersiden af bæredygtighed*. Dafolo.

Dara, V. L., & Kesavan, C. (2025). Analysing the concept of participatory learning: Strategies, trends and future directions in education. *Kybernetes, 54*(7), 3882–3915. https://doi.org/10.1108/K-12-2023-2581

Darmawan, H., Hakti, F., Damayanti, R., Fikri, M., & Rafi'i, H. (2024). Comparison of the effectiveness of problem-based learning (PBL) and project-based learning (PjBL) models in

the learning process. *Alifmatika Journal, 6*(2), 176–191. https://doi.org/10.35316/alifmatika.2024.v6i2.176-191

Dawson, T. (2020). *VUCA unpacked (1)—Introduction*. https://theo-dawson.medium.com/vuca-unpacked-1-introduction-57cf72ac368b

Doolittle, P., Wojdak, K., & Walters, A. (2023). Defining active learning: A restricted systematic review. *Teaching and Learning Inquiry, 11*, Article 25. https://doi.org/10.20343/TEACHLEARNINQU.11.25

Eggen, P. D., & Kauchak, D. P. (2012). *Strategies and models for teachers: Teaching content and thinking skills* (6th ed.). Prentice Hall.

Evans, N., & Ferreira, J.-A. (2020). What does the research evidence base tell us about the use and impact of sustainability pedagogies in initial teacher education? *Environmental Education Research, 26*(1), 27–42. https://doi.org/10.1080/13504622.2019.1703908

Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences of the United States of America, 111*(23), 8410–8415. https://doi.org/10.1073/pnas.1319030111

Gardiner, S., & Rieckmann, M. (2015). Pedagogies of preparedness: Use of reflective journals in the operationalisation and development of anticipatory competence. *Sustainability, 7*, 10554–10575. https://doi.org/10.3390/su70810554

Istiningsih, I., Unruh, T., Sutrisno, S., & Kurniawati, U. M. (2024). Active learning with research based on three principles of higher education. *Journal of Education and Learning (EduLearn), 18*(2), 421–429. https://doi.org/10.11591/edulearn.v18i2.20966

Ives, C. D., Freeth, R., & Fischer, J. (2020). Inside-out sustainability: The neglect of inner worlds. *Ambio, 49*, 208–217. https://doi.org/10.1007/s13280-019-01187-w

Jordan, T., Reams, J., Stålne, K., Greca, S., Henriksson, J. A., Björkman, T., & Dawson, T. (2021). *Inner development goals: Background, method and the IDG framework*. https://idg-deutschland.de/wp-content/uploads/go-x/u/63468848-402b-4b81-9c3f-297c061b07e2/IDG_Report_Full.pdf

Kamalov, F., Santandreu Calonge, D., & Gurrib, I. (2023). New era of artificial intelligence in education: Towards a sustainable multifaceted revolution. *Sustainability, 15*, 12451. https://doi.org/10.3390/su151612451

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Konrad, T., Wiek, A., & Barth, M. (2020). Embracing conflicts for interpersonal competence development in project-based sustainability courses. *International Journal of Sustainability in Higher Education, 21*(1), 76–96. https://doi.org/10.1108/IJSHE-06-2019-0190

Kumah, A., Nwogu, C. N., Issah, A.-R., Obot, E., Kanamitie, D. T., Sifa, J. S., & Aidoo, L. A. (2024). Cause-and-effect (fishbone) diagram: A tool for generating and organising quality improvement ideas. *Global Journal on Quality and Safety in Healthcare, 7*(2), 85–87. https://doi.org/10.36401/JQSH-23-42

Mahoney, B. B., Oostdam, R. R., Nieuwelink, H. H., & Schuitema, J. J. (2023). Learning to think critically through Socratic dialogue: Evaluating a series of lessons designed for secondary

vocational education. *Thinking Skills and Creativity, 50*, 101422. https://doi.org/10.1016/j.tsc.2023.101422

Manzano-León, A., Camacho-Lazarraga, P., Guerrero, M. A., Guerrero-Puerta, L., Aguilar-Parra, J. M., Trigueros, R., & Alias, A. (2021). Between level up and game over: A systematic literature review of gamification in education. *Sustainability, 13*, 2247. https://doi.org/10.3390/su13042247

Martin, G. (2019). *Be the change: A toolkit for the activist in you*. Sphere.

Martin, T. J., Serrano-Estrada, L., & Esteve-Faubel, J. M. (2021). Critical thinking: A base for urban sustainable development. *Higher Education Research & Development, 40*(2), 309–324. https://doi.org/10.1080/07294360.2020.1752629

Martínez Casanovas, M., Ruíz-Munzón, N., & Buil-Fabregá, M. (2022). Higher education: The best practices for fostering competences for sustainable development through the use of active learning methodologies. *International Journal of Sustainability in Higher Education, 23*(3), 703–727. https://doi.org/10.1108/IJSHE-03-2021-0082

Mburayi, L., & Wall, T. (2018). Sustainability in the professional accounting and finance curriculum: An exploration. *Higher Education, Skills and Work-Based Learning, 8*(3), 291–311. https://doi.org/10.1108/HESWBL-03-2018-0036

Mezirow, J. (1978). Perspective transformation. *Adult Education, 28*(2), 100–110. https://doi.org/10.1177/074171367802800202

Mezirow, J. (2009). An overview of transformative learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists… in their own words* (1st ed., pp. 90–105). Routledge. https://www.normfriesen.info/files/Mezirows_overview_transformative.pdf

Mokski, E., Leal Filho, W., Sehnem, S., & Andrade Guerra, J. B. S. O. de. (2023). Education for sustainable development in higher education institutions: An approach for effective interdisciplinarity. *International Journal of Sustainability in Higher Education, 24*(1), 96–117. https://doi.org/10.1108/IJSHE-07-2021-0306

Ostuzzi, F., & Hoveskog, M. (2020). Education for flourishing: An illustration of boundary object use, peer feedback and distance learning. *International Journal of Sustainability in Higher Education, 21*(4), 757–777. https://doi.org/10.1108/IJSHE-09-2019-0271

Rimanoczy, I. (2020). *The sustainability mindset principles: A guide to developing a mindset for a better world*. Routledge. https://doi.org/10.4324/9781003095637

Sales de Aguiar, T. R., & Paterson, A. S. (2018). Sustainability on campus: Knowledge creation through social and environmental reporting. *Studies in Higher Education, 43*(11), 1882–1894. https://doi.org/10.1080/03075079.2017.1289506

Sharp, L., Foley, A., Wilson, M., & Langan Martin, J. (2025). The start of a new journey: Decolonising the global mental health curriculum. *Equity in Education & Society, 4*(2), 223–241. https://doi.org/10.1177/27526461241312692

Sjøberg, S. (2010). Constructivism and learning. In P. Peterson, E. Baker, & B. McGaw (Eds.), *International encyclopedia of education* (3rd ed., pp. 485–490). Elsevier. https://doi.org/10.1016/B978-0-08-044894-7.00467-X

Tetu, I. C., Kelly, S., Fu, J., Kirby, C. K., Schopieray, S., & Thomas, S. (2025). Developing Asynchronous Workshop Models for Professional Development. *Communication Design Quarterly*, 12. 37-43. https://doi.org/10.1145/3627691.3627695

Tijsma, G., Horn, A., Urias, E., & Zweekhorst, M. B. M. (2023). Training students in inter- and transdisciplinary sustainability education: Nurturing cross-faculty staff commitment and continuous community collaboration. *International Journal of Sustainability in Higher Education, 24*(4), 765–787. https://doi.org/10.1108/IJSHE-02-2022-0049

UNESCO. (2025). *What you need to know about education for sustainable development*. https://www.unesco.org/en/sustainable-development/education/need-know

United Nations. (n.d.-a). *Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all: Targets and indicators*. Retrieved June 24, 2025, from https://sdgs.un.org/goals/goal4#targets_and_indicators

United Nations. (n.d.-b). *The 17 goals*. Retrieved June 4, 2025, from https://sdgs.un.org/goals

United Nations. (2024). *Progress towards the Sustainable Development Goals: Report of the Secretary-General*. https://unstats.un.org/sdgs/files/report/2024/SG-SDG-Progress-Report-2024-advanced-unedited-version.pdf

University of Glasgow. (2021). *Learning and teaching strategy 2021–2025*. https://www.gla.ac.uk/myglasgow/learningandteaching/about/

Vogel, M., Parker, L., Porter, J., O'Hara, M., Tebbs, E., Gard, R., He, X., & Gallimore, J.-B. (2023). *Education for sustainable development: A review of the literature 2015–2022*. https://www.advance-he.ac.uk/knowledge-hub/education-sustainable-development-review-literature-2015-2022

Wamsler, C., Osberg, G., Osika, W., Herndersson, H., & Mundaca, L. (2021). Linking internal and external transformation for sustainability and climate action: Towards a new research and policy agenda. *Global Environmental Change, 71*, 102373. https://doi.org/10.1016/j.gloenvcha.2021.102373

Wamsler, C., & Restoy, F. (2020). Emotional intelligence and the Sustainable Development Goals: Supporting peaceful, just, and inclusive societies. In L. F. Walter, A. M. Azul, L. Brandli, A. L. Salvia, P. G. Özuyar, & T. Wall (Eds.), *Peace, justice and strong institutions*. Springer. https://doi.org/10.1007/978-3-319-71066-2_123-1

Wamsler, C., Schäpke, N., Fraude, C., Stasiak, D., Bruhn, T., Lawrence, M., Schroeder, H., & Mundaca, L. (2020). Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties. *Environmental Science & Policy, 112*, 227–235. https://doi.org/10.1016/j.envsci.2020.06.005

Warwick, P., Wyness, L., & Conway, H. (2017). 'Think of the future': Managing educational change from students' perspectives of an undergraduate sustainable business programme. *The International Journal of Management Education, 15*(2), 192–204. https://doi.org/10.1016/j.ijme.2017.03.010

Weinberg, A. E., Trott, C. D., Wakefield, W., Merritt, E. G., & Archambault, L. (2020). Looking inward, outward, and forward: Exploring the process of transformative learning in teacher education for a sustainable future. *Sustainability Science, 15*, 1767–1787. https://doi.org/10.1007/s11625-020-00831-9

Weiss, M., & Barth, M. (2019). Global research landscape of sustainability curricula implementation in higher education. *International Journal of Sustainability in Higher Education, 20*(4), 570–589. https://doi.org/10.1108/IJSHE-10-2018-0190

Weiss, M., Barth, M., Wiek, A., & von Wehrden, H. (2021). Drivers and barriers of implementing sustainability curricula in higher education: Assumptions and evidence. *Higher Education Studies, 11*(2), 42–64. https://doi.org/10.5539/hes.v11n2p42

World Health Organization. (2025). *Pandemic prevention, preparedness and response accord*. https://www.who.int/news-room/questions-and-answers/item/pandemic-prevention--preparedness-and-response-accord

Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: A reference framework for academic programme development. *Sustainability Science, 6*, 203–218. https://doi.org/10.1007/s11625-011-0132-6

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 17*(2), 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x

Wood, P. (2024). The inner development goals: Changing educational systems to meet the challenge of human-generated global crises. In I. Kushnir, K. Sood, M. S.-A. Park, H. Zhong, & N. Serret (Eds.), *Education and sustainable development in the context of crises: International case studies of transformational change* (pp. 125–139). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83797-773-420241008

