



Re-imagining Higher Education through
Equity, Inclusion and Sustainability
(RISE)

2nd EUT+ International Conference on
Equality, Diversity and Inclusion

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Sozopol, Bulgaria
1 -3 September, 2022

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Section 1: Conference Programme

Thursday 1st September 2022

09:00 – 10:00	Registration
10:00 – 10:30	Opening ceremony
Chair Vladislav Ivanov, BG	
10:30 – 11:30	Keynote Speaker 1 Victoria Showunmi “Interrupting Whiteness; Identity, gender, intersectionality, and Leadership”
11:30 – 12:30	Panel session 1 “Explore the impact of different cultural contexts that shape higher education transformation today, and the creation of strategies, policies and plans for a equitable, inclusive and sustainable model of higher education”
11:30-11:45	Dan Zhang; Denise O’ Leary; Ashley O’Donoghue “A Conceptual Framework for Contextualizing Women’s Subjective Career Success (SCS)”
11:45-12:00	Margaret Kinsella “Universal Design - Inclusion and belonging Journey to date and Pathways forward”
12:00-12:15	Keith Murphy „ Experiencing Dyslexia Through the Prism of Difference“
12:15-12:30	Y. V. Svezhenov, Aleksander Nikov, Lubomir Dimitrov „Inclusive sustainable teaching approach in dynamic learner experience design“
12.30 – 14.00	Lunch Break
Chair Rositsa Velichkova, BG	
14.00 – 14.30	Keynote Speaker 2 Tom Cooney - The role universities will play in new hybrid ways of creating inclusive entrepreneurship
14.30 – 15.30	Panel Session 2 “Discuss the form inclusive leadership takes in the modern higher education landscape”
14:30-14:45	Bhuvan Israni “ Reverse Mentoring (RM) an effective way to advance the principles of equality, diversity and inclusion across universities: Findings from a literature review”

14:45-15:00	Ino Martinez, Isabel Olmedo – Cifuentes “Inclusive leadership in higher education institutions: The effects on innovative behaviour and psychological contracts”
15:00-15:15	Patricia Ganly, Serge Basini, Ashley O’Donoghue, “Advancing Interpretative Phenomenological Analysis as a novel methodological tool in deepening insights and amplifying the voices of Women Mentees in Leadership Development Programmes in Irish Higher Education Institutions”
15:15-15:30	Sylvia K. Gavigan, Nicholas S. Kiruma, Liz Murphy, Kingsley Author “Re-Imagining Andragogy for Innovative and Inclusive Leadership Training for Minority Women in Higher Education”
15.30 – 16.00	Coffee break
Chair Iskra Simova	
16.00 – 17.00	Panel Session 3 “Evaluate the commitment in higher education to the 2030 Sustainable Goals agenda, with reference to (among others)”
16:00-16:15	Ozéias Rodrigues da Rocha, Lucía Morales, Jon-Hans Coetzer, “Education to Enable Sustainable Economic Development”
16:15-16:30	Agnieszka-Kamila Maj, Karlis Valtins, Ruth Herrero, K.Bhatta, S.Kumar Jha “The commitment of higher education institutions to the 2030 Sustainable Goals Agenda: a way forward with the example of Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project”
16:30-16:45	Daniel Kamphambale, Lucía Morales, Jon-Hans Coetzer, “Understanding Economic Sustainability through the Lens of Education -Insights from Ireland”
16:45-17:00	Victoria Caballero “Gender Bias in Artificial Intelligence and it Consequences in Gender Equality and Woman Empowering”

Friday 2nd September 2022

9.00 -9.30	Registration
Chair Yvonne Galligan	
9.30 – 10.30	Keynote Speaker 3 Georgi Stoev “Contemporary challenges in a dynamic and unforeseen environment; impacts for politics, human impact, society, and social inclusion”
10.30 -11.00	Coffee break
11.00 – 12.00	Panel Session 4 “Re-imagine higher education through ‘whole of education’ and ‘whole of society’ perspectives”
11:00-11:15	Daniela Sotirova, Moral Exclusion Concept in Re-imagining Higher Education
11:15-11:30	Deirdre McQuillan, Antonio Juan Briones Peñalver, Iulia Clitan, Sylvia Gavigan “Re-Imagining Higher Education Institutions as inclusive entrepreneurial entities: a case for European University of Technology (EUt+)”
11:30-11:45	Jon-Hans Coetzer, Lucia Morales “Rethinking Higher Education Models along with the UN 2030 Agenda – A New Educational Paradigm”
11:45-12:00	N. Carbajosa, Phil. S. Morgret, Catherine Spencer, Uta Hameister, Working with the Intercultural Competence in Higher Education as a Path Towards Inclusion: A Practical Example from EUT+
12.00 – 14.00	Lunch break
Chair Isidro Ibarra	
14.00 – 14.30	Keynote Speaker 4 Yoanna Pavlova “Bulgarian aspects of Equality and feminism”
14:30 – 15:30	Panel Session 5 “Address issues of justice, and their intersectionality with historic legacies of injustice, and institutional responses to them in higher education”
14:45-15:00	Melody Chadamoyo „Developing Inclusive Libraries: A practical approach”
15:15-15:30	Bríd Ní Chonail, Nóirín Macnamara, Georgina Lawlor “Embedding anti-racism in the Community

	Development and Youth Work programme: the focus on positionality”
15:30-15:45	Catherine Deegan „Building Learning Communities: Initiating and Developing and Accessible and Inclusive Technology Community of Practice“
15:45-16:00	María Eugenia Sánchez Vidal „Accessible materials of the course “Business Economy” for preparing the university entrance exam in Spain“
16:00 – 16:30	Coffee break
Chair Deirdre McQuillan	
16:30 – 17:30	Panel Session 6 “Share innovative and inclusive teaching approaches and pedagogies”
16:30-16:45	Seán Henry; Aurelia Ciupe; Eleni Pashia; Rositsa Velichkova; Martin Pushkarov, “The seminar as a site of public pedagogy: Progressing equity, diversity, and inclusion across EUt+”
16:45-17:00	OJADOS GONZALEZ, D.; IBARRA BERROCAL, I.J.; SALCEDO EUGENIO, G.A.; MACIAN MORALES, A.; DI LEO, V. ; PAGÁN SÁNCHEZ, A “INCLUSION VR. A NEW VIRTUAL REALITY GADGET FOR INCLUSIVE EXPERIENCIES”
17:00-17:15	Timo Turunen “To enhance neighbourness in multicultural leaning environment”
17:15-17:30	Margaret Kinsella “The role of Makerspaces capturing student voice and creating connections and belonging through Universal Design”
17:30-17:45	Sylvia Gavigan, Antonio Juan Briones Peñalver, Iulia Clitan, Deirdre McQuillan, Supporting educators towards more inclusive design of entrepreneurship courses
18:00	Old town walking tour-meeting point in front of the "Lazur" Holiday House, Sozopol,
19:30	Conference dinner at Selena hotel restaurant

Saturday 3rd September 2022

Chair Eleni Pashia

<u>09:00-10:00</u>	Panel Session 7 " Assess the utility of EU diversity charters, and other European initiatives to foster inclusive societies"
<i>09:00-09:15</i>	A. M. Fernandes; F. Rabelo*; M. Perelygina, "Promoting intercultural awareness and good practices in higher education: migrant workers, hospitality and how to build an equitable and inclusive environment in university spaces"
<i>09:15-09:30</i>	Karin Gilland "Gender action plans: Can external funding programs have lasting effects?"
<i>09:30-09:45</i>	Yvonne Galligan, Deirdre McQuillan, Eleni Pashia, Rosa Gruner, Rositsa Velichkova, Iskra Simova "Challenges of Data Collection for equality between women and men: the EUT+ alliance case"
<i>09:45-10:00</i>	<u>Yoanna Pavlova, Ivan Petrov, Vladislav Ivanov, Angel Aleksandrov, "Regional traditions and practices of Marriage"</u>
10.00 – 10.30	Coffee break
10.30 – 11.30	'Thinkin' on reimagining higher education and concluding comments (white paper) – Prof Yvonne Galligan
11:30-12:00	Closing Ceremony

Section 2: Full Papers

A Conceptual Framework for Contextualizing Womens Subjective Career Success (SCS)

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ABSTRACT

Careerist" successful females are found to be rejected as relevant role models for some women, which demonstrates the limits of defining career success according to objective elements only. Drawing from a body of literature, this study assumes that the mixed results of the impact of gender on SCS may stem from the individualized way that SCS is defined, thus ignoring the social roots of people's cognition of career success. The study contributes to both the development of more gender-inclusive career theories and the establishment of gender-inclusive institutions at organizational and societal levels.

Keywords: Conceptual framework; Women; Subjective career success; Context

A Conceptual Framework for Contextualizing Womens Subjective Career Success (SCS)

Research Problem

Improving the representation of women in leadership positions is a common practice of gender inclusion in the field of human resource management (Kossek & Buzzanell, 2018). The underlying assumption is that gender diversity at the leadership level is conducive to achieving gender equality in the workplace. Successful women, as female role models, are thought to have a positive impact on women’s career advancement, and the representation of women at management level is usually seen as a symbol of women’s success (Glass & Cook, 2018). However, “careerist” successful females are found to be rejected as relevant role models for some women, which demonstrates the limits of defining career success according to objective elements only (e.g., positions and income) (Lebegue et al., 2019; Cross et al., 2017).

Theoretical Gap identified in Literature on gender and career success

Extant career literature shows that Objective Career Success (OCS) presents the public understanding on career success (Gunz & Heslin, 2005) “*in the sense of being socially shared*” (Abele, Spurk & Volmer, 2011, p.196), while Subjective Career Success (SCS) refers to how successful individuals feel about they have done in their working lives. Based on the definition, the objective/subjective duality of career success creates a methodological division between the objectiveist vs. subjectiveist approach in career research (Gunz & Mayrhofer, 2011). Then, OCS is described in an objectiveist way as income, hierarchical level, and the social status of a profession (Arthur et al., 2005; Ng et al., 2005; Abele & Wiese, 2008), while SCS can be operationalized in both objectiveist way as job satisfaction and subjectiveist way as individuals’ perceptions of career achievement (Judge et al., 1995) (see Table 1).

Table 1 Typology of career success

	Objective career success	Subjective career success
Objectiveist approach	Income, position, promotion	Job & career satisfaction
Subjectiveist approach		Perception of career success

(Adapted from Dries, 2011, P; Gunz & Heslin, 2005)

So far, the relationship between gender and career success has received much attention among social scientists (Powell & Mainiero, 1992). However, although the negative impacts of gender on women's OCS have been globally identified from the gender pay gap to gender occupational segregation (Santero-Sanchez et al., 2015; McKinsey & Company, 2018; Castell project, 2019; Hutchings et al., 2020), the empirical findings from the research that related to the role of gender in SCS are mixed. On one hand, when SCS is conducted as job satisfaction (i.e., objectiveist approach), both positive and negative as well as null effect of gender on satisfaction are reported (Green et al., 2018; Ng & Feldman, 2014; Steyrer et al., 2005). On the other hand, gender difference is found in women's perceptions of SCS (i.e., subjectiveist approach) when data is drawn on a small sample size, while it disappears when the broader and more diverse samples are involved (Tamang, 2020; Briscoe et al., 2018; Kirkwood, 2016). As the gender disparities in career experience being increasingly found to link with broader contextual issues (Grönlund & Öun, 2018; Lightman & Kevins, 2019), scholars call for attention to the contextual impacts on people's career experience (e.g., Briscoe, Hall, & Mayrhofer, 2011; Chudzikowski & Mayrhofer, 2011; Mayrhofer, Meyer, & Steyrer, 2007; Fernando & Cohen, 2014).

Research Question and Aim

Drawing from a body of literature, this study assumes that the mixed results of the impact of gender on SCS may stem from the individualized way that SCS is defined, for which ignoring the social roots of people's cognition of career success. Responding to Afiouni et al.'s (2020) call to develop contextual explanation for women's SCS, the study argues for a shift in the way that SCS is conceptualized, and considering the influences of context on it. Employing Bourdieu's concepts, "habitus" and "field", the study explores:

RQ 1: How would females construct their perceptions of career success in working context?

RQ 2: How could the situational meanings of women's SCS help to understand the mixed findings in literature related to gender and career success?

By answering the questions above, this paper aims to develop a gender-inclusive conceptual framework for contextualizing women's SCS to further our understanding of the contextual roots of SCS, and to promote a shift in the way that SCS is conceptualized, from individualizing one's perception of career success as a personal concept to contextualizing it as a social construct in context either.

Result

Based on Bourdieu's concepts, a conceptual framework of contextualizing women's SCS is developed (see Figure 1) which illustrates the possible relationships between one's perception of career success and the context in which her career unfolds. Here,

Paths 1-4 are developed to applied to explain how women's definitions of career success can be determined through their acquisition and internalization of both the constraining and supporting influences of gendered structures in the working context.

Path 5 is developed to explain how women's career success can be constructed through their career practice in an agentic way.

Paths 6-8 are developed to explain how women's OCS and SCS can be mutually constructed with each other in working context.

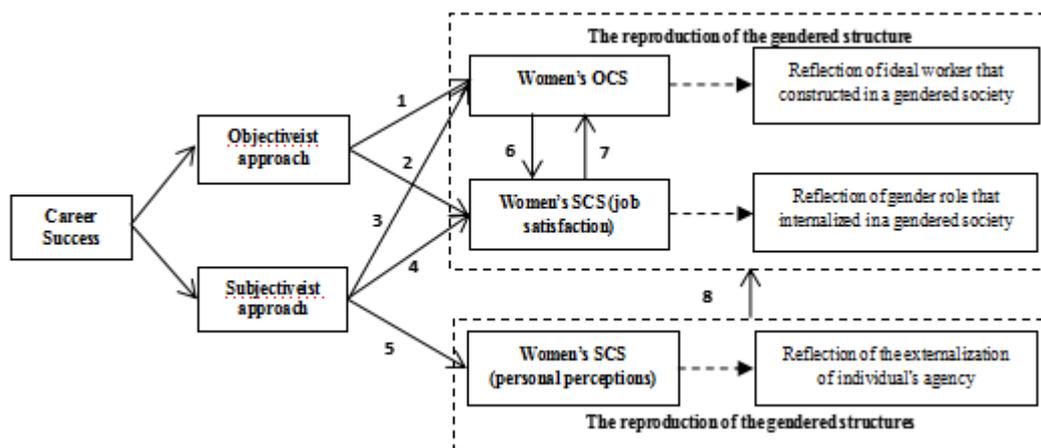


Figure 1 The conceptual framework of contextualizing women's career success

Discussion: situational meanings of women's SCS

Theoretical analysis of the contextual impacts on women's career success indicates that complicated relationships may be dynamically involved between career success and the context across time, and the concept of career success that women construct in workplace can be in line with, independent from, even conflict with the multiple structures in gendered context. As the framework shows:

Path 1: Women's inferiority in OCS may be the result of evaluating against a socially constructed ideal worker norm that based on a male role.

Path 2: Women may be satisfied with the properties of a work valued by most females for

which help to fulfill their social gender roles.

Path 3: Women's definitions of SCS may present what is a successful employee by internalizing the criteria of the ideal worker in the workplaces.

Path 4: Women's definitions of SCS may reflect what would be a successful female through the socialization of the social gender role.

Path 5: Women can construct SCS in a structuring (or innovative) way to adapt themselves to external circumstance, from rationalization, self-deceiving, avoiding being defining to complicity (Powell & Eddleston, 2008; Fernando & Cohen, 2014).

Path 6 shows that Women's SCS may be consistent with their OCS when they internalize the ideal worker norms in the workplace as their own criteria of assessment. Since the subjective and objective standards tend to be consistent, women's subjective feelings will keep in line with their objective career situation. In this sense, OCS works as the evaluating foundation for SCS.

Path 7 offers an explanation for the separation of women's OCS and SCS that the so-called gender paradox in job satisfaction (Pita & Torregrosa, 2021; Clark, 1997) can be understood as women are socially influenced to more willingly expect and accept the low level of OCS than their male counterparts, and the paradox of contented females (Powell & Eddleston, 2008) for their career inferiority may be the result of the unequal structure for genders in society.

Path 8: Women's SCS can be independent from OCS when there is a historical and spatial mismatch between one's perception and the context. Here, the independence of SCS indicates that women's perceptions of career success may have the potential to challenge the established gendered contexts.

Contribution

The current study is assumed to contribute to both the development of more gender-inclusive career theories and the establishment of gender-inclusive institutions at organizational and societal levels.

It adds a contextual perspective on the way that SCS is defined. Based on the contextual framework, future research can examine the possible relationships between women's SCS and the contexts at occupational, organizational and societal levels.

It feeds into career theory by employing a gender lens on people's cognition for career success. Through focusing on women's SCS, it responds to the calls for developing gender-inclusive

career theories based on women's work experience (O'Neil, 2008; Segovia-Pérez et al., 2018).

It provides various ways of rethinking organizational structures to be more gender-inclusive (Kossek & Buzzanel, 2018) by shedding more light on the diverse strategies that women construct their perceptions of career success in context.

Conclusion

It is concluded that Bourdieu's sociological concepts offer an effective way to help understand the subtle and complex links between SCS and the context, and to argue that no matter how SCS is defined at the individual level, it needs to be understood and interpreted within the particular context where individuals' careers are situated in at occupational, organizational and societal levels.

It is never enough for women to be competent, agentic participants, and perform successfully in working domains, for only when femininity can be equally valued and rewarded as masculinity, a gender-inclusive workplace can be fully achieved.

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Creating Inclusive Universities for Different Abilities

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Abstract

According to research by AHEAD (2021), students with specific learning difficulties are accessing third level education in greater numbers than ever before. Within the body of research conducted few have focused on the overall experiences of students with dyslexia studying in third level education. My study addresses this gap in knowledge as it provides an insight into how students with dyslexia navigate third level education. Ethnography was used as the principle method of research in this project, and 17 participants took part.

My research found that when students identify dyslexia as a limitation, it becomes a barrier to successful learning and has a negative effect on their identity, which impacts them socially and academically. However, an easier pathway to success is achieved when viewing dyslexia as a difference and this dissertation asks what their specific experiences are and what does it mean to study in third level education with dyslexia. This approach enabled my participants to achieve academic success, not despite their dyslexia but in partnership with it. This research and its findings are therefore relevant to several stakeholders such as policy makers, third level education institutions, disability support staff and teaching staff.

Creating Inclusive Universities for Different Abilities

Introduction

Dyslexia is a specific learning difficulty (EDA & DAI, 2022), under the umbrella term of neurodiversity (Singer, 1999) and a person with dyslexia is viewed as having a disability. People with dyslexia may experience greater stress and frustration as they endeavour to learn, resulting in heightened anxiety, particularly in relation to education (Nalavany, Logan & Carawan, 2018). Exploring dyslexia as a difference rather than identifying it as a deficit helps to unravel what society can often perceive as the complications surrounding dyslexia and how identifying with a diagnosis of dyslexia can carry cultural and societal expectations and perceptions. This often can then identify (Alexander-Passe, 2015) you within our society as having a deficit in your thinking or your brain functioning and can label you as a less intelligent person. However, identifying as I do with dyslexia as a difference and viewing dyslexia through a neurodiverse approach does not lessen dyslexia and/or its affects, it helps to conjure up very different societal perceptions and expectations.

The findings of this research illustrate the negative impacts a student with dyslexia can experience on their 'self' when asked to engage in front of peers. They also highlight the problems associated with attitudinal and institutional barriers, discourse, behaviour and cultural expectations around school, difference, and literacy. Therefore, it is important to consider how students with dyslexia navigate Higher Education (HE), the struggles they face and the barriers which are encountered. Dyslexia is often viewed through an ableist lens (Campbell, 2009), and this became the motivation to challenge and, thus alter fixed mindsets, prejudices, and society's expectations of students with dyslexia in HE.

Looking at dyslexia without internalised and externalised ableism enables us to advocate on behalf of people with dyslexia using this new lens, which positions dyslexia in the realm of difference and encourages people with dyslexia in education to use a growth mindset (Dweck, 2012), build resilience, make use of

the supports that are available and develop strategies that work for them. This research will highlight how adopting the ideas above and using a neurodiverse approach has paved the way for academic success for all the participants. Having dyslexia and being in HE is experienced in many ways and influenced by many internal and external factors: therefore, using the metaphor of a prism is a perfect way to imagine the complexity of the experiences. This 'prism' also became a tool in the hands of the research participants, who, after years of struggle, learned to analyse their own experience as multifaceted and many-shaded, involving not just ordeals and shame, but empowerment and self-discovery also.

This paper thus shows how students experience dyslexia through multiple 'selves' and identities, in terms of other aspects of difference. It highlights the experience of dyslexia from the inside out and challenges the notion that 'difference is a binary system comprising rigidly dichotomous entities' (Slesaransky-Poe and García, 2009:204), arguing instead that it is 'multifaceted, complex, always changing, and infinitely sociocultural' (*Ibid*). Hence, this research has explored cultural understandings of dyslexia and how my research participants navigate and identify with dyslexia within HE. Although this research moves across multiple themes, it is concerned primarily with the formation of identity and collective identity and how this negative identity can be transmitted within social groups and become part of the social 'legacy the individual acquires from their group' (Geertz, 1973:4).

Methodology

This research was conducted using ethnography as the primary mode of enquiry using 17 participants who have dyslexia studying in four different, HE institutions. All methods performed were conducted in accordance with the ethical standards of and were reviewed and approved by the ethics committees of Maynooth University, Kildare. Informed consent was acquired from all the individual participants in this project.

Research Questions

How did they experience and navigate HE education in Ireland?

How did they understand their dyslexia in the context of an environment so heavily reliant on text-based learning and assessment?

What does it feel like to negotiate the disclosure process, the discourse surrounding dyslexia and the cultural perceptions connected to dyslexia in HE?

By answering these questions, I provided a greater understanding of how learning is experienced by those operating within an environment and culture that champions the very issues that hinder people with dyslexia, such as reading, writing, short-term memory retrieval both in an oral capacity and in final written examinations.

Settings

I conducted fieldwork in lecture theatres, small group tutorials, cafés, and public spaces within the universities my research participants attended, observing how they approached teaching, assignments and managed their workloads. I also conducted small passive participation, shadowing some participants in their interactions in group work and lectures which were of a very varied nature and included modules that were both of an applied and theoretical design. This was a deliberate decision, as some modules require more participation than others.

Participants

The research was carried out in four different HE institutions during two academic semesters in 2018. There was a total of 17 participants, of which 14 identified as female and three as male. There were four participants from the 40+ age range, three from the 30-40 age group and the rest, ten, were in the 19- to 30-year-old age range. I sent out an expression of interest in my project via four HE institutions access offices. The disability services officers sent out an email about the research project to all their students who were registered with them as having a diagnosis of dyslexia. This email contained an introduction, a brief overview of the research project, and what their role as a participant would entail for them. No specific variable arose, or no rationale was discovered for the very low participation in the project by the male student population, as the only inclusion or exclusion to participation was having a diagnosis of dyslexia and being registered with the access office in your institution.

I met with the students to gain an insight into their educational journeys. They were informed of the nature and the purpose of the research and their right to

withdraw before a specified date. It was agreed that I would send them a copy of their transcript to allow them to confirm what was said and gain their consensual participation. In order to protect their identities, real names would not be used or any material which could identify them.

Field Work

The methodological tool I employed was participant observation and interviews, as it aims to describe life as it is lived, 'by a people, somewhere, sometime' (Ingold, 2017:21). Each participant was shadowed for at least one two-hour lecture and/or an hour tutorial at minimum once a week, as well as their bi-weekly group work sessions, I also took field notes which were used later during the writing-up process. I then conducted interviews which took place in 'natural settings' (Creswell, 2012) chosen by the participants. A recording device (LiveScribe pen) was used to ensure all data was saved and documented and these were transcribed later. This enabled me to read and re-read the transcripts several times to tell the stories of the participants.

The questions asked were around family history of dyslexia, brief experiences of formal school and how they experienced HE with dyslexia in terms of teaching, learning, assessment and supports. They were also asked about how they understood their dyslexia and how they thought others understood it, what the disclosure process was like, the discourse and identity experienced, and the cultural perceptions and prejudices surrounding dyslexia. The data collected from this research is a small snapshot of the population with dyslexia studying in HE, which is a limitation for this project.

Literature Review

Dyslexia Through Time

Dyslexia falls under the umbrella term, Neurodiversity (Singer, 1998), which is a range of different neurological challenges (Clouder, et al, 2020). It is recognised that like a person's fingerprints, no two brains, not even those of identical twins, are exactly the same (DeMello & Gabrieli, 2018), indicating there is no normal standard brain that exists to which all other brains can be compared to. The word 'Dyslexia' originates from the Greek word (*dís'lekṣiá*) meaning 'difficulty with words' (Cambridge Dictionary, 2020). However, dyslexia's appearance in society

is by no means a recent phenomenon and was identified as early as the 19th century (Kussmaul, 1878), as word blindness, which was first replaced with the word 'dyslexia' a decade later (Berlin, 1887).

Dyslexia is also regarded as a neurological condition that is genetic: a child with an affected parent has a risk of 40–60% of developing dyslexia (Hudson, Heigh & Otaiba, 2011). Dyslexia affects approximately 1 in 10 people and occurs on a spectrum with some people mildly affected and others more severely (DAI, 2022). Therefore, dyslexia is not an illness or disease that can be treated medically, nor is it something that comes and goes. Everyone with dyslexia is different but there is a commonality of difficulties with reading, spelling, writing, related cognitive/processing difficulties, memory retention and articulating information verbally or in written form. Nonetheless, dyslexia continues to be linked with the medical model and this can engender ableism, however, this research advocates on using a neurodiverse lens to view dyslexia also.

Problems with the Medical Model

The medical model treats disability as defects in need of treatment and in 'doing so, it reinforces the able body as the norm and perpetrates stigma and discrimination against people with disabilities' (Guevara, 2021:275). Society has tended to communicate with people who have disabilities through messages that their bodies/minds are defective, that they need to be fixed or cured, and that their inability to participate fully in society is imputable to them and to their disability (Gill, 1987; Oliver, 2013; Munzer, *et al*, 2020 & Guevara, 2021). Within HE the medical model is prevalent also, with dyslexia being treated as a disability which requires standardised supports for students with dyslexia to succeed. This model links a disability diagnosis to an individual and supposes that with medical intervention, or in a neurodivergent case, a psychological diagnosis a disability can be diminished or corrected through curing or managing the disability.

Dyslexia is also regarded as a neurobiological condition that is genetic in origin (EDA, 2017 & DAI, 2018), thus, reinforcing the use of the medical model. Dyslexia as a neurobiological disorder is associated 'implicitly or even explicitly, with a 'medical condition' or 'psychiatric condition' or 'psychopathology'' (Protopapas and Parrila, 2018:4). This can allow for assumptions and ableism to develop that

someone with dyslexia has a deficit and needs fixing in comparison to those who do not have dyslexia (Martin, 2012 & Hanebutt & Mueller, 2021).

Ableism

Ableism is a perspective on disability which assumes that disability is inherently abnormal; it is a perspective which leads to various forms of discrimination based on ability. It operates from a belief system revering 'a particular kind of self and body, which is portrayed as the perfect, species-typical, and therefore essential and fully human' (Campbell, 2009:5). This concept portrays disability as a diminished state of what it means to be a 'human being' and ableism can also be rooted in the medical model as it highlights this diminished state whereby the person needs to be fixed. This idea of the dyslexic brain 'needing to be fixed' to be more like the non-dyslexic brain or what some consider the 'normal' brain is relative to what McRuer (2006) theorises in his 'Crip' theory.

Crip Theory

Around 1971, a street gang emerged in Los Angeles called 'The Crips' due to their use of canes while walking. However, in the context of my research, I use the term 'Crip' as adopted by McRuer in 2006, which emerged within queer/disability studies as an adoption of the word 'Cripple'. There is still contention around the word 'Crip' for obvious reasons as Crip is an abbreviation of Cripple. In conjunction with my research, Crip theory is used in an attempt to raise awareness of the actual lives of students with disabilities, highlight the supports needed for them to experience third level education to its fullest and seeks to 'challenge constructions of able-bodiedness and be politically generative through the fracturing of key systems of oppression' (Bone, 2017:1297).