## Appendices

## Appendix A. Workshop Overview, Pedagogy, and IDG Mapping

| Workshop Activity | Underpinning Pedagogy | Mapped IDGs & Justifications |
|---|---|---|
| **Section 1: Introduction to Change Campaigning** | | |
| **Welcome to IMPACT (15 mins)** Facilitators and attendees introduced themselves. The workshop plan was outlined. | **N/A** | **N/A** |
| **Introduction to Change Campaigning (5 mins)** 'Campaign' was defined, and Gina Martin's (2019) campaign stages (awareness, advocacy, action) were explained. | **Traditional Lecturing** | **Sense-Making:** Deconstructs social movements to identify patterns. |
| ***Matching Campaign Activities to Campaign Stages (15 mins)** Students voted using whiteboard paddles and markers for which campaign stage best matched each of ten example activities, justifying their choices to the group. | **AL: Gamification AL+PL: Group Debate** | **Perspective Skills:** Supports understanding that the same entity can be variably interpreted. **Communication Skills:** Offers practice listening to others and skillfully articulating one's own understandings. |
| **Benefits of Change Campaigning (15 mins)** | **Traditional Lecturing** | **Connectedness:** Highlights the value of belonging to a larger movement and making community contributions. |

| | | |
|---|---|---|
| Diverse case studies of successful campaigns at local, national, and international levels exemplified individual and community benefits. | | **Optimism:** Promotes confidence that positive outcomes can be achieved. |
| **Challenges of Change Campaigning & Drafting a Self-Care Plan (25 mins)**<br>Evidence-based wellbeing risks were outlined. Students contemplated personal stress signals based on past experiences and planned how to respond if they manifest while campaigning. | **AL+EL: Self-Reflection** | **Self-Awareness:** Assists deeper understanding of stress responses to aid self-monitoring.<br>**Presence:** Facilitates responding to stress with conscious care. |
| **Break (10 mins)** | | |
| **Section 2: Planning a Change Campaign** | | |
| **The Power of Storytelling (10 mins)**<br>In a video, a GMH alumnus shared how storytelling enhanced a local campaign addressing challenges faced by care-experienced youth. | **PL: Peer Learning** | **Trust:** Shows how sharing personal or community stories can build audience trust. |
| **Reflecting on Storytelling Considerations & 'Universal' & Non-Human Issues (15 mins)**<br>The group discussed ethical concerns around campaigning without personal experience of an issue and balancing empowerment and risk when inviting others to share stories. | **AL+PL: Group Discussion, Reflection** | **Integrity & Authenticity:** Supports reflection on the ethical responsibility of representing issues truthfully and respectfully.<br>**Self-Awareness:** Generates insights about personal campaigning motivations.<br>**Critical Thinking:** Prompts power dynamic analysis and reflection on ethical nuances.<br>**Humility:** Promotes consideration of supporting, rather than launching, campaigns if not the appropriate person to lead.<br>**Inclusive Mindset & Intercultural Competence:** Encourages sensitivity to others' identities and the need for ethical representation. |
| **Getting Issue-Specific (20 mins)**<br>Students reflected on the SDGs and created a flow chart to distil a broad issue they were passionate about into smaller problems and sub-problems. AI could facilitate this. Participants selected the sub-problem most important to them to target through their campaign. | **AL+EL: PBL/PjBL** | **Inner Compass:** Involves values-driven decision-making about which problem to address. |
| ***Mapping Causes & Consequences (20 mins)**<br>Students completed a tree diagram, writing the causes of their problem in the roots and consequences in the canopy. | **AL+EL: PBL/PjBL** | **Complexity Awareness:** Aids visualisation of interrelationships between causal factors and consequences. |
| **Break (5 mins)** | | |
| **Exploring Solutions & Supporting Existing Change Campaigns (30 mins)** | **AL+EL: PBL/PjBL** | **Humility:** Supports recognition that others' work can strengthen one's own ideas. |

| | | |
|---|---|---|
| Students explored, and were invited to support, social media campaigns and/or petitions to expand their ideas of solutions to the causes of their problem. | | |
| ***Getting Solution-Specific (10 mins)** Based on the previous activity, students proposed a novel solution on an index card. Ways to achieve novelty included targeting new settings or demographics. The feasibility of the solution and its relevance to GMH was justified on the back of the card. | **AL+EL: PBL/PjBL** | **Creativity:** Inspires innovation in solution design. |
| ***Linking Solutions to the SDGs (10 mins)** From 17 tile cards representing the SDGs, students selected those their solution could support. Relevant tiles were laid around the index card, with choices justified to the group. A prize was awarded to the individual with the most applicable SDGs. | **AL+EL+PL: Gamification, Group Debate, PBL/PjBL** | **Complexity Awareness:** Promotes realisation that one solution can advance multiple SDGs, with interdisciplinary effects. |
| **Lunch Break (50 mins)** | | |
| ***Creating a Roadmap (40 mins)** Supplied with a roadmap template, colouring pens, and modelling clay, students drew or created symbols representing change campaigning activities they will undertake. They arranged these in a logical sequence aligned with Gina Martin's (2019) campaign stages to visualise a path to success. | **AL+EL: Gamification, PjBL** | **Long-Term Orientation & Visioning:** Cultivates future thinking by planning actions for envisioned change. **Creativity:** Facilitates visual expression of campaign ideas using creative methods. |
| **Section 3: Implementing a Change Campaign** | | |
| ***Branding Your Change Campaign (25 mins)** Using AI for campaign name inspiration, students recorded their top two on index cards and moved around the room to place a token next to their preferred option for each attendee. This process was replicated for hashtags. Students then created simple logos using AI and sourced royalty-free images to build a visual identity for their campaign's online presence. | **AL+EL+PL: Gamification, PjBL** | **Co-Creation Skills:** Involves shared feedback to mutually refine ideas. |
| **Break (5 mins)** | | |
| **Developing an Elevator Pitch (30 mins)** The five key elements of an elevator pitch were contextualised with an example. Students drafted each element with timed prompts determined by complexity (one or four minutes). Extra time was given at the end to address | **AL+EL+PL: Group Discussion, PjBL** | **Communication Skills:** Enables clear, concise, persuasive argument expression. |

| | | |
|---|---|---|
| unfinished sections and discuss challenges with peers and facilitators. | | |
| **Not Always as Easy as Waving a Magic Wand (60 mins)**<br>The importance of being prepared for resistance was overviewed, and a video of a GMH student talking about their experience was shown. Students were invited to deliver their elevator pitch while playfully waving a magic wand, with peers role-playing respectful opposition. Rebuttals to counterarguments were co-developed. | **PL: Peer Learning**<br>**AL+EL+PL: Gamification, Group Debate, Role Play** | **Inner Compass:** Requires commitment to something greater than oneself to defend campaign.<br>**Integrity & Authenticity:** Rebuttal co-development encourages sincere reflection on critique.<br>**Openness & Learning Mindset:** Encourages willingness to learn about alternative views.<br>**Perspective Skills:** Facilitates understanding of and active engagement with opposing views.<br>**Courage:** Inspires confident defense of beliefs and actions when facing resistance. |
| **Online Safety Considerations (5 mins)**<br>Students learned to distinguish respectful online debate from harassment. Practical guidance and resources for seeking support were provided. | **Traditional Lecturing** | **Perseverance:** Provides resilience-supporting tools for use during experiences that deter engagement. |
| **Using Elevator Pitches to Create Summary Social Media Posts (25 mins)**<br>Students transformed elevator pitches into campaign launch social media posts using a PowerPoint template and branding materials curated earlier. Information was provided about which formats work best for different platforms. | **AL+EL: PjBL** | **Communication Skills:** Advances the crafting of messages tailored to different audiences.<br>**Mobilisation Skills:** Promotes strategic consideration of actions to build public interest. |
| **Next Steps (5 mins)**<br>Students set a 24-hour timer to reflect on readiness to campaign. Next steps were suggested for those who after this decided to launch their campaign. | **AL+EL: PjBL, Self-Reflection** | **Integrity & Authenticity:** Supports decisions driven by personal values and capacity, rather than external expectations. |
| **Scroll of Motivation (15 mins)**<br>Each student wrote their name at the bottom of a sheet of paper. A 'scroll of motivation' was created by passing each paper to their neighbour, who wrote a supportive message about the student's ability to effect meaningful change. After folding the paper to hide their message, they passed it to the next person. This continued until each attendee received their own paper back. | **AL+PL: Peer Interaction** | **Appreciation:** Cultivates gratitude by recognising others' change-making contributions and potential.<br>**Empathy & Compassion:** Promotes kindness towards group members.<br>**Co-Creation Skills:** Builds a collaborative, trust-based campaigning network.<br>**Inclusive Mindset & Intercultural Competence:** Nurtures a sense of belonging and valuing of diverse contributions. |
| **Feedback & Invitation for Future Involvement (10 mins)**<br>Students were thanked for their participation, asked to complete a brief | **N/A** | **N/A** |

| | | |
|---|---|---|
| feedback form, and invited to join the team to refine and facilitate future workshop iterations. | | |

Source: Own compilation.

## Appendix B. Practical Guidance for Replication

| Factor | Details & Recommendations |
|---|---|
| **Contextual Adaptations** | The Global Health MSc student who participated in an on-campus workshop with GMH students was advised to replace any mention of 'GMH' with 'Global Health', which worked well. As such, in preparation for offering the next asynchronous IMPACT workshop across the SHW, the only adaptation made has been to replace all references to 'GMH' with 'your field'.<br><br>In this instance, the authors believe this is sufficient, but we recognise that all SHW degree programmes are health related. While the examples illustrating key concepts in the workshop resources are not uniquely health-focused, practitioners from very different, non-health-related fields may wish to introduce examples more relevant to their discipline.<br><br>Additionally, while the IMPACT workshop attends to campaigning safety, practitioners in countries other than the UK, especially those with weaker human rights protections, are advised to ensure the information and advice provided is culturally relevant and does not expose students to unacceptable risks.<br><br>Finally, the IMPACT workshop in its current form follows UoG conventions and signposts students to resources and software specific to or supported by the UoG. Practitioners elsewhere may need to alter the presentation and linked resources and software to align with their institutions' preferences. |
| **Resource Requirements** | **Time:** The amount of adaptation required will vary by context, so specific details about the amount of time needed for this cannot be provided. However, for reference, we estimate that developing and refining the on-campus workshop materials has taken our team 120-150 hours to date. We anticipate that making even significant adjustments would take far less time. In addition to adaptation, approximately one hour per workshop is needed to ensure enough template documents have been printed and that an adequate number of workshop items (see Appendix A) are in possession or have been ordered. Preparing SDG tiles takes a further 20 minutes per set to print, cut, laminate, cut again, and secure in stacks. Roughly one hour is needed either side of the workshop to prepare and clear the space. Facilitating the workshop takes eight hours, including lunch. Post-workshop debriefs and reviews require 1-2 hours. The amount of time needed to address any resulting actions would vary based on student feedback and facilitators' impressions, and the adaptation cycle would recommence.<br><br>**Personnel:** We recommend a minimum of two facilitators, ideally one |

| | |
|---|---|
| | being a student partner.<br><br>**Funding:** The cost per hour of facilitators' time depends on the number of personnel, their salary, and the institution. |
| **Facilitator Preparation** | Facilitators should be familiar with AL, EL, and PL methods. If they are not confident with these approaches, we recommend seeking relevant institutional or external training sessions, consulting guides such as Advance HE's (2025) *ESD Curriculum Design Toolkit,* and shadowing or co-facilitating an IMPACT workshop before leading one. |
| **Viable Participant Numbers & Scaling-Up Considerations** | While it was possible to facilitate the workshop with three students, to maximise PL, we recommend delivering it to at least 5-10 students at a time. The highest number of students who have participated in a single on-campus IMPACT workshop so far has been 14. This was manageable, although there was insufficient time to complete all activities. The facilitators polled the students on whether they wished to complete the 'Creating Summary Social Media Posts' or the 'Scroll of Motivation' activity (see Appendix A); they chose the latter.<br><br>Thus, to scale up for cohorts larger than around 15, utilising breakout groups for some PL activities may be beneficial, particularly the 'Not Always as Easy as Waving a Magic Wand' exercise, which could take a significant amount of time if every student volunteered to present. We have never encountered this scenario, but it is important to prepare for it.<br><br>For even larger cohorts (30+), we expect that additional facilitators may be necessary, or the asynchronous version of the workshop may be more appropriate. |

Source: Own compilation.

## Declaration Statements

### Conflict of Interest
The author reports no conflict of interest.

### Funding
The author received no financial support for this chapter's research, authorship, and/or publication.

### Data Availability
Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

https://doi.org/10.56611/idg.casebook.001.10

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Mia Wilson who can be contacted by email via mia.wilson@glasgow.ac.uk

https://doi.org/10.56611/idg.casebook.001.11

# CASEBOOK OF IDG IMPLEMENTATION INTO HIGHER EDUCATION

# Nature-Based Wilderness Field Trips as Inner Development Guide (IDG) Interventions: A Southern African Case Study of Inner to Outer Transformation Among University Students

**Isabel Wolf-Gillespie**

Stellenbosch University Business School, South Africa
ORCID: 0009-0004-0321-4415

**Abstract**

This case study explores how a nature-based wilderness intervention can foster inner-to-outer sustainability transformation among university students in Southern Africa. Grounded explicitly in the Inner Development Guide (IDG) and the earlier Inner Development Goals framework, which positions inner capacities such as self-awareness, relational intelligence, and systems thinking as foundational to sustainable transformation, the study investigates how experiential learning in nature contributes to the development of these capacities. Drawing on the archetypal frameworks of the Hero's and Heroine's Journey, the intervention was designed as a six-day immersive field experience structured around departure, initiation, and return, centred on a real-world conservation crisis. Using a qualitative interpretivist case study design, data were collected through student journals, facilitator field notes, and group reflection sessions and analysed using inductive thematic analysis. Findings indicate that participants experienced significant inner transformation, including increased self-awareness, emotional regulation, ecological identity, and relational sensitivity which are capacities closely aligned with the IDG dimensions of Being, Relating, and Thinking. Female participants in particular described a rebalancing of internalised leadership norms after observing matriarchal animal societies, suggesting the importance of integrating relational and intuitive capacities into sustainability leadership development. The intervention also generated outer transformation outcomes, including enhanced commitment to community-based sustainability initiatives and peer engagement. The study contributes to emerging research on IDG-aligned higher education interventions by offering a replicable experiential model that integrates archetypal psychology, transformative learning theory, and sustainability education. It responds to calls for higher education institutions to move beyond traditional cognitive pedagogies toward developmental approaches that cultivate the inner capacities required for systemic change.