According to McRuer (2006), Crip theory argues that we should view disability as an important identity variable that should be recognised through an intersectional lens with all other identities, especially those that have historically been excluded or oppressed within larger society, as well as within disability culture itself' (Hanebutt & Muller, 2021:4). As stated already, instead of framing disability under a deficit or medical model of disability, which requires treatment, intervention, or a cure, my research posits that we align with how 'disability studies and Crip theory allow for a more critical and expansive look at disability as an aspect of identity

and culture' (Hanebutt and Mueller, 2021:5). My research argues that both Crip and neurodiversity theories have important impacts on the theory and practice of education, as both can work to simultaneously critique and change dominant perspectives of disability in education and in academic theoretical spaces (McRuer, 2006 & Hanebutt & Mueller, 2021).

Using these theories can challenge third level educational institutions, curriculum, and policy makers on the current models of education within third level education. This will enable these two concepts of inquiry and practice to reshape, challenge and develop towards a more just sense of disability and more inclusive educational institutions. Crip is in the process of being reclaimed by people with disabilities and identifying as 'Crip', for many reasons. It can be to show pride in one's disability, raise awareness of disability and neurodiversity, advocate for inclusion and to avoid the ranking of disability.

Crip theory and practice entails sustained forms of coming out, and this is applied within my research when we see how my research participants engaged in this 'coming out' process, which will be discussed in greater detail in the findings chapter. It also highlights that another more accessible world is possible in which disability is no longer experienced as oppression and exclusion, or something to be ashamed of or hidden away (Schalk, 2018). Consequently, developing a new meaning for the word Crip as an insider term within disability rights movements to provide liberation, freedom and to support the notion of 'coming out'. Identifying as Crip is used to highlight the struggle for rights, equality and to resist ableism and oppression. It also allows us to move away from disability hierarchy and ranking and is valuable in disempowering the term, disability, of its historical pejorative usages. The use and reclaiming of the term Crip is not universally accepted by all people with disabilities. Others object to using it because Crip and cripple can still be used as a slur (Sherry, 2013). However, Gupta (2019) suggests that continuing to use the term Crip 'continues to put people with disabilities in relation to able-bodiedness' (:2) and this, it is argued can maintain harmful views of people with disabilities.

The binary between disabled/able-bodied as a construct is contentious, as the disabled persona helps construct the boundary of what constitutes normal: 'Both constructs revolve around the dialectic between the "normal" and "abnormal", albeit with a certain difference in focus' (Mårtenson, 2013: 413). It is only possible to identify as 'normal' through not crossing these boundaries into the realm of

disability. 'Nearly everyone wants to be normal. Who can blame them, if the alternative is being abnormal, or deviant or not being one like the rest of us' (Warner, cited in McRuer, 2006:90). Kafer suggests that 'deconstructing the binary between disabled and able-bodied/able minded requires more attention to how different bodies/minds are treated differently, not less' (Kafer, 2013:13). Crip theory also exemplifies experiences of disability as it can help to 'jolt people out of their everyday understandings of bodies and minds, of normalcy and deviance' (Kafer, 2013:15). Nonetheless, Crip can help students with disabilities develop a model of resistance for themselves and others in order to develop a more neurodiverse educational environment.

My research argues that both Crip and neurodiversity theories have important impacts on the theory and practice of education, as both can work to simultaneously critique and change dominant perspectives of disability in education and in academic theoretical spaces (McRuer, 2006 & Hanebutt & Mueller, 2021). The neurodiversity movement argues that certain diagnoses concerning the brain, do not reflect neurological disorders, but rather neurological diversities. They also lie at the 'intersection of culture, mind, and brain as mind/brain discourses are taken up as cultural practice used in individual and collective identity formation as well as social and political action' (Kirmayer et al, 2020:14). This paper argues for a paradigm shift in how we approach and view neurodiversity and dyslexia. People everywhere admire honour, and encourage diversity in animals, nature, and our biosphere. Therefore, all cultural diversities and differences such as neurodiversity should receive the same recognition. This research also argues that we need to start enabling people with neurological differences to be accepted for themselves to discover and celebrate their strengths. The idea should not be to try to 'cure' people whose brains work differently, but to embrace them as being part of the mainstream. There is no normal standard brain that exists to which all other brains can be compared to. Therefore, the range of differences in individual brain function and behavioural traits should be regarded as part of a normal variation in the human population and viewed as having a brain that is wired differently (Clouder *et al*, 2020 & Murphy, 2021).

Disability pride also promotes visibility and mainstream awareness of the positive pride felt by people with disabilities in their communities. It marks a break from

traditional concepts of disabilities as shameful conditions. 'Viewing disability as a deficit within a person which needs fixing, immediately positions the individual as 'other' in the sense of being 'wrong' in comparison with the majority (Martin, 2012:15). Examining the social and cultural construction of dyslexia is also important to appreciate the origin of disability and how it has evolved over time. In many cultures, this perspective can affect how disability is perceived.

Dyslexia and Culture

Macdonald (2019) suggests research in the field of dyslexia has begun to use a range of models to interpret the social experiences of people living with this condition. In some countries, 'conditions such as dyslexia are not recognised as disabling, whilst in others, they are considered to be a mental disability suggesting that disability is culturally determined' (Clouder *et al*, 2020:759). This highlights how dyslexia can be culturally embedded within thought and language and is an example of the intersection between language as an evolved behaviour and literacy as a cultural invention (Pennington and Olsen, 2005). Dyslexia as a social construct depends on socially generated interpretations as 'society through language and its use continues to construct people, especially those perceived to have a lack or disability' (Leshota & Sefotho, 2020:6). This is mediated by sociocultural factors and how 'various social actors interpret and then define their academic abilities' (Kabuto, 2016:301). Dyslexia is not obvious to society, as it is a hidden disability, however, the difference between someone who has dyslexia, and its characteristics are exposed within the cultural settings of HE and its assessing methods. Neurodiversity views 'disability' as the result of the interaction between people living with impairments and an environment filled with physical, attitudinal, communication and social barriers. It also identifies that people are disabled by barriers in society, not by their impairment or difference. Neurodiversity posits that these are 'caused by the way society is organised, rather than by a person's impairment or difference' (Scope, 2016:509).

Dyslexia in Higher Education

Although HE institutions vary worldwide, one set of practises which can be seen globally are assessment accommodations (Nieminen, 2021) and their validity is

rarely questioned. Griful-Freixenet *et al*, (2017) suggested research within HE focuses on accessible and inclusive teaching practices, yet researchers and educators rarely contest assessment accommodations and if they 'work' and are inclusive. Notwithstanding, Nieminen (2020) posits that HE research has 'identified assessment and grading practices as the weakest link in how assessment supports learning, because students are positioned as passive objects of assessment' (2020:2). These accommodations are tied into the medical model and require medical documentation from students with a disability to gain compensation (Järkestig Berggren *et al*, 2016). A comprehensive reframing of assessment-related accommodations is needed (Bould *et al*, 2018). Continuing with the current model which includes structural, institutional, and attitudinal barriers, alongside staff who need more supports and training, only leads to what Basso (2009) terms as voice suppression.

This idea of academic imprisonment through voice suppression, is further illuminated through Basso's (2009) concept of 'ordeals of language' which involves conflicts between private and public voices. This creates a moment of what Carrithers (2009) describes as vicissitude and can tie into issues of shame around dyslexia. When the relationship between a person and their dyslexia brings about 'shame' and 'shaming' relations (Wundt, Frazer & Freud), it invokes 'self-suppression of voicing' and shame.

All these aforementioned theories are relevant to adopting a more neurodiverse approach to how we view dyslexia. They all represent and advocate for dyslexia as difference and advocate for the awareness, acceptance, empowerment, and inclusion for people with dyslexia. Therefore, the aim is to expose, analyse, and eradicate ableism, which is the discrimination in favour of non-disabled people. Disablism emphasises discrimination against people with a disability whereby the belief can be that people with a disability are inferior to those without a disability or what can be perceived as 'the normal' people. The notion of prioritising what is perceived to be 'normal' while excluding what is thought to be 'abnormal', is challenged by Crip theory (McRuer, 2006), critical disability theorists and my research.

Findings

The following section shares participants experiences of having dyslexia while studying in HE.

Awareness of Dyslexia

One of the main issues identified by participants was the lack of knowledge around dyslexia and how it affects their learning. The deficit view and discourse (Rappolt-Schlichtmann, *et al*, 2018) they encountered around dyslexia was described as loaded and confusing and centred around constructions of able-bodiedness (Bone, 2017). Crip theory (McRuer, 2006) argues that we should view disability as an important identity variable that should be recognised through an “intersectional lens with all other identities, especially those that have historically been excluded or oppressed within larger society, as well as within disability culture itself” (Hanebutt & Muller, 2021:4).

I think people's perception on dyslexia is so different. People don't know how to handle it (Kitty Kat). If anyone has got dyslexia, they kind of look at them as if they are stupid (Joy).

This allows for dyslexia to be then viewed as a deficit or ‘something wrong with someone’ as opposed to, nothing is wrong, it is just a difference. The deficit view can then create a certain perspective or allow a particular attitude to develop and thus, a barrier is created. This enables the creation of institutional and attitudinal barriers and ableism. Currently, there is very little research on ‘lecturers’ awareness of dyslexia and of their attitudes towards and opinions about dyslexic students’ (Ryder & Norwich, 2019:162). Students with dyslexia pose a particular challenge to academic staff because their difficulties are hidden, according to Pino & Mortari (2014). These findings also highlight the need to provide adequate training for HE education staff around dyslexia as the research highlighted how some teaching staff identified major problems in recognizing dyslexia, estimating the severity of the disability, and uncertainty about what would be the best form of support (Schabmann *et al*, 2020:275).

Yeah, I think there are intolerant lecturers that I've found very difficult, I was a stranger to them, and they didn't know I was trying or things like that (The General).

The knowledge lecturers had on dyslexia, and its impacts appeared to come from personal experience of family, friends, or students with dyslexia. When teaching staff had any awareness of dyslexia, with this awareness it usually connected to a more positive experience for students with dyslexia and created a learning environment more willing to accommodate them.

I don't know if they had a good knowledge, but they really went out of their way to make my learning, my life a little bit easier (Heffo). Most the lecturers, they seem to know about it [dyslexia] already like (Ali).

Voice Suppression

For my research participants, internalising doubts about their academic ability manifested as a fear when in a lecture hall or tutorial class, notably around when they were asked a question or encouraged to articulate their thoughts on a particular topic. This developed into a fear of appearing a bad academic or unintelligent, or 'looking stupid' (General) in front of one's peers and lecturers. This becomes what Carrithers (2009) describes as vicissitude, which is an unfavourable event or situation that occurs by chance, usually beyond one's control. This ordeal becomes a moment, unanticipated and beyond routine, and invokes what Basso (2009) terms as voice suppression. To be, or to imagine oneself as being under surveillance, triggers mechanisms of self-suppression and silencing and this can then create 'self'-oppression through fear, shame, and experience, arising out of a moment and thus, initiate what I term as academic imprisonment. For participants, this moment occurs as a 'performance' in an educational setting and/or involving peers and educators:

Whenever I was asked a question in class, I just froze (Smithwicks). No, no, I wouldn't answer questions in class, no way (Calloway). I overthink it and then I panic, like I know the answer, then I just sit there (Turbo).

Voice suppression (Basso, 2009) inhibits the learning experience and initiates internal conflict between the individual in their private realms, whereby in their mind they know the answer to the question, and public realms (Carrithers, 2009) through lecture halls, whereby they cannot when asked in front of their peers to answer the question. Conflict can then occur between one's own thoughts, feelings, emotions, and subjectivity and the lecture halls and tutorial rooms and this brings shame and introduces a humiliating relationship between the student and their dyslexia.

Even though I know I want to say it I just cannot say it, even if I have the right answer, I just don't say it and I just sit [in lecture hall/tutorial room] there awkwardly while everyone stares at me (Ali).

The 'Self'

A host of emotions were used by participants to describe their educational experiences with dyslexia including disappointment, frustration, embarrassment, shame, sadness, depression, anger, and low self-esteem.

So, I don't know if I have this ingrown thing that I think being dyslexic is awful (Summertime). I am afraid to tell people that I am dyslexic because the horror of being thought of as stupid (Winehouse).

Participants views and construct of the self were often not based on actual performance but upon perceived performance and these can influence their construct of self and impact on their experiences in HE. When students developed a negative association with their dyslexia (Gee, 2014) the challenge is then to dis-identify with the developed limited sense of self. This can in turn affect confidence on every level, which leads to students with dyslexia often using this persona of their 'self-esteem' for judgements of their self and self-worth. When participants identified and made a connection between a positive view of dyslexia and a positive identity with self-esteem, it helped to improve their cognition about their dyslexia which led to improved perceptions of self. One strategy developed by participants was leaving behind the concept of a fixed mindset and engagement with the concept of a growth mindset (Dweck, 2012). When participants recognised the concept of a fixed mindset and understood that intelligence is not fixed, they were able to embrace all the positive outcomes from using a growth mindset.

Discourse

Many informants remembered negative discourse and being called or made to feel stupid by teachers and peers. Many of my participants internalised this discourse and unconsciously carried the effects.

For me, in terms of when I was growing up, it was looked upon as being stupid (The Driver), people always said I was stupid (Ali), teachers just said that I was stupid (General).

Nevertheless, these experiences helped the participants to develop and build resilience alongside a positive attitude towards their dyslexia. The participants in this research use both person first language and identity first language in self-determination and daily use, highlighting our need to be diverse when conversing about dyslexia. Using this identity language, a picture emerged of my participants, labelled, yet still finding their way through third-level education by immersing themselves in discourse to justify their choice as to how they self-identify.

Identity

The theme of identity recurs in this research and my participants reported through discourse and disclosing dyslexia, they became labelled as belonging to a social category which often has links to negative connotations. Accepting dyslexia as a part of one's identity is a huge step in moving forward both in your personal and social life. It will also help to foster a healthier relationship between one's identity and the institution one has attended or is currently attending. My participants showed that when you are accepting of your dyslexia and identify dyslexia as being intrinsic to your makeup and an essential and absolute part of your 'self' and 'being', it can lead to a more positive educational experience.

I would really strongly identify with it [dyslexia] because I think it shapes a lot of who I am, (The General). I've got lots of different parts and one of them parts is dyslexia (The Driver).

To call someone a disabled person is to use IFL and it foregrounds the disability. To say that they are for example a person with dyslexia, puts their personhood first, and their disability as just one element of their whole personhood. This also underlines how discourse can shift people's positions and influence identities with respect to the question of PFL versus IFL debate within the field of disability (Vivanti, 2020).