***Keywords/key phrases*:** Inner Development Guide (IDG), Wilderness Intervention, Sustainability Leadership Development, Inner Development Goals (IDGs)

https://doi.org/10.56611/idg.casebook.001.11

## 1. Introduction

Sustainability transformation requires more than technological innovation or policy reform. Increasingly, scholars argue that systemic change depends on the development of inner capacities such as self-awareness, values clarity, emotional regulation, relational competence, and systems thinking (Sterling, 2011; Wamsler et al. 2021, 2024). Higher education institutions are therefore being called upon to move beyond knowledge transmission toward developmental approaches that cultivate the competencies required for navigating complexity and uncertainty (Giesenbauer & Müller-Christ, 2020).

The Inner Development Guide (IDG) (Inner Development Goals [IDGs], 2025) is the latest development of the former Inner Development Goals framework (IDGs, 2023) provides a structured articulation of these capacities, organised into five dimensions: Being, Thinking, Relating, Collaborating, and Acting underpinned by 25 skills. The IDG positions sustainable transformation as rooted in inner development, arguing that without shifts in the inner human dimensions, outer policy and structural reforms remain insufficient. Despite growing recognition of these inner-to-outer transformative lens, there remains limited empirical research demonstrating how higher education interventions can intentionally cultivate IDG-aligned capacities through experiential learning.

Nature-based education has been identified as a promising approach for fostering ecological identity and pro-environmental behaviour (Hinds & Sparks, 2008; Kellert & Wilson, 1995). Studies suggest that immersive wilderness experiences can generate perspective transformation, emotional resilience, and ethical commitment (Mezirow, 2000; Rimanoczy & Llamazares, 2021). Wamsler et al. (2021, 2024) suggest that our biological makeup predisposes us to seek connection and interdependence, a tendency that reaches beyond interpersonal relationships to include our embeddedness within and reliance upon the natural systems that sustain life (Baek & Parkinson, 2022). However, there is limited research connecting such educational interventions explicitly to any of the five IDG dimensions or to archetypal developmental models such as the Hero's and Heroine's Journey.

The Hero's Journey, as articulated by Campbell (1949), describes a mythic structure of departure, initiation, and return through which individuals undergo transformation and re-enter society with new insight. The Heroine's Journey, as reframed by Murdock (1990), emphasises inner reconciliation, healing of gendered splits, and integration of relational and intuitive capacities. While the Hero's Journey often foregrounds external conquest, the Heroine's Journey centres psychological integration and restoration of connection. Both frameworks offer developmental metaphors relevant to sustainability leadership, particularly when interpreted through contemporary adult development theory (Kegan, 1982).

This study presents a qualitative case study of a six-day wilderness intervention in Botswana designed as a lived enactment of both the Hero's and Heroine's Journey simultaneously. The intervention aimed to cultivate IDG-aligned capacities through immersive ecological experience, a sense of adventure and wilderness, reflective practice, and engagement with a real-world conservation crisis.

### 1.1. Aim of the Study

The aim of this study is to examine how a structured, nature-based wilderness intervention grounded in the Hero's and Heroine's Journey can foster inner development capacities aligned with the IDG among university students in Southern Africa.

### 1.2. Research Questions

This study explores how participants experience inner transformation within a wilderness-based intervention structured around the Hero's and Heroine's Journey frameworks. It examines the ways in which these transformative experiences correspond with the five dimensions of the IDG - Being, Thinking, Relating, Collaborating, and Acting - and considers how participation in the intervention may shape individual readiness to engage in outer sustainability action. In addition, the study investigates how female participants interpret their experiences in relation to gendered leadership norms and the conceptual lens of the Heroine's Journey.

### 1.3. General Impact on Participants

For all participants, the intervention functioned as a structured departure from habitual environments and meaning systems, creating conditions for reflective disruption and identity re-evaluation consistent with transformative learning theory (Mezirow, 2000). Immersion in wilderness and exposure to ecological interdependence provided embodied experiences of systems thinking and interconnectedness, central capacities within the IDG Thinking and Being dimensions.

### 1.4. Particular Impact on Female Participants

In addition to general transformative effects, the intervention invited female participants to critically reflect on internalised leadership norms shaped by patriarchal socialisation. Feminist leadership scholarship suggests that women frequently navigate expectations aligned with masculine-coded traits such as competitiveness and emotional restraint (Eagly & Karau, 2002). The Heroine's Journey provides a symbolic structure for exploring reconciliation between culturally constructed masculine and feminine dimensions within the self (Murdock, 1990).

By observing matriarchal animal societies and engaging in reflective dialogue, female participants were invited to reconsider relational, intuitive, and collaborative forms of leadership as legitimate and powerful which are capacities closely aligned with the IDG dimensions of Relating and Collaborating.

### 1.5. Contribution to IDG and Skills Development Discourse

This study contributes to the emerging literature on inner development and sustainability by offering an empirically grounded case study that connects wilderness-based experiential learning with the IDG, adult development theory, and archetypal psychology. It responds directly to calls within higher education to cultivate transformative skills rather than solely cognitive competencies (Giesenbauer & Müller-Christ, 2020), and situates sustainability leadership development within a developmental and relational paradigm.

## 2. Literature Review

### 2.1. Inner Development and Sustainability in Higher Education

As higher education institutions respond to escalating socio-ecological crises, there is growing recognition that sustainability leadership cannot be cultivated through cognitive instruction alone. Traditional pedagogies that prioritise technical knowledge and abstract systems thinking have been criticised as insufficient for addressing complexity, uncertainty, and ethical ambiguity (Sterling, 2011). Universities are increasingly called to foster the inner capacities required to navigate systemic interdependence with resilience and responsibility (Giesenbauer & Müller-Christ, 2020).

The Inner Development Guide (IDGs, 2023, 2025) articulate five interrelated dimensions necessary for sustainable transformation: Being (self-awareness and integrity), Thinking (critical and systems thinking), Relating (empathy and connectedness), Collaborating (co-creation and trust), and Acting (courage and persistence). The IDG positions sustainability as both structural and consciousness-based transformation, arguing that external systems change depends upon corresponding inner development. Despite this recognition, empirical research remains limited regarding how higher education interventions intentionally cultivate IDG-aligned capacities through embodied and experiential methodologies.

Nature-based and archetypally informed approaches offer a promising yet under-theorised pathway. The following sections synthesise scholarship on the Hero's and Heroine's Journey, Jungian archetypal psychology, the human–nature connection, and adult developmental theory, establishing the conceptual foundation for an inner-to-outer approach of sustainability transformation.

### 2.2. The Hero's and Heroine's Journey: Structure and Transformative Significance

The narrative structure of the Hero's Journey is articulated by Campbell (1949) who describes a monomyth of departure, initiation, and return. The traditional Hero's Journey foregrounds external trials, confrontation with adversity, transformation and the return with insight and wisdom that benefits society.

Building on this work, Murdock (1990) developed the Heroine's Journey, which reframes transformation as an inward and psychologically integrative process. The Heroine's Journey traces stages of separation from internalised patriarchal norms, descent into the unconscious, confrontation with the shadow, reconciliation of masculine and feminine aspects of self, and eventual return with embodied wisdom. Whereas Campbell's model emphasises conquest and external achievement, Murdock centres healing, relational restoration, and integration more in line with an inner development approach.

However, contrary to what the name implies, the Heroine's Journey is not limited to women. Rather, it offers a developmental metaphor relevant to individuals of all genders who have been socialised within cultures privileging patriarchal values, dominance, productivity, and external validation. In sustainability contexts, the "call to adventure" may manifest as an awakening to the environmental crisis. The descent involves questioning inherited assumptions and confronting complicity in unsustainable behaviours and systems. The return phase parallels sustainability leadership grounded in empathy, collaboration, and stewardship rather than

control. The Heroine's Journey thus symbolises the movement from disconnection toward connection and more significantly ecological and relational integration.

### 2.3. Archetypes, the Collective Unconscious, and the Mother Earth Symbol

Archetypal psychology provides a deeper psychological foundation for this transformative framing. The collective unconscious is described as a shared psychic substratum composed of universal archetypes that structure symbolic meaning across cultures (Jung, 1959/1980). Archetypes manifest in myths, dreams, and cultural narratives, shaping identity, behaviour and perception.

Among the most enduring is the Mother archetype, frequently expressed as the Earth Mother, symbolising nourishment, fertility, containment, and life-giving power. Ecofeminist scholars such as Merchant (1980) and Plumwood (2002) argue that symbolic associations between women and Earth can influence environmental ethics and leadership paradigms. While care must be taken to avoid essentialising women's connection to nature, such symbolic frameworks propose that sustainability is not purely technical but perhaps a deeply relational and cultural calling.

Research on environmental identity further supports this psychological dimension, demonstrating that individuals who integrate nature into their self-concept exhibit stronger pro-environmental attitudes and behaviours (Hinds & Sparks, 2008). Sustainability, therefore, can be understood not only as a policy challenge but also as an archetypal and identity-based call emerging from shared symbolic and cultural structures.

### 2.4. The Innate Human - Nature Connection

Complementing archetypal theory, empirical research further supports the proposition that humans possess an inherent affinity for the natural world. Wilson (1984) advances the biophilia hypothesis, proposing that the human inclination to affiliate with life and living systems is not merely cultural but rooted in our evolutionary history. From this perspective, connection to nature reflects a biologically need, or an embedded tendency shaped by survival and adaptation.

Subsequent empirical studies build on this foundation, demonstrating that immersion in natural environments enhances psychological wellbeing, strengthens ecological identity, and increases the likelihood of pro-environmental attitudes and behaviours (Hinds & Sparks, 2008; Kellert & Wilson, 1995). Recent cross-cultural research confirms the universality and measurability of environmental identity, showing that individuals across diverse contexts exhibit consistent patterns of psychological connection to nature (Clayton et al., 2021). These findings suggest that human–nature connection operates not only at a symbolic or philosophical level but also at a measurable psychological and behavioural level.

Reconnection with nature can therefore be understood as both a return to an archetypal pattern and a remembering of an evolutionarily grounded relational capacity, one with significant implications for sustainability education and leadership development. Nature-based experiences also foster reflective capacity, emotional regulation, and perspective-taking, competencies aligned with the IDG dimensions of Being and Relating. By slowing cognitive pace and heightening sensory awareness, wilderness settings create conditions conducive to transformative learning (Mezirow, 2000). Indigenous scholarship similarly conceptualises

sustainability as a reciprocal relationship rather than resource management (Kimmerer, 2013), emphasising relational balance and interdependence. Within the Heroine's Journey framework, reconnection with nature becomes both symbolic and experiential: the natural world functions as a mirror, teacher, and container for integration. Leadership emerging from this reconnection is shaped not only by rational systems analysis but also by embodied, relational awareness.

### 2.5. Consciousness Development and Sustainability Leadership

Adult developmental theory provides an important bridge between archetypal narrative and sustainability leadership. Drawing on Robert Kegan's (1982) constructive-developmental theory, meaning-making evolves through qualitatively distinct stages. The "socialised mind" is shaped primarily by external norms and authorities, internalising prevailing expectations. The "self-authoring mind" moves beyond this dependence by constructing its own internal value system and identity. At a more complex level, the "self-transforming mind" is capable of holding multiple systems in tension, reflecting on its own assumptions, and recognising deep interdependence across perspectives and contexts. Movement toward later developmental stages corresponds with increased reflexivity, systems awareness, and ecological responsibility (Boiral et al., 2014; Sterling, 2011; Wamsler, 2023). The destabilisation and reintegration processes described in the Heroine's Journey parallel this developmental progression: descent into the unconscious reflects the limits of externally defined identity, while integration and return signify more complex, self-authored, and potentially self-transforming consciousness.

These theoretical strands converge on a central proposition, which is that sustainability transformation requires shifts in identity, perception, and meaning-making. The wilderness-based intervention examined in this study is therefore conceptualised as a structured developmental container designed to cultivate IDG-aligned capacities. By integrating archetypal narrative, nature immersion, and reflective practice, it seeks to facilitate the inner transformations that enable coherent and sustained outer action.

## 3. Methodology

### 3.1. Research Design

This study employed a qualitative interpretivist case study design (Creswell, 2013) to explore participant lived experiences of a structured wilderness intervention framed by the Hero's and Heroine's Journey. The study focused on meaning-making, identity shifts, and developmental processes rather than measurable behavioural outputs, aligning with interpretivist epistemology. A case study approach was deemed appropriate as the research sought to investigate a bounded intervention within its context and to generate in-depth insight into processes of inner development aligned with the IDG. Case study methodology is specifically suited to exploring contemporary phenomena in their natural settings and providing rich, multifaceted understanding of complex issues (Crowe et al., 2011). It is characterised as an empirical inquiry that examines a phenomenon within its real-life context, particularly when boundaries between the phenomenon and context are integral to understanding the case (Yin, 2018).

### 3.2. Sample Description

This case study engaged 16 undergraduate university students and two learning facilitators from a higher education institution. Of the 16 participants, 10 identified as female and 6 as male. The gender distribution is relevant, as part of the analysis explored how female participants engaged specifically with the Heroine's Journey framework and gendered leadership norms. However, the intervention itself was not gender-segregated; all participants undertook the same activities. Two trained facilitators with backgrounds in sustainability education, coaching, and ecological literacy guided the experience.

The program was designed as a lived enactment of the Hero and Heroine's Journey, with the pedagogical aim of fostering inner-to-outer transformation in relation to a real-world sustainability challenge. The participants were introduced at the outset to an actual conservation crisis involving local wildlife and land-use pressures, forming the backdrop for the week-long experience. This "call to adventure" functioned both literally and metaphorically inviting students into a journey of personal, ecological, and ethical confrontation.

### 3.3. Structure and Context of the Intervention

The wilderness-based intervention was designed as a six-day experiential program in a remote camp setting with minimal digital connectivity, structured to foster inner development aligned with the Inner Development Guide. Participants spent approximately 8–10 hours per day immersed in nature through guided walks, solo reflection, ecological observation, group dialogue, and structured sensory awareness practices inspired by the principles of forest-bathing (shinrin-yoku) as well as wilderness mindfulness. The program followed a three-phase structure corresponding to the Hero's and Heroine's Journey: Departure, Initiation, and Return.

#### *3.3.1. Departure (Days 1 – 2)*

The first phase involved physically leaving the familiar campus and home environment and entering a remote wilderness setting, symbolically stepping out of comfort zones and into the unknown. Activities included orientation to the conservation context, introduction to the Hero's and Heroine's Journey frameworks, guided nature immersion walks, and sensory awareness exercises focusing on mindful observation, breath awareness, and silent walking. This phase provided the cognitive and emotional space necessary for reflection, representing a literal and metaphorical departure from comfort zones.

#### *3.3.2. Initiation (Days 3 – 4)*

The initiation phase centred on descent, confrontation, and reflection, offering participants opportunities to engage deeply with their inner worlds. Daily activities included 1–2 hour solo reflection periods in designated natural settings, guided journaling prompts addressing identity, leadership, ecological responsibility, and inner obstacles, group storytelling circles, and dialogues exploring shadow work and internalised leadership norms. Participants also observed wildlife behaviour, including matriarchal elephant herds or hyena clans, reflecting on parallels between ecological systems and their own internal dynamics.

*3.3.3. Return (Days 5 – 6)*

The final phase emphasised integration and outward commitment. Activities included structured dialogue on translating personal insight into action, articulation of sustainability leadership commitments, peer witnessing exercises, and a culminating group reflection circle. Participants reflected on how to bring their inner transformation into tangible contributions within their academic, community, and professional contexts, completing the narrative arc of the Hero/Heroine's Journey by reintegrating learning and insight into real-world action.

### 3.4. Conservation Context

The intervention was anchored in a real-world ecological challenge rooted in human–wildlife conflict and land-use fragmentation that has created tensions between local communities and wildlife. This ecological context functioned as the narrative "Call to Adventure," grounding participants' experiences in an authentic sustainability dilemma rather than a hypothetical scenario.

### 3.5. Data Collection

Multiple qualitative methods were employed to capture participants' experiences comprehensively. Participant observation and field notes documented behaviours, interactions, and group dynamics throughout the intervention, aligning with established case study methodology for exploring phenomena in real-life contexts (Yin, 2018; Stake, 1995). Reflective group conversations during structured debriefs and closing circles provided opportunities for participants to articulate insights and co-construct meaning, consistent with participatory and experiential research approaches (Reason & Bradbury, 2008). Individual coaching conversations offered confidential spaces for deeper reflection on personal challenges and transformations, complementing group-level data (Patton, 2015). Participants also maintained personal journals, of which some excerpts were voluntarily shared for research purposes. The observational notes, group reflections, coaching conversations, and journals, provided rich, triangulated data on inner-to-outer development and transformation processes.

### 3.6. Data Analysis

Data were analysed using abductive thematic analysis, an approach that iteratively moved between the empirical data and the Inner Development Guide. This method builds on the six-phase thematic analysis by Braun and Clarke (2006) while incorporating abductive reasoning, allowing researchers to be sensitised by the IDG dimensions without imposing them rigidly. In practice, coding was guided by the IDG dimensions Being, Thinking, Relating, Collaborating, Acting, but remained open to emergent patterns and insights not captured by the guide.

Abductive analysis enables researchers to interpret unexpected patterns and generate novel explanations that bridge empirical observations with theoretical concepts (Thompson, 2022; Timmermans & Tavory, 2012). This iterative interplay between data and theory supports nuanced understanding of how participants experiences of inner transformation align with, extend, or challenge the IDG dimensions, making it particularly suitable for studying complex processes such as sustainability leadership development and the Hero/Heroine's Journey.

### 3.7. Trustworthiness and Ethical Considerations

To ensure credibility and trustworthiness, multiple strategies were employed throughout the study. Triangulation was achieved by drawing on data from facilitator field notes, participant journals, and group reflection discussions, providing a comprehensive and corroborated perspective on experiences (Carter, 2014). Participants were also invited to clarify, expand, or reflect on their statements during the closing circle, allowing for member checking and enhancing interpretive accuracy. In addition, the lead researcher maintained reflexive journals to document evolving assumptions, decisions, and observations, supporting transparency and reflexivity in data analysis. All participants identities have been anonymised to protect confidentiality and privacy.

## 4. Findings

The data collected from student journals, facilitator observations, and group reflections reveal the profound transformation participants experienced during the six-day wilderness intervention. The immersive, nature-based setting, combined with engagement in a real-world conservation challenge, created a powerful space for both introspection and outward commitment to sustainability leadership. Analysis of the data, interpreted through the lens of the Inner Development Guide, highlighted three key dimensions of change: an inner transformation reflected in the IDG Being dimension, encompassing identity, awareness, and reconnection; an outer, behavioural transformation captured by the IDG Acting dimension, involving agency, commitment, and leadership intention; and a relational dimension, corresponding to the Relating dimension, which integrates aspects of outer change through inner development in the form of collective meaning-making and collaborative capacity.

### 4.1. Being: Identity, Awareness, and Reconnection

Participants consistently described a shift from cognitive understanding of sustainability toward embodied awareness and emotional connection. Time spent in solitude and sensory immersion in nature was central to this inner transformation. One participant reflected:

> *The solitude and awesome nature that God has created has been a magic experience with life put on one side and to recharge our souls, to normalise and re-establish our vision of the importance of life.* (Participant 1)

Others highlighted the restorative qualities of the environment and the welcoming, immersive nature of the wilderness setting:

> *I felt at home from the first day... the central tree is majestic, the observation of the animals throughout the day and experience is different from others, we observed tracks and were informed about animals. The hosts transmit their passion to you instantly*. (Participant 7)

> *A place where nature, tranquillity, and a warm welcome meet, a rejuvenating experience...* (Participant 15)

Participants also noted the value of slowing down and tuning into sensory awareness:

> *We were encouraged to slow down and tune into feeling, seeing, smelling, and sensing the biodiverse surroundings, which brought a greater appreciation for the natural*

> *environment, the interconnectedness of life, and the responsibility we have*. (Participant 12)

These experiences illustrate a movement from external busyness toward inner recalibration, aligning with the IDG Being dimension particularly presence, self-awareness, and embodied understanding. Many participants described a re-conceptualisation of their relationship to nature:

> *Before this week, sustainability was something I studied. Now it feels personal. I feel part of it, not separate from it*. (Participant 6)

*4.1.1. Gendered Reflections and the Heroine's Journey*

Female participants frequently reflected on how observing matriarchal animal societies disrupted internalised leadership norms. One participant shared:

> *Watching the elephant herd, seeing how the matriarch leads without aggression but with calm authority, made me question why I thought leadership had to be loud or dominant*. (Participant 9)

Another reflected:

> *I realised I have been trying to prove myself through achievement and control. Seeing animals operate cooperatively showed me strength can look different*. (Participant 3)

These reflections illustrate the dismantling of masculine-coded leadership expectations and the integration of relational and intuitive capacities, resonating with the inward, integrative arc of the Heroine's Journey (Murdock, 1990). Male participants also engaged with this theme:

> *I noticed I've been disconnected from emotions in leadership. Being here made me see that not being the loudest in a room is not weakness*. (Participant 11)

This suggests the Heroine's Journey framework can support developmental growth across genders by fostering integration rather than enforcing binaries.

### 4.2. Acting: Agency, Commitment, and Leadership Intention

Inner transformation was accompanied by articulated commitments to action. Participants reported a renewed willingness to engage in sustainability initiatives, reflecting the final stage of the Hero/Heroine's Journey which is returning to the world with insight and purpose. One student exemplified this:

> *After the trip, I felt reconnected and passionate about local conservation again. I began fundraising for a community initiative*. (Participant 4)

This demonstrates how the internal work done during the journey sparked external agency and leadership aligned with sustainability values. Other students expressed commitments to sharing their learning within their university networks, embedding sustainability principles into their studies and careers.

> *I proposed adding reflective practice into our sustainability student group meetings. We focus so much on projects, but not enough on mindset*. (Participant 8)

> *This experience clarified that I want my career to be rooted in impact-based conservation, not corporate sustainability alone*. (Participant 14)

Participants also reported increased confidence in voicing sustainability concerns:

> *I feel more confident challenging unsustainable practices now because it feels aligned with who I am*. (Participant 5)

These narratives demonstrate the translation of inner development into outward agency, aligning with the IDG Acting dimension, particularly courage, initiative, and alignment of action with values.

### 4.3. Relating: Collective Meaning-Making and Collaborative Capacity

The small group size and program structure facilitated relational growth. Participants emphasised the value of storytelling circles, peer witnessing exercises, and group reflections in fostering trust, empathy, and authentic connection:

> *Listening to others share openly made me realise we all carry similar doubts. It created trust*. (Participant 10)

> *The group reflections helped me articulate things I didn't know I was thinking*. (Participant 2)

Students reported breaking down personal and cultural barriers:

> *In normal university settings we stay in our comfort groups. Here, I connected with people I barely spoke to before.* (Participant 13)

These experiences illustrate collective meaning-making, aligning with the IDG Relating which provides the foundation for Collaborating, another IDG dimension. Transformation appeared amplified through relational safety and shared reflection, rather than occurring solely in solitude.

### 4.4. Integration of Physical and Development Stages

Across accounts, participant experiences mirrored both the physical and psychological stages of the Hero/Heroine's Journey. Departure from campus created cognitive and emotional space for reflection; the descent into the wilderness and solo reflection supported confrontation with internalised patterns; integration phases facilitated synthesis of leadership identity and ecological responsibility; and the return phase prompted concrete commitments to action. The embodied enactment of these stages appears to have strengthened developmental impact compared to purely conceptual learning.

## 5. Discussion

The findings indicate that a nature-based, immersive field trip framed by the Hero's and Heroine's Journey provides a potent intervention for fostering inner-to-outer sustainability transformation among higher education students. The intervention facilitated shifts in identity, relational awareness, and ecological responsibility that extend beyond cognitive engagement alone, aligning closely with the IDG which emphasises self-awareness, empathy, systems thinking, and agency as critical for sustainable leadership (IDGs, 2023, 2025).

### 5.1. Living the Hero/Heroine's Journey: Embodiment and Transformation

Structured enactment of the Hero's and Heroine's Journey allowed participants to embody stages of departure, descent, and return in ways that traditional coursework rarely achieves. Engagement with a real-world conservation challenge anchored learning in lived experience, fostering perceptual shifts, increased emotional openness, and ethical commitment. These experiences support developmental theory (Kegan, 1982) and transformative learning (Mezirow, 2000).

Gender-specific reflections revealed that female participants, in particular, found the observation of matriarchal animal societies catalysed re-evaluation of internalised masculine leadership norms. Participants reported recognition that leadership can be relational, intuitive, cooperative, and empathetic, alongside traditional competencies. Male participants similarly reported enhanced awareness of relational and emotional dimensions in leadership, suggesting the Heroine's Journey can serve as a developmentally integrative model across genders (Murdock, 1990; Campbell, 1949).

### 5.2. The Role of Nature and Archetypes

Immersion in nature activated archetypal experiences and deepened the participant's sense of connection to the natural world, reflecting Jung's (1964) collective unconscious. Nature functioned as a container and mirror for reflection, facilitating understanding of interconnectedness, ecological responsibility, and care. These findings align with biophilia theory (Wilson, 1984) and suggest that sustainability transformation is not only cognitive but also emotional, relational, and spiritual. Such experiences reinforce the IDG dimensions of Being and Relating, particularly self-awareness, empathy, and connectedness to ecological systems.

### 5.3. Embodied Transformative Learning: From Inner Development to Outer Action

Participants' inner transformation translated into tangible behavioural intentions and actions, including initiating conservation efforts, integrating reflective practices into sustainability groups, clarifying career pathways toward environmental stewardship, and expressing increased willingness to challenge unsustainable practices. These outcomes demonstrate how personal insight can drive societal engagement, aligning with the IDG Acting dimension.

The physical and psychological enactment of Departure, reflective Descent, and Reintegration enabled students to experience sustainability as lived practice rather than abstract theory. This embodied approach fostered identity reconstruction, heightened systems awareness, and reflexivity, supporting development in the IDG dimensions of Being, Thinking, as well as Collaborating. Collaborative reflection, peer dialogue, and structured group exercises reinforced these outcomes, highlighting the critical role of relational support in translating inner development into concrete action.