Getting Over These Barriers

These findings reflected on how traditional teaching and assessment methods can create barriers for students with dyslexia and how they can penalise neurodiverse students. That said, and in spite of all the barriers that can be in place for students with dyslexia, my participants all succeeded in completing their academic journeys.

One of the hardest stops on this educational journey is the 'coming out' process or disclosing one's dyslexia and deciding who to tell and when to tell them. While attending university, my participants stated that embracing their difference and telling others about it was an extremely difficult process; nonetheless, when they did begin embracing their dyslexia, it was like a 'coming out'. I asked my participants to give one piece of advice to first-year students with dyslexia in third-level education and they all said to disclose as soon as they felt comfortable to, and to access the supports available.

One strategy developed by the participants was leaving behind the concept of a fixed mindset and engagement with the concept of a growth mindset (Dweck, 2012). When my participants recognised the concept of a fixed mindset and understood that intelligence is not fixed, they were able to embrace all the positive outcomes from using a growth mindset. Inclusivity and acceptance for neurodiversity in HE is increasingly recognised as fundamental for promoting inclusivity. Accepting who you are to yourself and using this as a motivator to succeed is also vitally important.

The findings show how accepting one's dyslexia enables this 'coming out', taking pride in their dyslexia and then the 'moving on' moment. No matter how many negatives or difficulties my participants encountered on their journeys, or no matter how 'broken' or disabled the 'self' may appear to others, when the person with the disability accepts their 'self' as the best form of themselves, anything is achievable. My participants have shown that by using dyslexia as a motivator rather than a de-motivator, success happens.

According to Leshota and Sefotho, 'culture shapes us into who we are, and we, in turn, construct culture' (Leshota & Sefotho, 2020:4). Therefore, disability is a culturally mediated category, whereby the meanings of the disability are shaped by the norms of the culture in which they exist. It also highlights the need for people with dyslexia to move away from the barriers discussed and embrace new and emerging approaches such as a neurodiverse approach, which this research is advocating for. This research has highlighted how students with dyslexia felt as though they were being treated as someone "with special needs". Nonetheless, I also wanted to alter what are sometimes negative societal connotations, cultural perceptions and how education can sometimes view and 'deal' with dyslexia. My research encourages a culture of full inclusivity within HE and the research findings supports this assertion.

Conclusion

This research project examined how students with a diagnosis of dyslexia navigated studying in third level education in an Irish context. The experience of being a student and the expectancy that brings, alongside the characteristics of having dyslexia and the issues surrounding this, were also explored. A large portion of the literature on dyslexia can tend to focus on the negative and what cannot be achieved in education, therefore suggesting that dyslexia is problematised and a person with dyslexia is perceived as a suffering 'being' in need of interventions and accommodations. Although I found this to be true, my research explored dyslexia using the metaphor of a prism and viewing dyslexia as a difference rather than a deficit.

My research discovered lots of barriers that were in place from the institutions where the participants studied, the imbedded experiences of having dyslexia and studying, perceptions, prejudices, teaching staff, peers, attitudes, and society's expectations of students with dyslexia were also explored. However, despite all these negatives, my research has proved that when the learners accepted dyslexia as an integral part of their self, developed a more growth mindset as opposed to remaining in a fixed mindset, and viewing dyslexia through a neurodiverse lens, success followed. Overcoming these barriers involves not only a mindset change by my participants, but a mindset change by teaching staff, policy makers and third level institutions. This research has highlighted how dyslexia can be likened to a prism, as dyslexia can be viewed as either a medical condition, a deficit or disability, a neurobiological condition, a sociocultural condition, a difference, or a neurodiverse phenomenon, depending on who is doing the viewing. The concept of a prism of difference also revealed that my participants have the possibility of developing multifaced intersecting identities and of experiencing third level education in a more positive way.

A vital part of this research is that it demonstrated how people with dyslexia can and will succeed in third level education, regardless of encountering the barriers that they confront. From analysing the data and my participants' personal experiences of studying in third level education, my findings show how one can succeed with dyslexia, not despite dyslexia but by adopting a neurodiverse approach. This will then increase the opportunities for people with dyslexia and enable them to become the experts that can teach us how to create a more

inclusive and diverse learning environment. One of the challenges for students with dyslexia is to dis-identify with a fixed mindset which promotes a limited sense of 'self'. This can be created by the destructive emotions associated with dyslexia and how it impacts on the educational experience. It is also imperative to work alongside disability advocates, disability study academics and disability activists to maintain awareness and to embrace the belief that there is nothing wrong with having a disability. However, what we always need to challenge is the notion there is something wrong with how people with disabilities are treated.

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Reverse Mentoring (RM) an effective way to advance the principles of equality, diversity, and inclusion across universities: A Systematic Review of Literature (SLR)

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Abstract

Purpose: The purpose of this systematic review of the literature (SLR) was to draw attention towards the various benefits as well as the challenges associated with the adoption of reverse mentoring models in various universities. In addition to this, this SLR will help academicians to understand the perspective of students so as to advance the principles of equality, diversity and inclusion across universities with the potential to help make universities more imaginative and equitable environments for one and all. This paper also proposed to outline future research on this topic, which is around how the organisational culture can play a pivotal role in supporting the reverse mentoring dyads.

Design/methodology/approach – A Systematic Literature Review (SLR) based on reflexive thematic analysis was conducted; review questions and key search terms were formed. Three academic databases were used, and the initial search yielded 130 papers. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (Page et al., 2021) were used for screening the papers and 10 papers were selected based on inclusion and exclusion criteria. The Crowe Critical Appraisal Tool (CCAT) was used to assess the quality of the resultant papers, and all were included in the review (Crowe and Sheppard, 2011).

Findings – The articles included in this systematic literature review on reverse mentoring shed light on how reverse mentoring is effective in bridging the technology divide between intergenerational groups and can promote diversity and inclusion. Reflexive Thematic Analysis by Braun and Clarke (2021) helped to condense the major findings into two themes and eight

subthemes. Along with the benefits, some key challenges of reverse mentoring were discussed in the analytical themes; some of the challenges that were discussed include but are not limited to time constraints and less experienced mentors.

Originality/value—As per the knowledge of the researcher, this is the first-ever systematic review of literature in the field of reverse mentoring, which has followed the PRISMA guidelines to screen papers between January 2007 till August 2023. Findings from this review would help academicians and practitioners to understand the various benefits as well as challenges of implementing the reverse mentoring model across universities. It would help academicians to address the barriers to RM, thereby promoting the values of equality, diversity, and inclusion across universities.

Paper type: Systematic Literature review

Keywords: Diversity, Equality, Inclusion, Intergenerational groups, Reverse Mentoring (RM)

Reverse Mentoring (RM) an effective way to advance the principles of equality, diversity, and inclusion across universities: A Systematic Review of Literature (SLR)

Introduction

Reverse mentoring was introduced by former General Electric (GE) CEO Jack Welch in the late 1990s (Finkelstein et al., 2003). Reverse Mentoring (RM) relies on the reversal of the conventional roles of mentee and mentor and the exclusion of the mentorship model as a hierarchy or traineeship (Peterson and Ramsay, 2021). Chaudhuri and Ghosh (2012) conceptualised Reverse Mentoring (RM) as a strategy wherein less experienced employees (mentors) are matched with more seasoned counterparts (mentees) for the purpose of sharing insights, with the initial knowledge transfer stemming from the junior employee.

With the influx of online education and increased accessibility of the internet in the early 2000s (Chaudhuri et al., 2022), many seasoned tenured faculty found themselves at a crossroads when they were being asked to teach online, which was negating their existing classroom pedagogy. Moore (2001) confirmed that if faculty members are sufficiently supported with resources, they are often not unwilling to use the technology in their classrooms. With this knowledge, Alvarez et al. (2005), with her colleagues, became the pioneers in trying out reverse mentoring in an educational setting at the University of Delaware and Bowling Green State University, where they were being reverse mentored by technologically literate graduate students in English who helped them develop online courses for the first time. So, traditionally, reverse mentoring has been acknowledged as a valuable approach for addressing the generation gap, focusing on enhancing the technological proficiency of senior employees through targeted skill enhancement interventions (Kaše et al., 2019; Murphy and Adams, 2005).

Reverse mentoring found its first application in the field of science and was published in a health-related journal. Today, it has sprawled into multiple disciplines and fields, the most prominent being the disciplines of education and management. Reverse mentoring has been used to encourage inclusivity between multiple generations in relation to ethnicity, gender and culture (Chaudhuri et al., 2022).

Purpose and Review Question

The purpose of reverse mentoring, which originally had a narrow technology focus, has widened over the years (Murphy, 2012). One of the more compelling and optimistic applications of reverse mentoring is to utilise it to challenge the existing condition around diversity and inclusion. Peterson and Ramsay (2021) stated huge positive effects on both groups, the senior leaders who were paired with Asian, Black, and Minority Ethnic students in universities. Besides solving issues shrouding around diversity and inclusion (Peterson and Ramsay, 2021), many organisations are also reaping the benefits of reverse mentoring (RM) in solving a variety of organisational problems such as employee attrition, communication issues and employee engagement (Chaudhuri and Ghosh, 2012; Murphy and Adams, 2005). Businesses that use RM as a training and human capital retention tool include Cisco, Hewlett-Packard (HP), The Hartford, Don Baer, PwC, Proctor and Gamble, General Motors, Unilever, Deloitte and Touche, Wharton School of Business at the University of Pennsylvania, and others (Gubler, 2019; Peterson and Ramsay, 2021). Although reverse-mentoring is an internationally well developed and a frequently used method, it is mainly used by private enterprises and corporations (Stepancik and Permoser, 2017).

The purpose of the current systematic review was to analyse and understand as to how the reverse mentoring model is being applied in higher education institutes to promote diversity and inclusion, thereby enlisting the various benefits as well as challenges of reverse mentoring. Just like corporates, some higher education institutes are also benefitting from reverse mentoring (Zauchner-studnicka, 2017). Some higher educational institutes do have reciprocal mentoring programmes and use these programmes to support their efforts to promote diversity and inclusion, increase communication and engagement across generations and potentially implement changes in work culture (Morris, 2017). These examples are not systematically organised and this SLR will address this gap as well as discuss the various challenges and benefits of reverse mentoring models.

The primary review questions for the study were as follows:

1. What can we learn from the literature about the reverse mentoring models that are being applied in higher educational institutes?
2. What were the various benefits as well as challenges while implementing reverse mentoring models in higher educational institutes?

Methodology

This research investigated three databases: Academic Search Complete, Academy of Management Learning and Education and Review of Educational Research, as these three databases were found to be most closely associated and relevant to the field of study (Sage, 2023).

Search Strategy

Several papers were searched by their paper titles, abstracts, and keywords in the second week of August, 2023. To search the databases efficiently and to yield relevant quality papers, keywords were generated (Table 1).

Table 1: Main Keywords

(Reverse Mentoring OR Coaching OR Mentorship)
AND
(Impact OR Influence OR Effect)
AND
(Employees OR Staff OR worker* OR Teacher)
AND
(Diversity* OR Inclusion* OR Barrier free environment*)
AND
(Education OR Higher Education Institutes OR Academic OR School Education* OR Educate* OR Train*)

All three databases were searched using the exact keywords and the initial search yielded a result of 130 articles. Table 2 illustrates the search results obtained from each database.

Table 2: Search Results from each Database

S.No.	Database	Search Results (in numbers)
1	Academic Search Complete	37
2	Academy of Management Learning and Education	70
3	Review of Educational Research	23
	Total: n=130	

Selection Criteria

The articles were screened based on well-formed inclusion and exclusion criteria. The inclusion and exclusion criteria applied for literature screening are presented below in a tabular form (Table 3).

Table 3: The inclusion and exclusion criteria applied for literature screening

Inclusion Criteria	Exclusion Criteria
Employees who were engaged either in full-time or part-time jobs in the education sector. Students enrolled in either full-time or part-time courses in universities.	Those who were self-employed. Students enrolled in distance/online educational programmes.
Reverse mention programs given in the educational sectors.	Other sectors such as private and public organisations, MNCs, start-up organisations and NGOs, were excluded.
Reverse Mentoring programs given in person or through virtual modalities. Furthermore, reverse mentoring programs which were embedded within multi-faceted programs.	Any program that was not centred around/based on reverse mentoring. Not focused on the educational/university context.
Qualitative papers, theoretical and narrative papers were included	Quantitative studies as well as guides on reverse mentoring, grey literature, and book reviews; non-empirical articles (commentaries, blogs, talks and practitioners' articles), case studies, historical studies and articles from newspapers and magazines were excluded.
Peer-reviewed papers/studies in the English language published in academic journals between January 2007 till August 2023.	Duplicate studies were removed.

Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA)

This systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (Page et al., 2021) (refer to Table 4). All the obtained papers (130) were imported to Mendeley. Duplicates were identified by using the 'Checking for Duplicates' function in Mendeley. All the duplicates were removed. Thereafter, screening 1 was done based on reading the title, followed by screening 2, which was based on reading the abstract. Thereafter, full articles were read and finally, 10 papers were selected based on the PRISMA screening and the selection criteria.