The wilderness setting functioned as a liminal space, disrupting habitual cognitive and social patterns and creating conditions for developmental shifts. These findings align with experiential sustainability education literature, which emphasises immersive, reflective, and relational learning as central to cultivating sustainable leadership capacities (Sterling, 2011; Giesenbauer & Müller-Christ, 2020).

### 5.4. Gender, Integration, and Leadership Development

The intervention enabled integration of relational, intuitive, and agentic capacities into leadership identity. Female participants particularly highlighted how observing cooperative matriarchal animal systems prompted reflection on internalised masculine-coded leadership norms. These reflections suggest that the Heroine's Journey provides a framework for integrating relational and agentic capacities across genders. The findings indicate that leadership development in sustainability contexts benefits from fostering empathy, collaboration, and systems thinking alongside rational decision-making.

## 6. Strengths and Limitation of the Study

This study includes the integration of multiple theoretical frameworks (IDG, archetypal psychology, transformative learning, developmental theory), rich qualitative data from journals, observations, and group reflections, reflexive analysis, and clear articulation of analytic procedures. The embodied intervention directly links theory to practice, supporting credible insights into inner-to-outer sustainability transformation.

### 6.1. Limitations

Limitations include the small sample size (n = 16), single institutional and geographical context, short-term data collection without longitudinal follow-up, potential facilitator-researcher bias, and reliance on observation and self-reported outcomes. Archetypal frameworks may also be culturally specific, and the Heroine's Journey may not resonate equally in non-Western contexts, suggesting the need for context-sensitive narrative approaches.

### 6.2. Generalisability and Transferability

The study contributes through analytic generalisation (Yin, 2018), offering a theoretically grounded model potentially transferable to other higher education contexts, particularly sustainability-focused programmes, leadership initiatives, and IDG-aligned pedagogical innovation. Replication in larger, interdisciplinary cohorts and diverse cultural contexts would strengthen external validity.

## 7. Recommendations

The recommendations outlined below are grounded in emergent themes from participant narratives, observed alignment with the IDG capacities, and established research on experiential and transformative learning (Mezirow, 2000; Kegan, 1982; IDG, 2023). Institutions implementing similar interventions should ensure rigorous design, trained facilitation, ethical oversight, and evaluation frameworks capable of capturing developmental outcomes beyond self-report.

### 7.1. Embed Experiential Wilderness Field Trips

Programs should design multi-day immersive experiences centred on authentic conservation challenges, allowing students to physically and psychologically enact the stages of the Hero/Heroine's Journey. Structured phases of departure, initiation, and return provide a liminal environment for reflection and engagement. Evidence from this study suggests that such embodied experiences foster shifts in self-awareness, systems thinking, and ethical reflection,

supporting the IDG dimensions of Being and Thinking. Experiential learning scholarship further affirms that immersion in real-world contexts catalyses deeper cognitive and emotional development than classroom-based instruction alone (Sterling, 2011; Giesenbauer & Müller-Christ, 2020).

### 7.2. Integrate Reflective Practices and Journaling

Daily introspection, guided journaling, storytelling circles, and reflective prompts are essential to internalise lessons and support psychological transformation. Linking reflections explicitly to sustainability challenges and leadership development aligns with IDG capacities in Thinking and mirrors established transformative learning practices (Mezirow, 2000). Structured reflection encourages students to translate observed ecological interdependence into personal values, enhancing inner-to-outer sustainability alignment.

### 7.3. Highlight Gendered and Integrative Dimensions of Leadership

Facilitators should support conscious exploration of feminine and masculine leadership qualities, drawing on examples from matriarchal animal systems and archetypal frameworks. This approach encourages all participants to integrate relational, intuitive, and agentic capacities into their leadership identity, aligning with IDG Relating and Collaborating dimensions. Developmental theory suggests that dismantling internalised normative assumptions about leadership enables more complex meaning-making and integrative capacities (Kegan, 1982).

### 7.4. Support Post-Trip Action Projects

Students should be guided to translate inner transformation into tangible sustainability initiatives, such as community conservation efforts, peer-led workshops, or curriculum-based interventions. These activities reinforce IDG Acting capacities, including courage, initiative, and responsibility, and provide evidence of real-world behavioural application of inner development gains. Research on sustainability leadership underscores the importance of linking reflection with concrete action to sustain engagement and impact (Hinds & Sparks, 2008; Kellert & Wilson, 1995).

### 7.5. Train Educators in Archetypal, Developmental, and Sustainability Frameworks

Educators should be equipped with knowledge of Hero/Heroine Journey frameworks, Jungian archetypes, constructive-developmental theory (Kegan, 1982), and the Inner Development Guide. This ensures that interventions are delivered with theoretical fidelity, developmental insight, and ethical awareness. Training also enhances educators ability to facilitate and guide participants through both inner reflection and outer application, a key feature of transformative learning.

### 7.6. Incorporate Relational Learning and Peer Support Structures

Small group reflection, storytelling, and peer witnessing should be embedded as core program components. Relational safety fosters collective meaning-making and amplifies the transformative potential of wilderness experiences, aligning with IDG Relating and Collaborating capacities. Literature on experiential learning highlights the critical role of social

support and dialogue in consolidating psychological and behavioural change (Mezirow, 2000; Hinds & Sparks, 2008).

### 7.7. Strengthen Research Integration and Evaluation

Future implementations should incorporate structured evaluation frameworks, including pre- and post-intervention assessments of inner capacities (self-awareness, empathy, systems thinking), observational coding of engagement in individual and group exercises, and longitudinal tracking of behavioural outcomes. This ensures that recommendations are not only theoretically grounded but also evidence-based and transferable to other higher education contexts (Yin, 2018; IDG, 2023, 2025).

## 8. Conclusion

This study demonstrates that immersive, nature-based interventions framed through the Hero's and Heroine's Journey can catalyse profound inner-to-outer transformation in higher education students, providing a practical model for sustainability leadership development. By enacting the stages of Departure, Descent, Integration, and Return, participants engaged physically, psychologically, and emotionally with both personal and ecological dimensions of change, moving beyond cognitive learning to embodied awareness and ethical reflection.

The intervention fostered inner development aligned with the IDG dimensions such as enhanced presence, self-awareness, and emotional regulation (Being); systems thinking and reflexivity (Thinking); empathy and relational intelligence (Relating and Collaborating); and initiative and engagement in sustainability-oriented action (Acting). Female participants, in particular, reported that engagement with matriarchal animal societies supported re-evaluation of internalised leadership norms and the integration of relational, intuitive capacities alongside agentic traits. Observed and self-reported outcomes included reflective insight, collaboration, leadership initiatives, advocacy, and alignment of personal values with action.

### 8.1. Reflexivity and Researcher Positionality

As facilitator-researcher, I acknowledge that my attunement to systems thinking, ecological literacy, and feminist psychology shaped both intervention design and data interpretation. Recognising this subjectivity was essential for ethical reflexivity and to honour the emergent, relational nature of the learning process.

### 8.2. Final Reflections

The study highlights that sustainability leadership development must extend beyond knowledge transfer to foster embodied, relational, and ethical growth. The Heroine's Journey serves as both roadmap and mirror, guiding students to engage deeply with their inner capacities and translate insight into purposeful action. By combining immersive wilderness experiences, structured reflection, and guided enactment of developmental stages, universities can cultivate leaders equipped to steward communities, ecosystems, and societies with wisdom, empathy, and courage which are qualities essential for advancing sustainable futures in Southern Africa and beyond.

## References

Baek, E. C., & Parkinson, C. (2022). Shared understanding and social connection: Integrating approaches from social psychology, social network analysis, and neuroscience. Social and Personality Psychology Compass, 16(11), e12710. https://doi.org/10.1111/spc3.12710

Boiral, O., Henri, J.-F., & Talbot, D. (2014). Modeling the impact of leadership style on organizational environmental performance. *Journal of Business Ethics*, *121*(4), 443–459. https://doi.org/10.1007/s10551-013-1721-5

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Campbell, J. (1949). *The hero with a thousand faces*. Princeton University Press.

Carter, N. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, *41*(5), 545–547. https://doi.org/10.1188/14.ONF.545-547

Clayton, S., Czellar, S., Nartova-Bochaver, S., Skibins, J. C., Salazar, G., Tseng, Y.-C., … Monge-Rodriguez, F. S. (2021). Cross-cultural validation of a revised environmental identity scale. *Sustainability*, *13*(4), 2387. https://doi.org/10.3390/su13042387

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE Publications.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*, Article 100. https://doi.org/10.1186/1471-2288-11-100

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573–598. https://doi.org/10.1037/0033-295X.109.3.573

Giesenbauer, B., & Müller-Christ, G. (2020). University 4.0: Promoting the transformation of higher education institutions toward sustainable development. *Sustainability*, *12*(8), 3371. https://doi.org/10.3390/su12083371

Hinds, J., & Sparks, P. (2008). Engaging with the natural environment: The role of affective connection and identity. *Journal of Environmental Psychology*, *28*(2), 109–120. https://doi.org/10.1016/j.jenvp.2007.11.001

Inner Development Goals. (2023). *Inner Development Goals framework*. https://innerdevelopmentgoals.org/

Inner Development Goals. (2025). *Inner Development Guide revised*. Accessed 1 10 April 2026. https://innerdevelopmentgoals.org/guide/

Jung, C. G. (1980). *The archetypes and the collective unconscious* (R. F. C. Hull, Trans.). In H. Read, M. Fordham, G. Adler, & W. McGuire (Eds.), *Collected works of C. G. Jung* (Vol. 9, Part 1). Princeton University Press. (Original work published 1950)

Jung, C. G. (1964). *Man and his symbols*. Dell Publishing.

Kegan, R. (1982). *The evolving self: Problem and process in human development*. Harvard University Press.

Kellert, S. R., & Wilson, E. O. (1995). *The biophilia hypothesis*. Island Press.

Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teachings of plants*. Milkweed Editions.

Merchant, C. (1980). *The death of nature: Women, ecology, and the scientific revolution* (Rev. ed.). HarperOne.

Mezirow, J. (2000). Learning to think like an adult. In J. Mezirow (Ed.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 3–33). Jossey-Bass.

Murdock, M. (1990). *The heroine's journey: Woman's quest for wholeness*. Shambhala Publications.

Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE.

Plumwood, V. (2002). *Feminism and the mastery of nature*. Routledge.

Reason, P., & Bradbury, H. (Eds.). (2008). *The SAGE handbook of action research: Participative inquiry and practice* (2nd ed.). SAGE.

Rimanoczy, I., & Llamazares, A.M. (2021). Twelve principles to guide a long-overdue paradigm shift. *Journal of Management, Spirituality & Religion*, 18(6), 54-76. https://doi.org/10.51327/JKKI4753

Stake, R. E. (1995). *The art of case study research*. SAGE.

Sterling, S. (2011). Transformative learning and sustainability: Sketching the conceptual ground. *Learning and Teaching in Higher Education*, *(5)*, 17–33.

Thompson, J. (2022). A guide to abductive thematic analysis. *The Qualitative Report*, *27*(5), 1410–1421. https://doi.org/10.46743/2160-3715/2022.5340

Timmermans, S., & Tavory, I. (2012). Theory construction in qualitative research: From grounded theory to abductive analysis. *Sociological Theory*, *30*(3), 167–186. https://doi.org/10.1177/0735275112457914

Wamsler, C., Osberg, G., Osika, W., Herndersson, H., & Mundaca, L. (2021). Linking internal and external transformation for sustainability and climate action: Towards a new research and policy agenda. *Global Environmental Change*, *71*, Article 102373. https://doi.org/10.1016/j.gloenvcha.2021.102373

Wamsler, C. (2023). Mind the gap: The role of inner transformation in climate change response. *Global Environmental Change*, *80*, Article 102688. https://doi.org/10.1016/j.gloenvcha.2023.102688

Wamsler, C., Osberg, G., Janss, J., & Stephan, L. (2024). Revolutionising sustainability leadership and education: addressing the human dimension to support flourishing, culture and system transformation. *Climatic Change*, *177*(1), 4. https://doi.org/10.1007/s10584-023-03636-8

Wilson, E. O. (1984). *Biophilia*. Harvard University Press.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.

## Declaration Statements

### Conflict of Interest

The author reports no conflict of interest.

**Funding**
The author received no financial support for this article's research, authorship, and/or publication.

**Data Availability**
Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

**Ethical Statement**

The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement



## Corresponding Author

The corresponding author for this manuscript is Isabel Wolf-Gillespie who can be contacted by email via isabel@earthawareness.co.za .

https://doi.org/10.56611/idg.casebook.001.12

# CASEBOOK OF IDG IMPLEMENTING INTO HIGHER EDUCATION

# Application of Inner Development Goals through Design Thinking in Entrepreneurship Education: A Case of the College of Interdisciplinary Studies at Zayed University, UAE

**Veronika Pereseina**

Zayed University, College of Interdisciplinary Studies, UAE
ORCID: 0000-0003-3003-815X

**Abstract**

Design thinking, a human-centred iterative problem-solving approach, applied in entrepreneurship, allows for creation with empathy and compassion, the qualities so often overlooked, but necessary for sustainable development. Investigating the importance of design thinking through the Inner Development Goals (IDGs) lens helps in understanding how real-world solutions for sustainable development can be co-created. This casebook presents the author's observations of students during three semesters of teaching the Fundamentals of Innovation and Entrepreneurship course at Zayed University (2023-2024). The application of IDGs through the design thinking methodology led to tangible outcomes in student performance, engagement and skills development. The focus on empathy and compassion deepened their understanding of global challenges, such as sustainability and mental health issues, while collaboration enhanced their problem-solving, convergence and communication skills. This educational strategy can not only enhance student engagement and develop key competencies but also foster a generation of socially conscious entrepreneurs who are prepared to address local and global challenges with creativity, responsibility, and a deep sense of empathy. This approach represents a meaningful step towards aligning higher education with the Sustainable Development Goals (SDGs). Practical implications: Implementing design thinking in entrepreneurship education and an even more integrated focus on IDGs can help solve the world's wicked problems and co-create solutions for sustainable development.

***Keywords/key phrases*:** design thinking, inner development goals, empathy, collaboration, sustainable development, entrepreneurship education

https://doi.org/10.56611/idg.casebook.001.12

## 1. Introduction

In the times marked by growing complexity and the transgression of planetary boundaries – threatening both ecological stability and our quality of life, perhaps even survival (Richardson et al., 2023; Rockstrom et al., 2009) – there also lies a profound opportunity to reimagine and redesign our systems, structures and ways of living. Within this context, entrepreneurship education emerges as a pathway for fostering self-empowerment and innovation, enabling individuals to contribute meaningfully to a more sustainable and harmonious future. Addressing latter issues require a more integrated approach for entrepreneurship education – not only educating students for a successful business angle, but a recognised value of human-centred strategy such as design thinking (Brown, 2009; Buchanan, 1992) and cultivation of soft skills such as empathy, compassion and collaboration – skills also emphasised by Inner Development Goals (IDGs) framework (IDGs, 2025) – as essential components preparing conscious entrepreneurs for a sustainable future (Engel & Janssen, 2024).

This casebook presents a case study from Zayed University's College of Interdisciplinary Studies (ZU CIS), an innovative academic unit that addresses today's wicked problems through interdisciplinary thinking and problem-based learning. As CIS Dean notes, the college 'seeks to nurture agile and dynamic minds, lateral and creative thinkers who have the transferable skills and know-how to thrive in the 21st-century workforce.' Within this context, the Fundamentals of Innovation and Entrepreneurship course serves as a pedagogical laboratory, experimenting with the practical integration of IDGs and design thinking to help students create solutions grounded in real-world problems.

Given the importance of soft skills (Rieckmann, 2018; Val et al., 2017), which are thoroughly presented by the IDGs framework, the application of empathy and compassion remains controversial. Focused on a human-centred approach, it requires a reflexive stance and community research to ground solutions in real-world complexity. However, when critically applied, empathy and compassion embedded in design thinking can deepen understanding of social and environmental issues, improve problem-framing skills and inspire entrepreneurial solutions grounded in universal values – an emerging approach in education for sustainable development (Carella et al., 2023; UNESCO, 2020) - Figure 1.

## 2. Background

### 2.1. Education for Sustainable Development and Entrepreneurship Education – Overview

As the world faces intensifying planetary emergencies, social fragmentation, and economic uncertainty, education systems are increasingly called upon to cultivate not just knowledge but transformative competencies and skills that empower individuals and organisations to drive sustainable change (Rockstrom et al., 2009; Torres-Sanchez, 2024; UNESCO, 2020). Within this context, entrepreneurship education proves to support a promising approach – especially when aligned with the principles of Education for Sustainable Development (ESD) – to nurture innovation, self-empowerment and social responsibility - preparing students for sustainable business practices, aligning social, ecological and economic goals (Iglesias-Sanchez et al., 2019; Rosário & Dias, 2022).

https://doi.org/10.56611/idg.casebook.001.12

FIGURE 1. EDUCATION FOR SUSTAINABLE DEVELOPMENT (UNESCO, 2020)


Source: UNESCO, 2020

Preparing students for such practices requires an innovative approach to entrepreneurship education – the development of transdisciplinary thinking (Torres-Sanchez, 2024), the ability to build strategic partnerships with various stakeholders (Baltador & Grecu, 2023), a sustainability mindset (Kassel et al., 2016) and inner development skills (IDGs, 2025). Transdisciplinary thinking is emphasised in education for sustainable development as a background for recognising the complexity of today's problems while addressing the UN Sustainable Development Goals (SDGs). It can also support students' development of critical thinking, systemic awareness, collaboration, and long-term impact (UNESCO, 2020). Creative intelligence or creativity skills, risk-taking, problem-solving and collaboration – another set of necessary entrepreneurial skills addressing wicked problems (Buchanan, 1992; Egan et al., 2017; Rieckmann, 2018; Val et al., 2017). Social and sustainable entrepreneurship education, in particular, has gained traction as a form of entrepreneurship that specifically centres around human and planetary well-being (Baltador & Grecu, 2023).

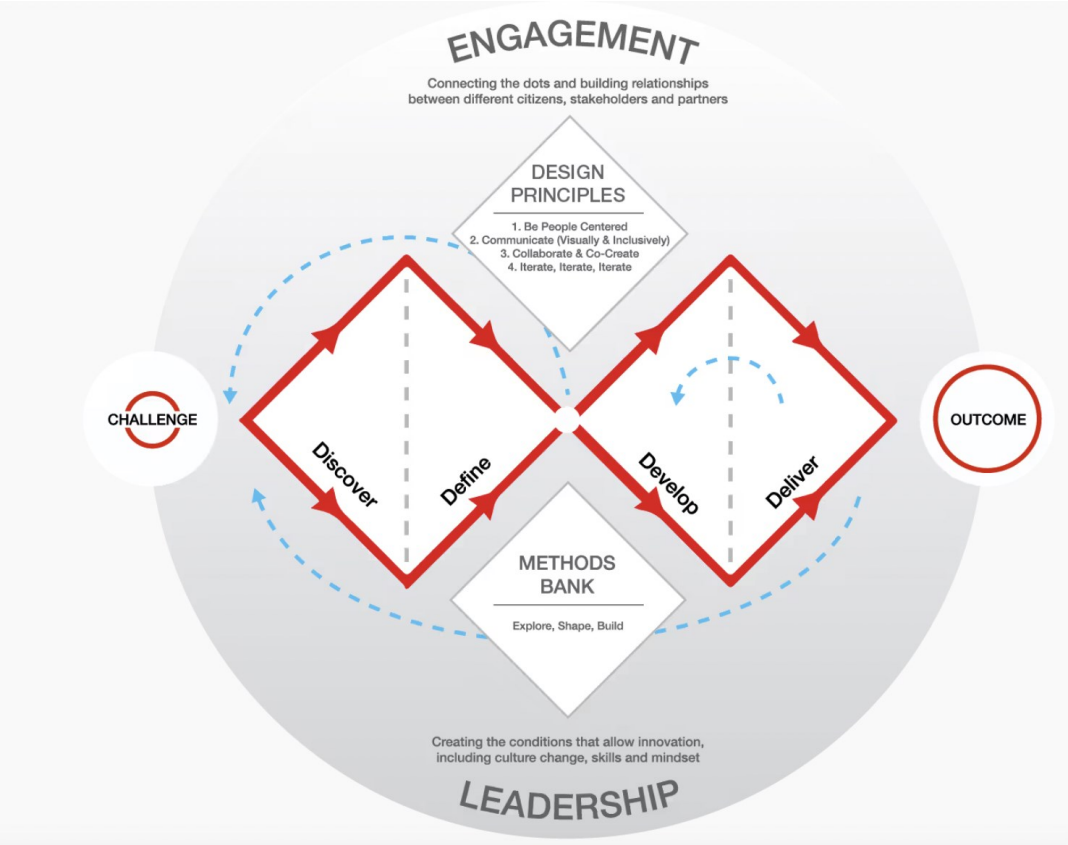
One of the most significant outcomes of this educational shift is students' self-empowerment – a capacity that supports students' self-efficacy and confidence in becoming agents of transformation. Empowerment through sustainable entrepreneurship education supports the sense of purpose and responsibility, especially when students are encouraged to work on challenges that resonate with their identities, communities and values (van der Wal-Maris et al., 2025). Another significant dimension is largely recognised in women entrepreneurship - care-oriented perspective, community orientation and emotional intelligence in relational leadership - as part of the 'soft skills' concept (Jennings & Brush, 2013; Marin-Zapata et al., 2022). These skills are known to contribute to sustainable innovation and regenerative systems, dismantling the extractive logic of dominant economic paradigms and suggesting a future-oriented entrepreneurship and achievement of SDGs (Costa et al., 2025; Engel & Janssen, 2024; Orser & Elliott, 2020).

### 2.2. Design Thinking in Entrepreneurship Education

Design thinking has received much attention in entrepreneurship pedagogy, reflecting enhanced student satisfaction and diverse learning outcomes, that incorporate not only practical business skills like innovation, communication and rapid experimentation but also deep understanding of user needs, creative confidence, critical thinking and resilience (Huq & Gilbert, 2017; Liedtka, 2015; Rauth et al., 2010; Val et al., 2017). A solution-oriented methodology rooted in design research, architecture and planning, its application in other disciplines has become widely relevant. It offers a human-centred approach, creative reframing, learning by doing, visualisation, and acceptance of 'failure' through a non-linear, iterative process of divergence and convergence. It includes five core stages: empathise, define, ideate, prototype and test – offering an entrepreneurship method, with a toolkit of skills and techniques, creativity and iteration (Carella et al., 2023; Linton & Klinton, 2019; Seelig, 2012).

The process begins with empathy – a critical starting point that encourages students to step into the shoes of those affected by a problem (Carella et al., 2023). This step is key in design thinking, requiring both cognitive and emotional skills to frame the right problem. Empathy is one of the Relating skills in IDGs (IDGs, 2025). Since the design thinking process is mostly non-linear but rather through modules, the steps can be rediscovered: identification of challenge/problem, interpretation of challenge/problem, ideation of solutions, prototyping of solutions, solution and future (presentation and pitching) in education or implementation in real world scenario (Interaction Design Foundation, 2016; Linton & Klinton, 2019; Seelig, 2012) – Figure 2. This approach allows students to frame problems systematically, explore multiple solution pathways and iterate based on real-world feedback via product interviews – nurturing a growth mindset and a tolerance for failure. Many of these skills are identified in IDGs (Figure 3): openness and a learning mindset in Being; sense-making, creativity, and critical thinking in Thinking; and communication and co-creation skills in Collaborating (IDGs, 2025). Furthermore, by involving users early and often, design thinking fosters a sense of ethical responsibility and inclusivity among aspiring entrepreneurs, which is particularly important in the context of sustainable development and education for sustainability, where stakeholder needs are more balanced (Kolko, 2015; Rieckmann, 2018; Shtaltovna et al., 2024).

FIGURE 2. DESIGN THINKING




Source: © Design Council, CC BY 4.0, 2016

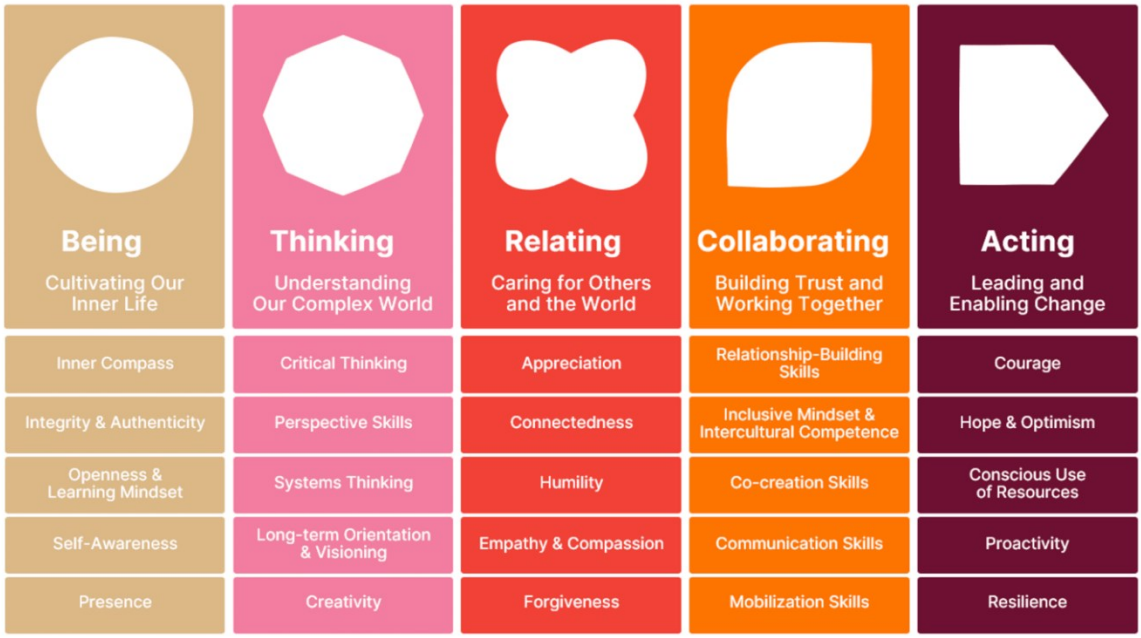
### 2.3. Inner Development Goals for Sustainable Development Goals

The root causes of environmental and socio-economic challenges facing humanity in the 21st century are arguably not solely financial, structural or technological (Ives et al., 2020). Even though sustainable development offers a high return, after 10 years, the world, on average, is far off track in achieving the Sustainable Development Goals of the 2030 Agenda (Sachs et al., 2025). Launched in 2020, the Inner Development Goals framework addressed this potential gap by focusing on inner and relational factors to cultivate the individual and collective skills needed to accelerate sustainable transformation (Ankrah et al., 2023; Engel & Janssen, 2024; IDGs, 2025). Rooted in interdisciplinary research, with an open-source and universal approach by a coalition of educators, psychologists, sustainability experts, and systems thinkers, the IDGs provided an inner roadmap to support the SDGs, focusing on five key dimensions (Figure 3): being, thinking, relating, collaborating and acting (Ankrah et al., 2023).