Table 4: Prisma Flowchart

Records identified through
database search (n=130)

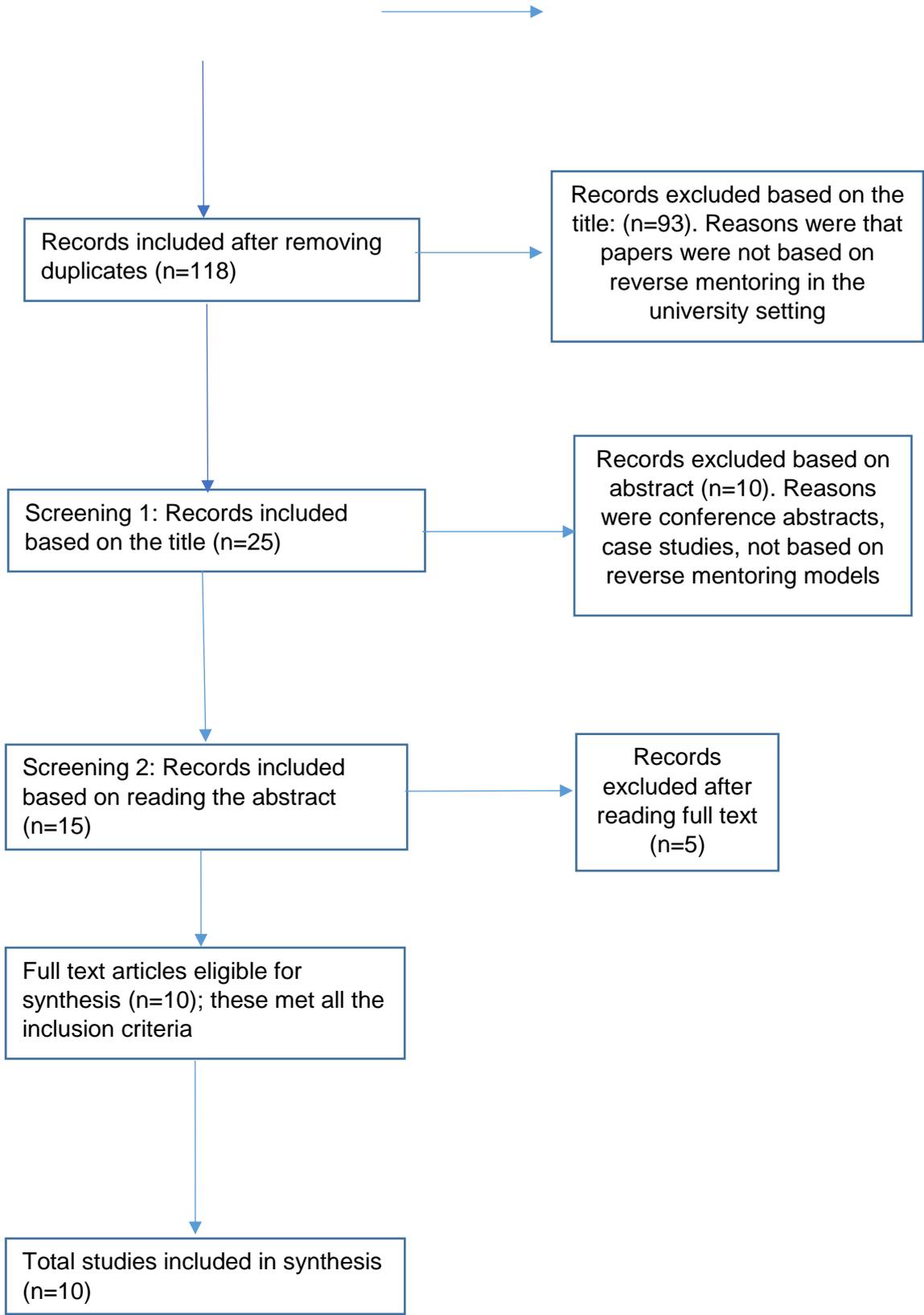
Duplicate records
excluded (n=12)

IDENTIFICATION

SCREENING

ELIGIBILITY

INCLUDED



Crowe Critical Appraisal Tool (CCAT)

Crowe Critical Appraisal Tool (CCAT) was used to assess the quality of the included studies (Crowe and Sheppard, 2011). The scores were given to each paper and none of the 10 papers were excluded based on the scores which were given. This is because several commentators, including Pawson (2006) and Dixon-Woods et al. (2008), pointed out that excluding an entire study on the basis of an appraisal of study quality may not be appropriate.

Study Characteristics Table

The articles included in this literature review on reverse mentoring were summarised according to the title of the paper along with the authors and year of publication, nature of the study and number of participants (n), setting (industry sectors), data collection method, purpose and aim of the study. This is illustrated in Table 5: Study Characteristics Table.

Table 5: Study Characteristics

Title of the paper along with the authors and year of publication	Clarke AJ, Burgess A, van Diggele C and Mellis C (2019) The role of reverse mentoring in medical education: current insights. <i>Advances in medical education and practice</i> : 693-701.
Nature of the study and number of participants (n)	Theoretical paper with no participants
Setting (Industry sectors)	Reverse mentoring in medical education
Data Collection Method	NA
Purpose and aim of the study	This paper aims to discuss the role of reverse mentoring in the health sciences and medical education.
Main Findings	<ol style="list-style-type: none">1. The authors of the study were a neurology advanced trainee (AC), two educationalists (AB and CVD) and a paediatric respiratory consultant (CM), all skilled in working across the university and hospital sectors. They proposed that due to the increased utilisation of Information Technology in medical education, reverse mentoring plays a crucial role in both medical education and the field of health sciences.2. The article discussed the advantages and disadvantages of reverse mentoring. The benefits of reverse mentoring were discussed in detail both for mentors and mentees.3. The difference between traditional mentoring and reverse mentoring was deliberated.

Title of the paper along with the authors and year of publication	Alvarez DM, Blair K, Monske E and Wolf A (2005) Team models in online course development: A unit-specific approach. Journal of Educational Technology & Society, 8(3): 176-186.
Nature of the study and number of participants (n)	Narrative methodology as the experiences of 2 faculty members and 2 doctoral candidates were noted.
Setting (Industry sectors)	University
Data Collection Method	Interviews
Purpose and aim of the study	Chronicling the possibilities and constraints of implementing a team-development model for online course design and offering guidelines for academic units wishing to adopt similar models.
Main Findings	<ol style="list-style-type: none"> 1. An RM program was made and implemented in which students mentored their professors so that all the professors could develop an online teaching module. 2. After the online RM program was implemented, the benefits of team development and reverse mentoring in the development of online courses were discussed in detail in this paper.
Title of the paper along with the authors and year of publication	Peterson C and Ramsay D (2021) Reducing the gap! Reciprocal mentoring between Black, Asian and minority ethnic (BAME) students and senior leaders at the University of Gloucestershire. Perspectives: Policy and Practice in Higher Education, 25(1): pp.34-39.
Nature of the study and number of participants (n)	Pilot study with semi-structured interviews of 9 student participants (Black, Asian and minority ethnic (BAME) students) and 10 partners, including the Vice Chancellor and two members of the Council.
Setting (Industry sectors)	University of Gloucestershire

Data Collection Method	Semi-structured interviews of all the participants
Purpose and aim of the study	Record the experiences of mentees and mentors engaged in RM programme.
Main Findings	<ol style="list-style-type: none"> 1. All BAME students and senior leaders had an overall positive experience with RM. The students expressed that each of them had gained something distinct from the experience, ranging from academic guidance (such as deciding to pursue a Master's degree) to practical skills for employability (like time management and improving their CV skills). Jointly, they felt the scheme was positive and they were of the opinion that it would greatly improve the experience of future students. 2. All the participants reported the personal benefits of participating in the RM scheme. However, senior leaders perceived it constantly in terms of the enhancement of personal knowledge and awareness of lived experiences. Although gaining personal knowledge was the crucial outcome of the scheme, it was important to ensure that any institutional learning from the scheme was captured, actioned and disseminated. One participant put forth the idea of urging every senior leader involved to pinpoint a specific, actionable step they would take based on their engagement in the process.
Title of the paper along with the authors and year of publication	Morris LV (2017) Reverse mentoring: Untapped resource in the academy? Innovative Higher Education, 42: 285-287.
Nature of the study and number of participants (n)	Theoretical paper with no participants
Setting (Industry sectors)	Academia

Data Collection Method	NA
Purpose and aim of the study	The aim of the study was to understand if there was a role for reverse mentoring in the academy. This study aimed to analyse if reverse mentoring could provide students with opportunities to teach, to reflect on their knowledge, and to practice leadership skills while gaining insight into the academy as a unique educational and social organisation. Furthermore, this study set out to find how universities can engage students to formally mentor those faculty members who are deficient in the use of rapidly changing technologies and evolving social media.
Main Findings	There is a big role and scope of reverse mentoring in academia.
Title of the paper along with the authors and year of publication	Raza A and Onyesoh K (2020) Reverse mentoring for senior NHS leaders: a new type of relationship. Future Healthcare Journal, 7(1): 94. https://doi.org/10.7861/fhj.2019-0028
Nature of the study and number of participants (n)	A qualitative study with two Black and Minority Ethnic (BME) staff and a senior white male director.
Setting (Industry sectors)	Guys' and St Thomas' NHS Foundation Trust in 2018
Data Collection Method	This paper used an assortment of methods, including one-to-one interviews with mentors and mentees, observations of mentees' team meetings and visual inspections of mentees' departments.
Purpose and aim of the study	The Reverse Mentoring for Equality, Diversity and Inclusion (ReMEDI) initiative was introduced at Guys' and St Thomas' NHS Foundation Trust in 2018. It involved matching senior white leaders (as mentees) with mentors from black and minority ethnic (BME) staff. The primary goal was to enable the senior leaders to delve into their mentees' approaches regarding equality, diversity, and inclusion. The aim of the study was to gain insight into the attitudes, behaviours and practices in relation to equality, diversity and inclusion of the mentee (senior white male director) over a span of months of RM.

Main Findings	The paper noted several positive practices in the mentees' various levels of operation, which were classified as organisational, symbolic, individual, and departmental. At an individual level, this paper explored participants' attitudes towards and behaviour with black minority ethnic (BME) staff; at the departmental level, it included the departmental culture and practice and at the organisational level, the mentee supported the black and minority ethnic awards and nominations. At a symbolic level, there were pictures on the department wall of black and minority ethnic staff winning awards.
Title of the paper along with the authors and year of publication	Leh AS (2005) Lessons learned from service learning and reverse mentoring in faculty development: A case study in technology training. Journal of technology and teacher education, 13(1): pp.25-41.
Nature of the study and number of participants (n)	Empirical qualitative study carried out by informal interviews and surveys at the end of every workshop titled 'Preparing Tomorrow's Teacher to Use Technology (PT3) program'. There were 35 faculty members as participants.
Setting (Industry sectors)	College of Education (COE) State University
Data Collection Method	Interviews and observations
Purpose and aim of the study	To record the experiences of young mentors and professor mentees engaged in RM.
Main Findings	<ol style="list-style-type: none"> 1. Professors produced technology projects by themselves with the help of their mentors. 2. At the end of the activities, students wrote a report describing their mentoring experiences. 3. Overall, the students were proud of mentoring their professors and it significantly increased their self-esteem. 4. Professors greatly appreciated the flexibility of the trainings and said that they learnt a lot from the trainings. <p>However, the author of the study noted that some professors requested for a mentor but never worked with them.</p>

	<p>When the professors were asked as to why they didn't work then most of them replied that they liked the idea but never had the time to work with their mentors.</p> <p>5. It took more time than anticipated for the students to build a working rapport with the professors and for the mentorship to flourish.</p>
Title of the paper along with the authors and year of publication	Zauchner-Studnicka SA (2017). A model for reverse-mentoring in education. International Journal of Educational and Pedagogical Sciences, 11(3): 551-558.
Nature of the study and number of participants (n)	Based on empirical studies and theoretical approaches. There were no participants in this theoretical study.
Setting (Industry sectors)	Schools
Data Collection Method	NA
Purpose and aim of the study	This article aimed at the research and theory-based development of a reverse-mentoring model for education in schools.
Main Findings	<ol style="list-style-type: none"> 1. Quality concerns for mentoring were discussed. 2. An effective mentoring program has to be designed for the specific context. For example- in the economy or industry, mentoring is often used for career development or for the heightening of job satisfaction, while in public institutions, mentoring is employed for knowledge transfer and in the medical sector, it is utilised to support the socialisation of young co-workers into the profession. 3. The matching of mentors and mentees is to be regarded as an essential quality issue. 4. Lack of training of the mentors is also considered a quality concern. 5. Deciding on the length and frequency of the RM programme is challenging.

	6. In organisations, it is challenging to fit mentoring programs into the organisational strategies and processes.
Title of the paper along with the authors and year of publication	Augustiniene A and Ciuciulkiene N (2013) Reverse mentoring as facilitating factor for the development of a beginning teacher's self-authorship process. <i>Social Sciences</i> , 81(3): 73-84. https://doi.org/10.5755/j01.ss.81.3.5791
Nature of the study and number of participants (n)	Analysis of scientific literature and content analysis of research participants' reflections. The sample consisted of 62 beginning teachers-mentees
Setting (Industry sectors)	School
Data Collection Method	All 62 mentees studying in the program were asked to write down their reflections on their pedagogical practice experience as a free text with special attention to answer the question 'What educational initiative of a mentee mostly affected mentor's professional development?'
Purpose and aim of the study	Identifying reverse mentoring aspects that moved the mentees towards the self-authorship process while becoming a professional.
Main Findings	<ol style="list-style-type: none"> 1. Mentees in the reverse mentoring process learnt to challenge their own prejudice, became open in a real learning environment, established a dialogue with their mentor and became more independent in their pedagogical solutions. 2. Mentees mostly experienced that reverse mentoring impacts competencies such as 'Communication skills', 'IT literacy' and 'Self-evaluation skills'.
Title of the paper along with the authors and year of publication	Gündüz Ş and Akşit B (2018) Student-president reverse mentoring at universities: Maltepe University case. <i>Yükseköğretim Dergisi</i> , 8(3): 346-356. https://doi.org/10.2399/yod.18.019