While the IDGs framework covers 25 diverse skills/competencies/qualities divided into five main dimensions, it is a living organism that responds to changes and adaptations by the framework's research team, facilitating global co-creation of the guide (Ankrah et al., 2023; IDGs, 2025). Currently implemented by several major global organisations with more than 700 hubs across educational and research institutions, the guide aims to provide a simplified global language to catalyse inner transformation for collective change (IDGs, 2025). The five dimensions of the IDGs guide emphasise the development of consciousness, emotional

intelligence, and ethical leadership - qualities essential for navigating today's complex, uncertain world (IDGs, 2025; Wamsler, 2020). Embedding IDGs into education systems offers a practical response (Shtaltovna et al., 2024). When students develop empathy, compassion, collaborative skills, and self-awareness, they are more likely to generate inclusive, ethical, and resilient solutions to societal challenges (Rieckmann, 2018). In entrepreneurship education, this translates into purpose-driven innovation: students begin not with 'what can I sell?' but 'what matters, to whom, and why?' Applying it as a systems lens by educators and leaders in organisations and communities can support innovation, inner/outer capacity, and transformational competencies for achieving the SDGs (Ives et al., 2023; OECD, 2021).

FIGURE 3. INNER DEVELOPMENT GOALS




Source: Inner Development Goals, 2025

## 3. Methodology – Qualitative Case Study Approach

This casebook adopts a qualitative single case study design (Hamilton & Corbett-Whittier, 2012; Stockdale, 2003) to explore the application of the Inner Development Goals through Design Thinking in entrepreneurship education at the College of Interdisciplinary Studies, Zayed University, UAE. The case is bounded by the Fundamentals of Innovation and Entrepreneurship course delivered between 2021 and 2024 to approximately 2,500 students by teams of CIS instructors/educators. For in-depth analysis, a purposive sample of 100 students' interim and final project papers and reflective journals during the years 2023 and 2024 was examined. The data was analysed using a qualitative thematic coding approach, identifying recurring patterns related to the development of empathy, collaboration and entrepreneurial capacities. In-depth description supports transferability, while transparent coding procedures enhance dependability and confirmability (Braun & Clarke, 2021; Gioia et al., 2013; Tracy, 2020). The weekly course meetings, amongst practicalities and planning, addressed topics related to students' experiences and the themes of their final projects, triangulating the data. The following sections focus on the course introduction and final analysis of the results.

### 3.1. College of Interdisciplinary Studies (CIS) at Zayed University, UAE – Fundamentals of Innovation and Entrepreneurship Course

Since its establishment in 2021, CIS at Zayed University, UAE, with campuses in Dubai and Abu Dhabi, has set a high standard for innovation, an interdisciplinary approach, and the student learning experience. By applying a flipped classroom approach and a hybrid lecture format (both online and offline), industry projects, dedicated educators and career mentors, a focus on transferable skills, the college introduced several innovative programs to the region, grounding the first year BSc students in multiple transformational general education courses, including the Fundamentals of Innovation and Entrepreneurship course.

This case study explores the integration of IDGs, specifically empathy, compassion, and collaboration, via design thinking into the Fundamentals of Innovation and Entrepreneurship course at the College of Interdisciplinary Studies, Zayed University. The data for this casebook include insights from six sections of the course, taught over three semesters in 2023 and 2024, to approximately 100 students of different cohorts. The course adopts a design thinking framework to enhance students' skills in identifying and solving real-world problems while fostering a human-centred approach to entrepreneurship.

### 3.2. Course Structure and IDGs – A Case of Human-centred Design

The course Fundamentals of Innovation and Entrepreneurship is structured around design thinking modules, with several additional frameworks such as NABC, the Business Model Canvas, and lean startup methods, and the application of design thinking to student life and career. The first focal point of this section is the initial part of the course, with the first step in the design thinking – discovery of the challenge/problem or need finding, where empathy and compassion support the process of right problem identification. The second focal point of this section is the importance of collaboration skills, applied in several ways throughout the course.

#### *3.2.1. The Role of Empathy and Compassion in Need/Problem Identification*

The first step of the design thinking – the discovery of the problem – was introduced in the course through several sessions, and a crash workshop on design thinking methods, including practical examples of user need identification via need finding, the empathy map, and the journey map. The practical workshop was focused on each student's personal experience, explored during pairs interviews and through imitation of the whole design thinking process: problem identification, reframing, iterating, and prototyping with testing. The time, space, and instructions were given to each student to interview their fellow student about a personal question related to gift-giving. This experience involved active listening (while identifying core needs through several rounds of questions for deeper enquiry), empathy and compassion (while listening), and critical thinking skills (when creating an empathy map, drawing a journey map, and reframing the problem). The remaining steps were performed individually (iteration and prototype building), with feedback provided only during the testing phase, when the built gift proposal was presented to the fellow student.

The main course project was then designed as team/group work, the first step being students' interviews with their community members to identify real problems/needs. Building on the

individual experiences from the design crash workshop, the students were asked to interview several users to identify the need and to reframe and uncover the true problem of that user group, fostering an in-depth analysis approach. Empathy and compassion were important during such interviews, as finding the true need/problem requires an intangible skill: sensing pain points, filtering out artificial information, and asking the right questions to dig deeper, while documenting the process for further reframing and opportunity identification. These are parts of the design thinking process that require stronger emotional and cognitive intelligence.

*3.2.2. Collaboration as a Catalyst for Opportunity Identification and Solution Convergence*

The team-building activities, along with multi-stakeholder collaboration, played an important role throughout the course, including multiple sessions and activities such as assembling and motivating the team, distributing roles, planning the project timeline, brainstorming and building prototypes, and presenting/pitching the final product/service prototype. While students were assessed individually and in a group setting, the collaborative aspect of the course was emphasised as a reflection of developing communication and co-creation skills.

During the first step of the design thinking process, the students built on their individual interviews and reflections/analysis, collaboratively presenting the final developed point of view (POV) and how might we (HMW) question, preparing for the further stages of ideation and prototype building. During this step, the students were asked to present their final POVs and HMW questions in the group presentation, identifying the opportunities. Table 1 presents the identified initial problems/needs and the developed group POVs, along with HMW questions.

TABLE 1. FUNDAMENTALS OF INNOVATION AND ENTREPRENEURSHIP – EXAMPLES

| **Identified initial problems/opportunities** | **Developed POVs and HMW questions** |
|---|---|
| Problem: Legal communication is often complex, jargon-filled, and difficult to understand for non-lawyers. This can lead to frustration, anxiety, and a lack of trust between clients and lawyers.<br><br>Opportunity: There is a growing need for a solution that can simplify legal communication and make it more accessible to everyone. | POV: Legal professionals need a way to consistently nurture and maintain trust because trust is the foundational element in long-lasting client relationships, directly impacting client satisfaction and retention.<br>HMW: How might the law firm build a healthy relationship with clients? |
| Problem: Increase in Car Accidents in Abu Dhabi<br>Opportunity: Decrease in car accidents in Abu Dhabi. | POV: Abu Dhabi Traffic Police (users) need effective strategies and resources to curb the rising number of car accidents in the city (need) because they are committed to enhancing road safety, and the current problem demands a proactive approach (insight).<br>HMW: How might we develop a comprehensive strategy for a police officer, to effectively address the issue of increasing car accidents in Abu Dhabi? |
| Problem: Teenagers misconceive their normal daily mood fluctuations as mental illnesses.<br>Opportunity: Design educational and support systems that help teenagers | POV: Teenagers need a way to normalize the fluctuation of daily emotions because authentic well-being requires understanding and accepting emotional fluctuations.<br>HMW: How might we help teenagers better understand and normalize their daily emotional changes? |

| | |
|---|---|
| understand and navigate their emotional and psychological fluctuations healthily. | |
| Problem: Many consumers struggle to find eco-friendly and ethically made clothing options.<br>Opportunity: Help consumers find eco-friendly and ethically produced clothing | POV: Eco-conscious consumers need a way to find trusted sustainable brands because they are overwhelmed with uncertain information.<br>HMW: How might we increase awareness about the unethical practices and environmental harm associated with fast fashion while making sustainable alternatives more accessible and appealing? |
| Problem: Students struggle to cope with academic stress<br>Opportunity: Support students in coping with the academic stress | POV: Students need a way to better manage their time because they value managing several activities, but they find it difficult to handle all of them at once.<br>HMW: How might we help students improve their time management and other related skills so that their academic stress is reduced? |
| Problem: Students spending too much time on screens, affecting their well-being and productivity.<br>Opportunity: Create strategies and tools to help students manage their screen time effectively, promoting better mental health and increased productivity | POV: A university student, overwhelmed by distractions, needs a way to limit social media usage because it impacts her studies.<br>HMW: How might we help university students reduce their social media distractions during study time without compromising their connection with friends? |

Source: author's compilation, based on students' reports

### 3.3. Analysis and Post-implementation Insights

The reflections of students participating in the course showed growth, not only in entrepreneurial competencies but also in relational and collaborative intelligences. As students engaged with real-world challenges through a design-thinking lens, they developed and refined skills closely aligned with the IDGs and the Education for Sustainable Development (ESD) frameworks.

One of the most recurring insights concerned the challenge of integrating multiple ideas into a coherent and user-centred solution. As one team noted, "The most significant challenge we encountered was the convergence of multiple solutions into one cohesive idea...We had to ensure that our solution not only met the identified user needs but also provided a unique value proposition." Along with empathy and compassion, this process required multiple stakeholder perspectives, with many students relying on clear communication to reframe the problem and ideate their proposed solutions. Another team mentioned, "Integrating multiple solutions into one framework was our biggest issue. We overcame this difficulty by discussing our strategy in depth and using each team member's unique perspectives", showing a growing awareness of collaborative processes, co-creation skills and an inclusive mindset. Another group shared, "Throughout this project, we've learned the importance of collaboration and the power of diverse perspectives. By integrating the ideas of team members, we created a more robust solution that could potentially revolutionise road safety." Some students reported a shift from fragmented or passive group dynamics to co-creative teams: "We had started out as a very silent and discrete group, but over time, we had developed into a more collaborative and engaging team."

Several reflections revealed how entrepreneurial learning became a vehicle for self-empowerment, especially in the face of ambiguity and complexity. One group wrote, "As we

progress through the process, as a team, we have learned to have the courage to take the next step even when we do not feel ready." Others highlighted how the iterative nature of the project improved their problem-solving and strategic thinking, stating: "We enhanced our feedback skills, becoming more adaptable and focused on project improvement... This experience strengthened our confidence for future projects..."

Importantly, the students' projects also demonstrate a sense of purpose and responsibility. Most of the projects addressed sensitive issues related to students' health, road safety, and eco-consciousness, as well as other problems faced by communities, reflecting the need to co-create solutions with, rather than for, communities. One student remarked, "Through collaboration and determination, we've advanced our app from a mere idea to a promising business venture, poised to positively impact teenage emotional well-being worldwide." Another added, "This project addresses a current realistic problem in an engaging and culturally relevant way."

These reflections support the premise that integrating design thinking with IDGs-aligned educational practices does more than foster business skills - it creates a space where students become conscious innovators, capable of engaging with real-world challenges in empathic, collaborative, and strategic ways. As one student summarised: "Working together brought diverse perspectives, leading to innovative ideas we might not have developed alone."

By encouraging students to focus on the lived experiences of individuals and communities, the course, by design, enhanced their ability to recognise the nuanced dimensions of the challenges faced in both the university and broader societal contexts. This approach fostered a deeper understanding of the problems, shifting students' perspectives from solution-oriented thinking to problem-centred design, enabling a human-centred approach and enhancing relational and collaborative skills, including effective communication, teamwork, and conflict resolution. Moreover, the interdisciplinary nature of the course enabled students from various fields to bring diverse perspectives to their projects, fostering an environment of co-creation and shared responsibility. The emphasis on collaboration mirrored the increasing importance of partnerships in achieving entrepreneurial success while solving societal problems.

## 4. Conclusion

The Fundamentals of Innovation and Entrepreneurship course at Zayed University successfully integrates several IDGs - especially cognitive, relational, creativity and collaboration skills - through a design thinking approach. This casebook's aim is to clarify the importance of empathy and compassion along with collaboration for a more meaningful entrepreneurship education is visualised through students' project processes and reflections. By engaging in empathy-based interviews, active listening, and team-based problem-solving, students can develop a deeper emotional and cognitive connection to real-world issues. This human-centred method shifts their perspective from quick solutions to understanding the root causes of complex challenges in the communities around them (Ives et al., 2020, 2023). Ultimately, the course cultivates a creative mindset and prepares students to co-create meaningful solutions grounded in diverse perspectives and societal needs, as a part of future-oriented methodologies (Nordén, 2024). While integrating empathy and collaboration into entrepreneurship education offers meaningful benefits, it also presents certain challenges.

Without careful pedagogical design, empathy-based activities may remain superficial or reinforce existing assumptions rather than foster genuine understanding, while collaborative

work can lead to issues such as unequal participation or team conflict. In this course, these problems are addressed by team-building activities and faculty training in empathy-based workshops.

This casebook focused specifically on empathy and collaboration, as these important yet often overlooked dimensions provide innovative angles for developing more human-centred and socially responsive entrepreneurship education (Marin-Zapata et al., 2022; UNESCO, 2020). Future research could further test the application of empathy and collaboration for sustainable entrepreneurs and explore additional intersections between IDGs, design thinking, and entrepreneurship education, including areas such as creative confidence, learning from failure, and the development of a sustainability mindset, which are increasingly recognised as critical competencies for addressing complex societal challenges (Egan et al., 2017; Val et al., 2017; Rieckmann, 2018; Kassel et al., 2016). It could also expand the conclusions of this study by incorporating multiple institutions, longitudinal designs, and mixed-method approaches.

Implications for Research, Education, Practice, and Society. The casebook adds to the emerging scholarship on inner–outer transformation frameworks, encouraging comparative studies across cultures, pedagogical models, and institutional settings to assess the long-term impact of IDGs-applied education. The findings from this exploratory qualitative case study underscore the practical value of integrating IDGs into entrepreneurship education through design thinking, particularly in fostering socially and environmentally conscious innovators by developing inner qualities. This approach can be adopted by universities and professional training institutions to strengthen experiential and values-based learning. It can also support further integration of IDGs into faculty training and accreditation frameworks. For practitioners, this approach provides a replicable framework to cultivate empathy, collaboration, and purpose-driven problem-solving - core competencies of social entrepreneurship. As Baltador & Grecu (2023) emphasise, aligning entrepreneurship with social and environmental justice is critical in addressing today's complex societal challenges. The future of entrepreneurship can look very different (Pereseina, 2025). Policymakers and higher education leaders can use these insights to support curriculum reform that equips future entrepreneurs with the mindset and skills needed to drive inclusive, sustainable development across industries and communities, thereby supporting SDG 4 (Quality Education), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 17 (Partnerships for the Goals) – as in Figure 1.

Reflexivity. The author's reflexive stance is grounded in a rainbow of global experiences, academic inquiries, and personal transformations, which inform the research process without biasing it. With a background in sustainability and business studies and a commitment to understanding the root causes of global crises, the author brings both critical insight and practical engagement reflections into her current projects/teaching/research. While lived experiences and deep reflection shape the research perspective, any potential biases are balanced by an interdisciplinary approach, scientific rigour, an exploratory approach and triangulation through weekly meetings with fellow educators teaching the same course. This reflexive awareness reflects a commitment to universal values, continuous learning, and integrity, ensuring that the research remains both grounded and inclusive.

## References


Ankrah, D., Bristow, J., Hires, D., & Henriksson, J. A. (2023). Inner Development Goals: From inner growth to outer change. *Field Actions Science Reports*, *(Special Issue 25)*, 82–87.

Baltador, L. A., & Grecu, V. (2023). Developing sustainable entrepreneurs through social entrepreneurship education. *Studies in Business and Economics*, *18*(2), 23–34. https://doi.org/10.2478/sbe-2023-0023

Brown, T. (2009). *Change by design: How design thinking creates new alternatives for business and society*. Harvard Business Press.

Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE.

Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues*, *8*(2), 5–21. http://www.jstor.org/stable/1511637

Carella, G., Cautela, C., Melazzini, M., Pei, X., & Schmittinger, F. (2023). Design thinking for entrepreneurship: An explorative inquiry into its practical contributions. *The Design Journal*, *26*(1), 7–31. https://doi.org/10.1080/14606925.2022.2144565

Costa, M. F. B., & Cipolla, C. M. (2025). Critical soft skills for sustainability in higher education: A multi-phase qualitative study. *Sustainability*, *17*(2), 377. https://doi.org/10.3390/su17020377

Egan, A., Maguire, R., Christophers, L., & Rooney, B. (2017). Developing creativity in higher education for 21st century learners: A protocol for a scoping review. *International Journal of Educational Research*. https://doi.org/10.1016/j.ijer.2016.12.004

Engel, C., & Janssen, M. (2024). The inner development goals as an innovative approach to sustainable development: Conceptualisation, implementation, and evaluation of an experiential university seminar for holistic sustainability education. In *Engaging in prosocial behaviour for an inclusive society*. IntechOpen. https://doi.org/10.5772/intechopen.1006198

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Hamilton, L., & Corbett-Whittier, C. (2012). *Using case study in education research*. Sage Publications.

Huq, A., & Gilbert, D. (2017). All the world's a stage: Transforming entrepreneurship education through design thinking. *Education + Training*, *59*(2), 155–170. https://doi.org/10.1108/ET-12-2015-0111

Iglesias-Sánchez, P. P., Jambrino-Maldonado, C., & de las Heras-Pedrosa, C. (2019). Training entrepreneurial competences with open innovation paradigm in higher education. *Sustainability*, *11*(17), 4689. https://doi.org/10.3390/su11174689

Inner Development Goals. (2025). *The IDG framework 2.0: Inner development goals for sustainable development*. https://innerdevelopmentgoals.org/guide/

Interaction Design Foundation. (2016). *What is design thinking (DT)?* https://www.interaction-design.org/literature/topics/design-thinking

Ives, C. D., Freeth, R., & Fischer, J. (2020). Inside-out sustainability: The neglect of inner worlds. *Ambio*, *49*, 208–217. https://doi.org/10.1007/s13280-019-01187-w

Ives, C. D., Schäpke, N., Woiwode, C., & Wamsler, C. (2023). IMAGINE sustainability: Integrated inner-outer transformation in research, education and practice. *Sustainability Science*, *18*, 2777–2786. https://doi.org/10.1007/s11625-023-01368-3

Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals*, *7*(1), 663–715. https://doi.org/10.1080/19416520.2013.782190

Kassel, K., Rimanoczy, I., & Mitchell, S. F. (2016). The sustainable mindset: Connecting being, thinking, and doing in management education. *In Academy of management proceedings* (Vol. 2016, No. 1, p. 16659). Briarcliff Manor, NY 10510: Academy of Management. https://doi.org/10.5465/ambpp.2016.16659abstract

Kolko, J. (2015). Design thinking comes of age. *Harvard Business Review*, *93*(9), 66–71. https://hbr.org/2015/09/design-thinking-comes-of-age

Liedtka, J. (2015). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. *Journal of Product Innovation Management*, *32*(6), 925–938. https://doi.org/10.1111/jpim.12163

Linton, G., & Klinton, M. (2019). University entrepreneurship education: A design thinking approach to learning. *Journal of Innovation and Entrepreneurship*, *8*(1), 1–11. https://doi.org/10.1186/s13731-018-0098-z

Marin-Zapata, S. I., Román-Calderón, J. P., Robledo-Ardila, C., et al. (2022). Soft skills: Do we know what we are talking about? *Review of Managerial Science*, *16*, 969–1000. https://doi.org/10.1007/s11846-021-00474-9

Nordén, B. (2024). Advancing sustainability through higher education: Student teachers integrate Inner Development Goals (IDG) and future-oriented methodologies. *Challenges*, *15*(2), Article 28. https://doi.org/10.3390/challe15020028

OECD. (2021). *OECD future of education and skills 2030: OECD learning compass 2030 - A series of concept notes.* OECD Publishing. https://www.oecd.org/education/2030-project/

Orser, B., & Elliott, C. (2020). Feminine capital and entrepreneurship. Stanford University Press.

Pereseina, V. (2025). Sustainable Purpose- and Passionpreneurship: New-Age Lifestyle or a Necessity for Sustainable Development? Sustainability, 17(18), 8286. https://doi.org/10.3390/su17188286

Rauth, I., Köppen, E., Jobst, B., & Meinel, C. (2010). Design thinking: An educational model towards creative confidence. In *Proceedings of the 1st International Conference on Design Creativity* (pp. 1–6). https://www.researchgate.net/publication/268436912_Design_Thinking_An_Educational_Model_towards_Creative_Confidence

Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S. E., Donges, J. F., Drüke, M., Fetzer, I., Bala, G., von Bloh, W., Feulner, G., Fiedler, S., Gerten, D., Gleeson, T., Hofmann, M., Huiskamp, W., Kriegler, E., Rockström, J., Schaphoff, S., … Schellnhuber, H. J. (2023). Earth beyond six of nine planetary boundaries. *Science Advances*, *9*(37). https://doi.org/10.1126/sciadv.adh2458

Rieckmann, M. (2018). Learning to transform the world: Key competencies in education for sustainable development. In A. Leicht, J. Heiss, & W. J. Byun (Eds.), *Issues and trends in education for sustainable development* (pp. 39–59). UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000261802

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., de Wit, C. A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., … Foley, J. A. (2009). *A safe operating space for humanity*. *Nature*, *461*(7263), 472–475. https://doi.org/10.1038/461472a

Rosário, A. T., & Dias, J. C. (2022). Sustainability and the Digital Transition: A Literature Review. *Sustainability*, 14(7), 4072. https://doi.org/10.3390/su14074072

Sachs, J. D., Lafortune, G., Fuller, G., & Iablonovski, G. (2025). *Financing sustainable development to 2030 and mid-century: Sustainable Development Report 2025*. SDSN & Dublin University Press. https://doi.org/10.25546/111909

Seelig, T. (2012). *inGenius: A crash course on creativity*. HarperOne.

Shtaltovna, Y., Rodriguez Carreon, V., Lindencrona, F., & Donald, W. E. (2024). Cognitive skills within the Inner Development Goals (IDG) framework: Empowering sustainable careers and sustainable development. *GILE Journal of Skills Development*, *4*(1), 74–94. https://doi.org/10.52398/gjsd.2024.v4.i1.pp74-94

Stockdale, R. (2003). Thematic analysis in qualitative research. In P. C. L. Joffe & M. S. Gergen (Eds.), *Qualitative research methods* (pp. 49–67). SAGE Publications.

Torres-Sánchez, A. (2024). Education 4.0 framework for sustainable entrepreneurship through transdisciplinary and abductive thinking. *Frontiers in Education*, *9*, Article 1392131. https://doi.org/10.3389/feduc.2024.1392131

Tracy, S. J. (2020). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact* (2nd ed.). Wiley-Blackwell.

Val, E., Gonzalez, I., Iriarte, I., Beitia, A., Lasa, G., & Elkoro, M. (2017). A design thinking approach to introduce entrepreneurship education in European school curricula. *The Design Journal*, *20*(sup1), S754–S766. https://doi.org/10.1080/14606925.2017.1353022

van der Wal-Maris, S. J., Koene, J., & Mout, F. (2025). Education for sustainable development shaped as social entrepreneurship education (SEE): Students' perceptions of required competences and learning environment in teacher education. *Discourse and Communication for Sustainable Education*, *16*(1), 5–22. https://doi.org/10.2478/dcse-2025-0002

UNESCO. (2020). *Education for sustainable development: A roadmap*. https://unesdoc.unesco.org/ark:/48223/pf0000374802

Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. *International Journal of Sustainability in Higher Education*, *21*(1), 112–130. https://doi.org/10.1108/IJSHE-04-2019-0152

Zayed University. (n.d.). *College of interdisciplinary studies*. https://www.zu.ac.ae/main/en/colleges/colleges/__college_of_interdisciplinary_studies/index

## Declaration Statements

### Conflict of Interest
The author reports no conflict of interest.

### Funding
The author received no financial support for this chapter's research, authorship, and/or publication, but is currently involved in a related project funded by Zayed University Research Incentive Fund Grant.

### Data Availability
Data supporting the conclusions of this study can be made available upon reasonable request from the corresponding author.

### Ethical Statement
The authors confirm that they have obtained the necessary permissions from their respective universities to publish the case studies included in this manuscript.

## Open Access Agreement


## Corresponding Author
The corresponding author for this manuscript is Veronika Pereseina, who can be contacted by email via veronika.pereseina@zu.ac.ae.