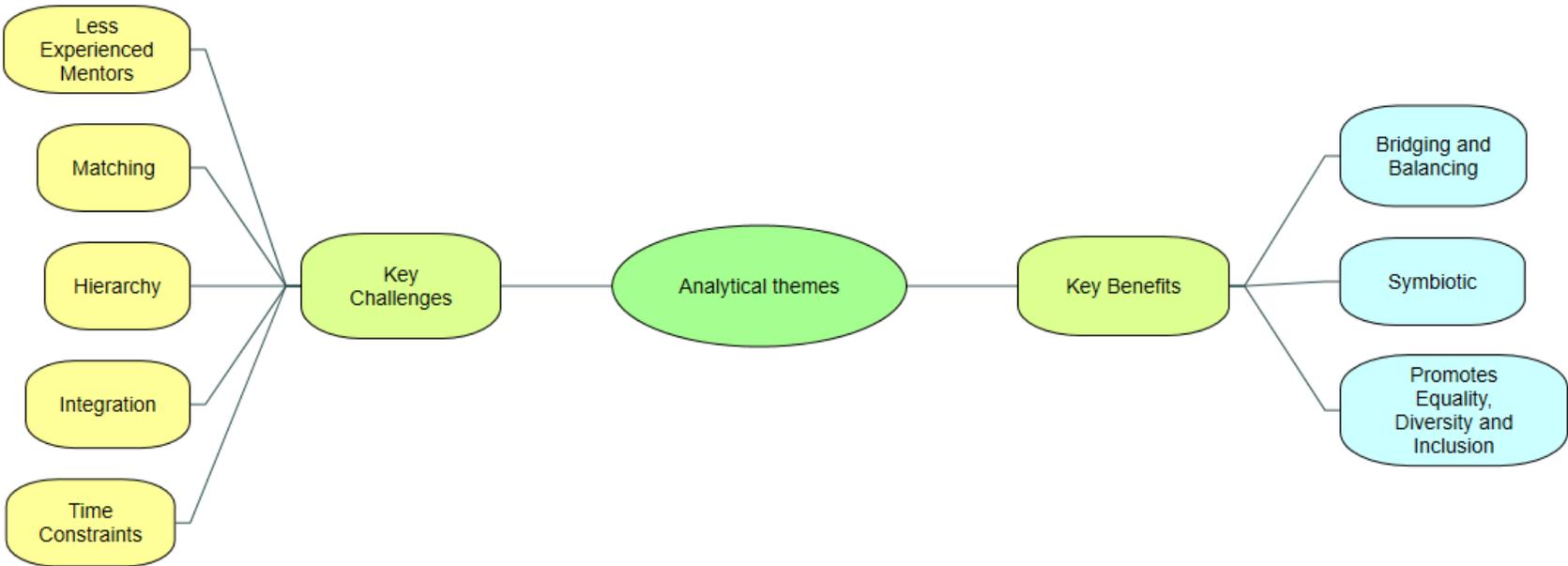
Nature of the study and number of participants (n)	Qualitative case study. The participants were five students (mentors) and the President (mentee) of Maltepe University.
Setting (Industry sectors)	Maltepe University in Turkey
Data Collection Method	Case study method with an in-depth interview technique was chosen due to the restricted number of mentors and mentees.
Purpose and aim of the study	Explore the experiences of the participants in Maltepe University, whose President initiated a reverse mentoring project at Maltepe University under the title 'Social Media Student Support Group (SMSSG)'.
Main Findings	<ol style="list-style-type: none"> 1. The students aided the President and the University with basic social media applications. Barbour, Thomas, and Ritter (2006) in their research found that the universities were spending a great amount of money on technology but not on staff development to catch up with these technologies per se. Exposure to fast-changing technologies enables organisations to envision a new vision, like reverse mentoring. 2. The conceptualisation through the findings discovered the significance of a reverse mentoring system from which all higher education institutions can benefit. The findings of this case study revealed how reverse mentoring can clear up negative stereotyping in academia. 3. Both mentors and mentees found RM to be useful and provided their feedback on how RM can be made more effective.
Title of the paper along with the authors and year of publication	Frey TK (2021) Overcoming technological barriers to instruction: Situating Gen Z students as reverse mentors. <i>Frontiers in Communication</i> , 6: 6308.

Nature of the study and number of participants (n)	Theoretical with no participants
Setting (Industry sectors)	University settings
Data Collection Method	NA
Purpose and aim of the study	The essay presented an argument for using reverse mentoring to resolve technological problems in the academy.
Main Findings	<ol style="list-style-type: none"> 1. Gen Z students were uniquely positioned to make the most of reverse mentoring programs. 2. Instructional communication was an essential framework for future reverse mentoring research.

Thematic Analysis

Thematic analysis as an approach was adopted to analyse each paper and to make themes from each paper (Braun and Clarke, 2006). An inductive approach was followed where each paper was read and re-read several times so as to generate meaningful codes and *posteriori* themes from it (Braun and Clarke, 2021). Six phases of reflexive thematic analysis and several rounds of coding (semantic, latent and inductive codes) in NVivo software enabled the researcher to form 2 major themes with 8 sub-themes. A thematic map in NVivo was formed, which enabled the researcher to explore the relationship between codes and various levels of themes (Kiger and Varpio, 2020; Nowell et al., 2017) (Figure 1).

Figure 1: Thematic Map



Based on the systematic literature review, two major themes emerged:

Theme 1: Key Benefits

Research suggests that RM has the capacity to narrow the gap between different employee generations. It is clearly stated in the extant literature base that RM “not only builds social capital within the workplace but also provides a two-way learning process; the mentor and mentee learn from each other” (Clarke et al., 2019: 694).

Some of the key benefits of RM are listed below as subthemes.

Sub-Theme 1: Bridging and Balancing

Reverse mentoring enabled the senior mentors to learn about technology from junior mentees (Frey, 2021; Murphy, 2012). For example, in the field of higher education, graduate students with digital literacy were paired with senior faculty members in the same department so that the senior faculty members could enhance their pedagogical skills from the guidance of their junior mentors (Alvarez et al., 2005).

Reverse mentoring can help in the structuring and balancing of the workforce. These days, organisations are grappling with retaining the millennials, mostly identified as job hoppers (Nolan, 2015). The challenge of retaining millennials who have superior technological skills is further aggravated by the exodus of the baby boomers, who retire at the rate of 10,000 employees per day (Gündüz and Akşit, 2018; United States Census Bureau, 2015). This presents a unique double-barrelled challenge for organisations to retain organisational knowledge as the brain drain is bidirectional. To address this quintessential challenge, many scholars have proffered inter-generational learning (Chaudhuri and Ghosh, 2012) as an option to retain the millennials and to engage the boomers. RM thus can help organisations to update the baby boomers with the latest techniques and technologies so as to mitigate the impact of churning (Augustiniene and Ciuciulkiene, 2013; Gündüz and Akşit, 2018).

Sub-Theme 2: Promoting Equality, Diversity and Inclusion

The attainment gap in higher education outcomes between under-represented ethnic minority groups and the white student body is a problem at a variety of institutions around the UK and Europe, requiring immediate and sustained interventions and actions (Chaudhuri et al., 2022). Some universities have opted for reciprocal mentoring programmes, where senior leaders in the organisation are paired with Black, Asian and Minority Ethnic (BAME) students (Peterson and Ramsay, 2021). In universities, the mentees are the faculty members, and the mentors are students and employees from different countries, each bringing a unique perspective with regard to religion, sexuality, race and ability. Therefore, RM can help to build a more inclusive and diverse organisation. In their research, Clare Peterson and Daniel Ramsay reached the conclusion that the practice of reciprocal mentoring at the University of Gloucestershire demonstrates the effectiveness of involving senior leaders and students from ethnic minority backgrounds. This approach was beneficial for the institution and proved to be personally enriching for the participants (Peterson and Ramsay, 2021).

Sub-theme 3: Symbiotic

Both mentor and mentee take advantage of the reverse mentoring relation (Augustiniene and Ciuciulkiene, 2013). The idea of reverse mentoring presents an inventive approach to promoting learning for all parties involved (Gündüz and Akşit, 2018). Additionally, it holds significant promise in enhancing intergenerational connections by fostering comprehension and mutual respect (Zauchner-studnicka, 2017). For example, in a university setting, the experienced professors/staff can get an insight into the dreams and aspirations as well as the fears of their young student mentors. At the same time, experienced professors/staff stand to gain from obtaining up-to-date knowledge of IT (Information Technology), making them more efficient in their day-to-day activities. This may, in turn, enhance their job satisfaction (Zauchner-studnicka, 2017).

Theme 2: Key Challenges

The mentor, who is younger or less experienced in the relationship, might grapple with issues of confidence and limited experience (Clarke et al., 2019; Gadomska-Lila, 2020). Moreover, the conventional power dynamics might be intensified by the overlapping responsibilities between the mentor and mentee roles within a reverse mentoring relationship (Murphy, 2012). The key challenges arise primarily because RM is very different from traditional mentoring. Some of the key challenges to reverse mentoring are listed below as subthemes-

Sub-theme 1: Less experienced mentors

The mentor may lack prior experience in the role of mentor, limiting his or her ability to fulfil this role adequately (Frey, 2021). Alvarez et al. (2005) found that hierarchical structures and lack of experience of mentors can act as inhibitors to the practice of RM. To overcome this potential limitation, reverse mentoring relationships must be characterised by mutuality, reciprocity and mutual respect.

Sub-theme 2: Matching

Roles that overlap can cause the traditional mentor-mentee exchange to have less distinct boundaries and the pairing of mentors and mentees should be considered a significant aspect of quality management (Clarke et al., 2019). The matching strategy needs to be considered carefully (Frey, 2021), and there is a dearth of literature in this area (Clarke et al., 2019). According to Schmid and Haasen (2011), it is essential to clearly define the mentoring aims and to recruit the target group.

Sub-theme 3: Hierarchy

In a study conducted by Alvarez et al. in 2005, it was discovered that barriers could arise between graduate students and faculty members who uphold a hierarchical structure. This could result in feelings of discomfort, hindering the ability to perform needs assessments and effectively exchange skills. Because the mentee is higher up in the hierarchy, some mentors might feel the pressure. For example, in a study by Leh (2005), it was found that when many professor mentees did not attend the RM, it worried some student mentors. Certain organisations opt to conduct their reverse mentoring initiatives in a neutral environment outside the confines of the office premises and this choice is influenced by the desire to prevent the reinforcement of hierarchical structures and power disparities that may have existed between senior mentees and junior mentors (Alvarez et al., 2005; Chaudhuri et al., 2022; Leh, 2005).

Sub-theme 4: Integration

Incorporating the program into the organisational process is essential and the RM program should be promoted within the organisation (Morris, 2017; Peterson and Ramsay, 2021). However,

integrating reverse mentoring into the overall organisational strategy poses challenges, particularly in determining the appropriate frequency, duration, and method for the reverse mentoring process (Zauchner-studnicka, 2017).

Sub-theme 5: Time Constraints

Peterson and Ramsay (2021) in their study observed that while numerous professors collaborating with mentors lauded the personalised training, a portion of these professors either requested a mentor but did not engage with them or interacted with their mentors merely on a sporadic basis. When asked why the service was not fully utilised, one mentee professor said, “The only area I would change on the reverse mentoring programme is getting more time with the mentors, to be more deeply embedded in what I do” (Raza and Onyesoh, 2020: 96).

The development of the mentorship dynamic took longer than a single quarter (or semester) to fully blossom (Leh, 2005). According to researcher Starcevich, the crucial aspects of a mentoring relationship are careful planning and effective management. He emphasised that dedicating a significant amount of time is a key component for the success of any mentoring relationship (Eller et al., 2014).

Discussion

The majority of the studies analysed in the review indicated that the primary focus of research on reverse mentoring was centred around transferring knowledge and bridging the technological gap among different age groups (Alvarez et al., 2005; Chaudhuri et al., 2022). Several observed results of reverse mentoring include the development of leaders and leadership competencies, enhanced learning and performance, elevated employee engagement, betterment of workplace culture, and the cultivation of team development (Murphy, 2012; Clarke et al., 2019; Morris, 2017). The sharing of ideas contributed to the cultivation of cross-generational leadership skills (Powell, 2013). The analysis clearly indicated the benefits and challenges experienced by both mentors and mentees, and these will be further discussed in the subsequent paragraphs by taking in the viewpoints of both mentors as well as mentees.

For mentors, the primary benefit of participating in a reverse mentoring relationship was their own leadership development and the chance to collaborate closely with a seasoned colleague, which enabled the acquisition of the skills essential for becoming an effective mentor (Raza and Onyesoh, 2020; Lee et al., 2006). By means of interactions, young mentors acquired organisational insights, including a deeper understanding of the leadership structure and the skills to effectively navigate and accomplish tasks within the organisation (Alvarez et al., 2005). Moreover, mentors also grasped diverse work values and approaches (Clarke et al., 2019; Frey, 2021). For less experienced mentors, the opportunity to engage in a relationship that is more partnership than apprenticeship facilitated open communication (Gündüz and Akşit, 2018). Exchange of ideas contributed to a mentors' feeling of empowerment and RM might expand mentors' intraorganisational network, thus increasing their social capital in the organisation (Augustiniene and Ciuciulkiene, 2013).

By engaging in reverse mentoring, mentors could enhance their personal learning by developing better interpersonal skills like self-disclosure, active listening, empathy and feedback (Lankau and Scandura, 2002). Some graduate students benefit from the relationship or network built with a faculty member in the RM project. For instance, in a reverse mentoring study conducted by researcher Leh in 2005, it was observed that a student mentor secured a full-time role at a different school. Moreover, three student mentors transitioned into positions as adjunct faculty members at universities. Over five student mentors were also extended invitations by faculty members and schools to deliver technology training, for which they received compensation for their services (Leh, 2005).

The seasoned mentee in a reverse mentoring partnership stands to reap advantages, primarily through exposure to the most up-to-date content or technical skills (Raza and Onyesoh, 2020). Furthermore, they can elevate their current leadership skills and experience a renewed sense of enthusiasm (Augustiniene and Ciuciulkiene, 2013). An experienced mentee can expect to derive concrete advantages from a fruitful reverse mentorship. These advantages encompass enhanced research output and the infusion of fresh concepts into the mentees' research work (Gündüz and Akşit, 2018). Additionally, mentees might attain insights into other domains that could pique the interest of their youthful student mentor (Clarke et al., 2019). Equipped with cutting-edge knowledge in innovation, reverse mentors could assume a more engaged role in idea development (Augustiniene and Ciuciulkiene, 2013). Consequently, this dynamic has the potential to foster a

collaborative and highly productive mentoring relationship within the realm of education and research (Clarke et al., 2019).

Contributions and Scope of Future Studies

This literature review draws attention towards the role reverse mentoring can play in higher education. Reverse Mentoring in higher education is an innovative approach to academic and professional development that offers staff a direct line to the students' voices. Reverse mentoring provides an opportunity for the students to share their knowledge of learning at the university with teaching faculty and staff. They present to academics the broad range of computer and mobile apps as well as the websites that they use to obtain knowledge and create learning. The approach is gaining increasing popularity and possesses the capacity to aid educators in comprehending the student perspective, thereby promoting the values of equality, diversity and inclusion throughout universities. This has the potential to contribute towards creating a more creative and fair university environment that benefits everyone. A well-designed reverse mentoring programme holds a range of benefits for the university staff and faculty. In addition to functioning as a platform for knowledge exchange, displaying students' accomplishments and exhibiting skills, reverse mentoring is also being harnessed to address concerns related to diversity and inclusion. This is achieved by fostering enhanced communication and engagement between different generations. Its application involves generating heightened awareness regarding individuals of colour and initiating dialogues pertaining to racial inequality (Peterson and Ramsay, 2021).

An avenue for future research could involve comprehending the diverse organisational culture elements that might exert influence on the adoption of reverse mentoring models. Fostering a positive work culture is crucial for embracing the reverse mentoring model effectively. Subsequent studies might delve into the effects of reverse mentoring on the well-being and job satisfaction of employees as well as students, investigating how mentorship relationships could enhance the overall work environment. Cross-cultural studies and in-depth case studies to observe how reverse mentoring is implemented might be helpful in improving our understanding of reverse mentoring practice. Future studies could be based on the training of the mentors, as well as the exchange of experiences and networking and how that mitigates lack of experience and might enhance the efficiency of mentoring programs. Lastly, performing comparative analyses across distinct sectors, such as private universities versus public universities, could shed light on which sector is deriving the most significant advantages from reverse mentoring initiatives.

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Inclusive leadership in higher education institutions: The effects on innovative behaviour and psychological contracts

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ABSTRACT

Higher education institutions are characterised by generating knowledge and innovation, where teamwork and leadership are key. This paper focuses on inclusive leadership and analyses its impact on organisational conditions (perceived organisational support -POS-) and behavioural results (employees' innovative behaviour and psychological contract breach) in European higher education institutions. Results show that inclusive leadership has a significant, direct and positive effect on employees' innovative behaviour and POS. Inclusive leadership also has an indirect and positive effect on employees' innovative behaviour and an indirect and negative effect on psychological contract breach, both mediated by POS. Some recommendations are provided to European universities to improve their management and results, as well as differentiating themselves from other universities.

Keywords

Inclusive leadership, perceived organisational support, employees' innovative behaviour, psychological contract breach, higher education institutions.

Inclusive leadership in higher education institutions: The effects on innovative behaviour and psychological contracts

Introduction

Higher education institutions are characterised by generating knowledge and innovation, where teamwork and leadership are key. Knowledge is developed in different research projects and transmitted through communities of practices and teaching, especially in science-oriented universities. The way that researchers are led impacts the results obtained by higher education institutions. Therefore, leaders are critical in these institutions as key drivers of their employees' innovative behaviour (Gong et al., 2009). However, leaders in higher education organisations need to renew and rethink traditional management and organisational practices and policies (Aboramadan et al., 2021). Inclusive leadership refers to the behaviours that allow team members to feel included in a group where they can be themselves and be recognised for their contributions and individual talents, regardless of their gender, race, ethnicity, origin, disability, etc. (Aboramadan et al., 2020; Ashikali et al., 2021). Instead of encouraging personnel to adhere to the norms of the dominant groups within a team, inclusive leaders demonstrate openness, interactive communication, accessibility and inclusiveness (Ashikali et al., 2021; Qi et al., 2019). In this way, they better meet the needs of their staff (Hollander, 2009). They consider different perspectives and views to make better decisions by maximising the advantages of diversity. Employees feel they are part of a group contributing to team processes and outcomes without losing their sense of uniqueness (Shore et al., 2011).

As inclusive leadership produces organisational effects on employees and organisations, this study considers perceived organisational support among employees due to the influence of inclusive leaders (Qi et al., 2019). Leaders' supportive behaviours help followers feel that their contributions are well valued and their well-being is important, which should enhance perceived organisational support (Qi et al., 2019) and reduce psychological contract breach.

Higher education researchers should develop innovative behaviour because it leads to new ideas to improve knowledge, work and performance. Innovative behaviour is related to employee creativity, which is a multistage process involving recognising problems, generating ideas, building

support for these ideas, and implementing them (Choi et al., 2017). This study also focuses on employees' innovative behaviour as an attempt to avoid traditional ways of thinking (Aboramodan et al., 2020; Kessel et al., 2012). We identify some of the enablers and predictors of innovative behaviour, such as inclusive leadership and perceived organisational support.

The positive effects of inclusive leadership on employees could affect their psychological contract, reducing contract breach. Moreover, perceived organisational support could mediate between inclusive leadership and psychological contract breach because it increases concern about the staff's welfare and helps employees and organisations to achieve their goals (Eisenberger et al., 1997).

Therefore, we investigate the impact of inclusive leadership on employees' innovative behaviour and psychological contract breach, considering the mediating role of perceived organisational support. It is important to highlight that perceived organisational support decreases the perception of psychological contract breach among employees.

From the social exchange theory (Blau, 1964) and organisational support theory (Eisenberger et al., 1986), and in connection with the behavioural theory of firms (Cyert and March, 1963), a theoretical model has been established, and three objectives are addressed in this study. First, it advances the knowledge about inclusive leadership, analysing its direct effect on organisational conditions (perceived organisational support) and behavioural results (employees' innovative behaviour). Second, it extends the literature on the mediating role of perceived organisational support on psychological contract breach in higher education institutions. The impact of inclusive leadership on reducing psychological contract breach among university professors is a way for universities to become more competitive. Lastly, the findings of this study highlight the impact of inclusive leadership and perceived organisational support on behavioural results (employees' innovative behaviour and psychological contract breach) in European higher education institutions, considering the mediating effect of perceived organisational support.

The main contribution of this study is to take a step forward in considering inclusive leadership and organisational conditions (perceived organisational support) to obtain key behavioural results among academics (improve employees' innovative behaviour and diminish psychological contract breach), which should be the foundation for individual and organisational performance (Huhtala and Parzefall, 2007). We provide a management model to optimise the performance of these institutions and their staff by improving organisational and behavioural conditions.

This study has been carried out to cover the gap in academic behavioural performance optimisation using a new leadership style: inclusive leadership. The growing diversity of academic staff and students, as well as inclusive leadership characteristics, justify its consideration. Furthermore, academic staff must adapt to student diversity, maintaining and improving the effectiveness and quality of teaching and research services. To do this, everyone in charge should display effective leadership (Evans and Chun 2015) to adequately manage this diversity. The lack of an organisational culture, especially in departments, makes the use and management of effective leadership difficult (Evans and Chun 2015). Therefore, this study focuses on inclusive leadership, organisational conditions and academics' behavioural results to shape a high-performance management model.

The paper is structured as follows. First, a literature review is provided to justify the hypotheses proposed. Second, the sample, measures and procedures are explained, followed by the results. Finally, the discussion and conclusions are described, including recommendations, limitations and future research paths.

Theoretical Background

The evolution of leadership theories is based on the social and cultural backgrounds of society. Inclusive leadership appeared in management with Nembhard and Edmondson (2006) and Hollander (2009) when they identified interdependent relationships between leaders and followers fomented by the appreciation of others' contributions. *Inclusive leadership* manages the relationship among different identities efficiently, respecting individuals' diversity and self-value and satisfying people's need for self-enhancement and certainty (Randel et al., 2016). It makes "the positive effect of identity-related diversity" easy (Qi et al., 2022). Furthermore, inclusive leadership encompasses the "leaders who exhibit visibility, accessibility, and availability" while working together with followers (Carmeli et al., 2010), making employees comfortable by downplaying differences in status and power (Hassan and Jiang, 2021). In addition, this type of leadership encourages communication and collaboration, prompting employees and leaders to express their views and opinions (Carmeli et al., 2010) and highlighting the individual value of staff. These effects improve psychological safety

(Detert and Burris, 2007; Mikyoung and Moon, 2019) and lead to positive individual performance (Ahmed et al., 2020).

This variable is also related to the development of management change (Bowers et al., 2012) and employee belongingness (Randel et al., 2016), increasing subordinates' creativity (Zhu et al., 2020) and innovative work behaviour (Javed et al., 2019a and 2019b). Qi et al. (2019) explored the link between inclusive leadership and employees' innovative behaviour, where perceived organisational support was a mediator. In the context of academia, Aboramadan et al. (2020) linked inclusive leadership with extra-role behaviours (organisational citizenship and innovative work behaviour) and with organisational learning as a mediator. Major developments are presented in this study to better understand the impact of inclusive leadership on employees' innovative behaviour and perceived organisational support in academia. Psychological contract breach is also considered because it is critical to high-value performance.

Employees' innovative behaviour considers different activities related to the innovation process (rather than the outcome of the innovation) (Qi et al. 2019), such as idea generation, idea championing, idea promotion, and idea realisation for new processes, techniques, technologies (Qi et al., 2019) and knowledge to enhance business and personal performance. This concept goes beyond creativity (Shin et al., 2017) because it explores opportunities and the production, development and implementation of new ideas and behaviours that lead to organisational changes (Al Darmaki et al., 2020).

In higher education, inclusive leadership encourages innovative work behaviour for many reasons. First, inclusive leaders encourage workers to become involved in innovative processes, namely, research, which is a vital activity in higher education. Second, employees' interests and feelings are highly valued by inclusive leaders (Javed et al., 2019b), so workers develop greater commitment in return (Aboramadan et al., 2020). They become more innovative because their points of view and contributions are valued (Walumbwa et al., 2011). Third, inclusive leaders provide resources (time and information) to foster innovative employee behaviour (Reiter-Palmon and Illies, 2004) and shared knowledge, enhancing autonomy and freedom (Foss et al., 2013). Fourth, inclusive leaders are available and supportive (Ashikali et al., 2021), motivating their followers to become involved in innovative behaviours (Altunoglu and Gürel, 2015). Finally, inclusive leaders create an environment where employees can express their ideas and suggestions (Vladić et al., 2021). They are accessible and open to different proposals, information and feedback (Arnold et al., 2000; Carmeli et al., 2010), giving employees a greater sense of responsibility (Borman and Motowidlo, 1993). Therefore,

inclusive leadership promotes a more innovation-supportive work environment (Carmeli et al., 2010) and encourages innovative behaviour (Randel et al., 2016).

The link between inclusive leadership and employees' innovative behaviour has not been developed in higher education, but it has been studied in telecommunications companies in Vietnam, mediated by person-job fit (Choi et al., 2017); in Chinese service-based organisations (banks, law offices, retail stores), mediated by perceived organisational support (Qi et al., 2019); and in Palestinian universities mediated by organisational learning (Aboramodan et al., 2020). Hence, the following hypothesis is suggested:

H1: Inclusive leadership is positively related to employees' innovative behaviour in higher education.

Perceived organisational support (POS) refers to “the degree to which an individual believes that the organisation cares about his/her values and input, and provides him/her with help and support” (Erdogan and Enders, 2007). It reflects “employees' beliefs regarding how much their respective organisation is committed to them, values their contribution, and cares about their well-being” (Eisenberger et al., 1986). It is a perception of an organisation's commitment to its employees (Zare, 2012). The theory of organisational support is the main conceptual framework of POS.

Inclusive leadership involves favourable treatment that is perceived by employees, such as supervisor support and active listening, and it can increase POS (Kurtessis et al., 2017). Supervisors are an essential source of organisational support because they provide organisational resources and rewards to their subordinates (Wayne et al., 1997). If employees perceive that (inclusive) leaders value their contributions and care about their well-being, they perceive supportive behaviour that could enhance POS. In the case of higher education institutions, where intellectual capital and teaching and researching activities are key, employees' perceptions of open communication, continuous organisational assistance and concern for others' interests (Carmeli et al., 2010) are recognised as critical in favouring POS. Therefore, the following hypothesis is proposed:

H2: Inclusive leadership is positively related to employees' perceived organisational support in higher education.

Considering the norm of reciprocity (as part of the social exchange theory), workers who perceive support from their organisation feel obliged to work hard to achieve its objectives (Eisenberger et al., 1986). In these situations, employees will have more positive work-related attitudes (Trybou et al., 2014), fulfil in-role behaviour better (Barksdale and Werner, 2001) and demonstrate superior work performance (Shanock and Eisenberger, 2002) and extra-role behaviours (Altunoglu and Gürel, 2015). Employees' emotional commitment and sense of responsibility increase altruistic (Janssen, 2003) and innovative behaviour. Creativity and generating, promoting and acting on ideas and concepts can be stimulated by POS, resulting in innovative work behaviour. At the same time, spontaneous problem-solving and decision-making processes are associated with POS (Eisenberger et al., 2002) and lead to innovative behaviour. In academia, the positive effects of POS on innovative academic behaviour may be similar because of the special characteristics of the work (people-intensive professional) and staff. Contrarily, when employees perceive little organisational support, their attachment to innovative processes decreases (Bosnehes and Veenendaal, 2019). Therefore, this study examines the following hypothesis:

H3: Perceived organisational support is positively related to employees' innovative behaviour in higher education.

A *psychological contract* is an agreement between an employee and his/her employer based on their unwritten mutual expectations and subjective and implicit beliefs about their interrelationship (Raulapati et al., 2010; Bankins and Formosa, 2020) regarding practices and policies in the organisation. It also includes a reciprocal exchange agreement, which is predominantly examined between employers and employees (Bankins and Formosa, 2020). The *breach of a psychological contract* from the perspective of employees reflects the failure of the organization to meet one or more obligations (Hattori, 2010) or fulfil its obligations or promises (Robinson and Rousseau, 1994). When this occurs, employees show less organisational commitment, organisational citizenship behaviour, job satisfaction and work performance. Their intentions to leave increase (Chen et al., 2008), with adverse effects for the organisation.

POS plays a critical role (providing assistance and a supportive relationship) in preventing psychological contract breach because it establishes a balance between mutual expectations, beliefs and interrelations based on the norm of reciprocity (social exchange theory). If employees believe that their organisation is committed to them, values their contributions and cares about their

well-being, some psychological contract beliefs are covered by POS, reducing the risk of breach. Both variables highlight social exchange processes in the formation and upkeep of employer-employee relationships. That is, a balance is achieved between employees' efforts on behalf of the organisation and what desirable impersonal and socioemotional resources the organisation is willing and able to give (Shanock and Eisenberger, 2006). However, a vital temporal link must exist between the employee and their organisation. If not, employees will not be aware of POS or the treatment their organisation has given its staff throughout its history (Eisenberger et al., 1986). In return, employees strive to reach organisational goals that reflect their gratitude to the organisation for the support they receive (Aselage and Eisenberger, 2003). Academics need POS and a strong psychological contract to maintain and enhance their performance, especially when facing adversity or failure. Likewise, higher education institutions are interested in retaining knowledge workers (Deas and Coetzee, 2020), paying special attention to the perceptions of the psychological contract of their staff. Therefore, the following hypothesis is suggested:

H4: Perceived organisational support is negatively related to employees' psychological contract breach in higher education.

According to the previous hypotheses, a theoretical model is proposed, as shown in Figure 1. In it, POS plays a critical role because it could be affected by inclusive leadership and could mediate the indirect influence of inclusive leadership on employees' innovative behaviour and psychological contract breach.

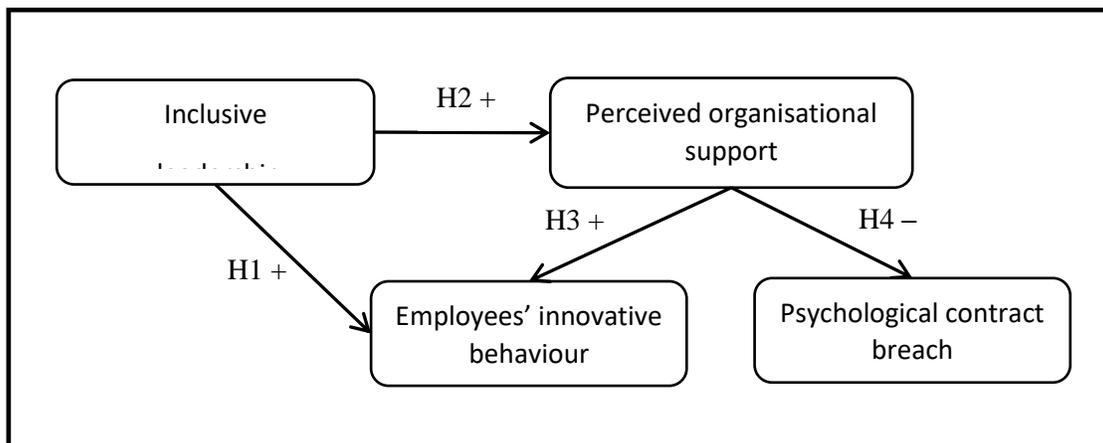


Figure 1. Theoretical model

Methods

Data was collected from various European technical universities through an online questionnaire as part of a collaborative European project. 113 completed questionnaires were obtained between April and May 2022. The sample is comprised of 54% men, 42.5% women and 3.5% without denomination, with an average age of 47.19. 69.9% are Spanish. Most of the sample are professors (15.9%) or associate professors (54.9%) with an average of 15.31 years working in their current institutions. 96.5% of the universities are public.

All of the variables included in the survey were evaluated using previously tested measures on a 5-point Likert scale (1 - strongly disagree; 5 - strongly agree).

Inclusive leadership is assessed with 8 items adapted from the measures used by Aboramadan et al. (2020), Carmeli et al. (2010) and Qi et al. (2019).

Employees' innovative behaviour is measured with 9 items adapted from Aboramadan et al. (2020), Choi et al. (2017), Janssen (2000) and Javed et al. (2019a).

POS is estimated with 7 items following the proposals by Cheng and O-Yang (2018), Eisenberger et al. (1986), Eisenberger et al. (1997) and Qi et al. (2019).

Psychological contract breach is estimated with 4 items adapted from Robinson and Morrison (2000).

All the items of the variables are in Table 1, where mean and standard deviations are included.

A path analysis was developed to test the hypotheses of the theoretical model (Figure 1). That is, to check whether inclusive leadership influences employees' innovative behaviour, POS and psychological contract breach, and whether there is a mediation effect of POS on the relationship between inclusive leadership and employees' innovative behaviour and psychological contract breach. SPSS24 and AMOS18 were used to make all the calculations.

Podsakoff et al.'s (2003) recommendations were followed to minimise common method bias, including a cover letter, separate sections in the survey, and Harman's one-factor analysis (a principal component analysis where unrotated factor solutions are checked). No single factor

emerged (specifically, seven factors), where the first factor accounted for 24.86% of the 80.41% explained variance (<50% of all the variables in the model). Although some common method bias could be found in the data, its effects are minimal (Lindell and Whitney 2001).

Table 1. Descriptive statistics of variables and items

Variable	Items	Mean	Standard deviation
<i>Inclusive Leadership</i>	My leader is open to considering new ideas.	3.96	1.48
	My leader is looking for new opportunities to improve work processes.	3.97	1.50
	My leader is open to discussing the desired goals and new ways of achieving them.	3.92	1.44
	My leader is available for consultation about professional questions and problems.	3.98	1.51
	My leader is an ongoing “presence” in this team-someone who is readily available.	3.83	1.48
	My leader is ready to listen to my requests.	3.94	1.57
	My leader encourages me to consult him/her on emerging issues.	3.76	1.56
	My leader is accessible to discussing emerging problems.	3.90	1.53
<i>Employees’ innovative behaviour</i>	In my higher education institution, I can create new ideas for difficult issues.	3.73	1.20
	In my higher education institution, I can search for new working methods, techniques or instruments.	3.95	1.08
	In my higher education institution, I can generate original solutions to problems.	3.94	1.06
	In my higher education institution, I can mobilise support for innovative ideas.	3.52	1.17
	In my higher education institution, I can acquire approval for innovative ideas.	3.53	1.22
	In my higher education institution, I can inspire enthusiasm among important organisational members about innovative ideas.	3.27	1.25
	In my higher education institution, I can transform innovative ideas into useful applications.	3.26	1.33
	In my higher education institution, I can introduce innovative ideas into the work environment in a systematic way.	3.19	1.24
<i>Perceived Organisational</i>	In my higher education institution, I can evaluate the usefulness of innovative ideas.	3.18	1.27
	My higher education institution cares about my opinions.	3.17	1.30
	My higher education institution really cares about my well-being.	3.28	1.17

Support (POS)	My higher education institution would forgive an honest mistake on my part.	3.40	1.53
	My higher education institution wouldn't take advantage of me	3.37	1.28
	My higher education institution shows a great deal of concern for me.	2.85	1.28
	My higher education institution is willing to help me if I have a special need	3.33	1.23
	My higher education institution takes great pride in my accomplishments at work.	3.47	1.38
	My higher education institution has broken many of its promises to me even though I've upheld my side of our agreement.	2.38	1.31
Psychological contract	My higher education institution makes me very angry.	1.87	1.02
	My higher education institution makes me feel betrayed.	1.88	1.10
	My higher education institution makes me feel extremely frustrated because of the way I have been treated.	1.94	1.11

Results

To obtain the value of each variable, their items were averaged. Descriptive statistics (means and standard deviations) and bivariate correlations are shown in Table 2. Participants perceive medium-high levels of inclusive leadership in their institutions (3.91 out of 5), innovative employee behaviour and POS are not as evident (3.51 and 3.27 respectively), and psychological contract breach is not prevalent (2.27). The correlations among the variables are high, especially that between innovative employee behaviour and POS. We can also highlight the negative relation between psychological contract breach and the rest of the variables considered.

Table 2 also includes the Cronbach's alpha of each variable with values between .744 and .895 (higher than .70), which is an acceptable level of reliability and internal consistency (Hair et al., 2009).

A confirmatory factor analysis (CFA) with AMOS18 was performed to confirm that the items used to measure one variable did not load significantly onto another. Table 2 details the composite

reliability (CR), which is above 0.7 for all the variables, and the convergent validity through average variance extracted (AVE), which is above 0.5 and lower than CR, indicating that the measures used are reliable (Hair et al., 2009).

Table 2. Descriptive, reliability and validity statistics and bivariate correlations.

	Mean (Standard deviation)	Cronbach 's alpha	AVE	CR	1	2	3	4
1. <i>Inclusive leadership</i>	3.91 (1.38)	.973	.895	.986	-			
2. <i>Employees' innovative behaviour</i>	3.51 (1.01)	.946	.782	.970	.516** *	-		
3. <i>Perceived organisational support</i>	3.27 (1.07)	.917	.744	.952	.481** *	.709** *	-	
4. <i>Psychological contract breach</i>	2.27 (.75)	.915	.847	.957	- .204**	- .251**	-.313 ***	-

*** p<0.001; **p<0.05; *p<0.1

A path analysis was developed to test the hypothesis following the theoretical model established. The results are shown in Table 3, where the good fit of the model is tested (Arbuckle, 2008).

Table 3. Path analysis results.

Relationship	Standardised regression coefficient	Standard error	t	p-value
<i>Inclusive leadership → E. Innovative Behaviour</i>	.227	.053	3.108	.002
<i>Inclusive Leadership → POS</i>	.481	.064	5.810	.000
<i>POS → E. Innovative Behaviour</i>	.600	.068	8.238	.000
<i>POS → Psychological Contract Breach</i>	-.313	.062	-3.489	.000

Model fit	χ^2	df	P	GFI	NFI	CFI	PNFI	RMSEA	Hoelter ,01
	.545	2	.761	.998	.996	1	.332	.000	1893

Regarding the relationships, inclusive leadership has a significant and positive effect on employees' innovative behaviour and POS, so H1 and H2 are accepted. The direct and positive effect of POS on innovative behaviour is significant (confirming H3), and its direct and negative effect on psychological contract breach (better POS equals less psychological contract breach) is also significant (confirming H4).

The indirect effects mediated by POS were also checked by bootstrapping 5,000 samples at a confidence level of 95%, as shown in Table 4. Both are significant and important, showing its mediating effect.

Table 4. Indirect effects (IE) results.

Relationship	Mediating variable	Standardised regression coefficient IE	p-value	95% confidence interval
Inclusive leadership → E. Innovative Behaviour	POS	.289	.000	(.189 ~ .398)

Inclusive Leadership → Psychological Contract Breach	POS	-0.151	.005	(-.259 ~ -.048)
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The predictive power of the model for employees' innovative behaviour is good because 54.3% (sample squared multiple correlation coefficient, R²) of the variation of this variable is explained by inclusive leadership and POS. In addition, 23.2% of the variation of POS is explained by inclusive leadership. Only 10% of the variation of psychological contract breach is explained by inclusive leadership and POS. In the latter case, more research is needed.

Discussion and conclusions

Higher education institutions are key to generating knowledge and training future professionals, which is reflected in the values they transmit and the actions they carry out. Openness, inclusiveness, accessibility and interactive communication are characteristics of inclusive leadership (Ashikali et al., 2021; Qi et al., 2019) and encourage the integration of diversity in these institutions. The recognition of team members' contributions and talents regardless of their gender, race, ethnicity, origin, or disability enhances employee performance (innovation, patents, research published in journals, etc.).

This paper analyses the impact of inclusive leadership on organisational conditions and behavioural results in European higher education institutions. Results show that inclusive leadership has a significant, direct and positive effect on employees' innovative behaviour and POS. Inclusive leadership also has an indirect and positive effect on employees' innovative behaviour and an indirect and negative effect on psychological contract breach, both mediated by POS.

The significant relationship between inclusive leadership and employees' innovative behaviour in the higher education context confirms what Aboramadan et al. (2020), Carmeli et al. (2010), Qi et al. (2019) and Randel et al. (2016) have found. Inclusive leaders are accessible and open to considering new ideas and discussing desired goals and new ways of achieving them, looking for opportunities to enhance work processes and develop talent. This has an impact on the autonomy and freedom of academics in discovering original solutions to difficult issues, looking for new working instruments, techniques or methods, or converting innovative ideas into useful knowledge and applications, inspiring enthusiasm (Aboramadan et al., 2020; Choi et al., 2017; Javed et al., 2019a).

Likewise, these leaders provide enough resources to improve innovative behaviours (Reiter-Palmon and Illies, 2004), which is critical in academic work and performance.

Inclusive leadership also generates better POS, confirming the ideas of Carmeli et al. (2010) and Qi et al. (2019). The treatment, resources, help and rewards offered by inclusive leaders contribute to making employees feel that their organisation cares about them and their well-being, is willing to help them, forgives honest mistakes, takes pride in their accomplishments and talents at work and would not take advantage of them (Cheng and O-Yang, 2018; Qi et al., 2019). These factors contribute to creating an innovative environment in higher education institutions.

Surprisingly, the indirect effect between inclusive leadership and employees' innovative behaviour mediated by POS is significant (standardised regression coefficient .289), although the main relation does not lose its significance. This result is similar to that obtained by Qi et al. (2019). However, we consider that the mediation is partial because the impact of inclusive leadership on employees' innovative behaviour is slight (from .516 of the total effect to .227) but still different from zero when the mediator is introduced (Kenny, 2021). We also complete the results offered by Qi et al. (2019) by developing our study in other service-based organisations (higher education institutions) in Europe and considering psychological contract breach.

Additionally, Table 3 shows the strong relation between POS and employees' innovative behaviour (standardised regression coefficient: .600). Employees who perceive strong POS may be more enthusiastic about working, developing their talents and knowledge, solving problems and making decisions (Eisenberger et al., 2002). They will consequently fulfil their in-role behaviour (Barksdale and Werner, 2001), enhance their work-related attitudes (Trybou et al., 2014), increase their work performance (Shanock and Eisenberger, 2002) and develop more creative and innovative behaviour and work.

We also confirm that POS has a direct and negative effect on psychological contract breach. This reflects that the more employees perceive their organisation's care, help and pride in them, the less psychological contract breach is prevalent. The reason for this is that listening and considering employees' opinions and worries can minimise broken promises and feelings of anger, betrayal and frustration (Aselage and Eisenberger, 2003; Robinson and Morrison, 2000). The balance between mutual beliefs, expectations and interrelations may play an important role in the relationship between employees and higher education institutions. Employees can feel encouraged to become involved and universities can retain talented and knowledgeable staff (Deas and Coetzee, 2020). Both aspects are critical for these institutions.

As previously stated, there is a significant and indirect effect between inclusive leadership and psychological contract breach mediated by POS. In this case, the mediation effect is full. The direct impact of inclusive leadership on psychological contract breach is $-.204$ without considering POS. However, when POS is introduced into the model, the significance of the main relationship is lost. Therefore, leaders who are available to their subordinates and communicate honestly, balance the expectations of the organisation and its employees helping to lower the incidence of psychological contract breach.

All these results advance the theories of organisational support, social exchange and organisational behaviour, highlighting the importance of inclusive leadership and the mediating role of POS. Inclusive leadership must be promoted in higher education institutions due to the effects it has on behavioural results and employee support. Therefore, these variables and their interrelationships (Figure 1) should be integrated into management models to optimise the performance of these institutions and their staff.

These conclusions may help European higher education institutions to improve their management and results, thereby differentiating themselves from other universities by implementing programmes that encourage inclusive leadership and organisational support.

Some *recommendations* are proposed at three levels: organisational, team and individual, to achieve this. At the organisational level, higher education institutions should make inclusive leadership a part of their vision and strategy, articulating a compelling narrative about why inclusive leadership is critical to academic success (its effects on innovative behaviour, POS and psychological contract breach). Additionally, integrating inclusive leadership into a global mobility strategy or global research strategy for staff is necessary due to its positive effects on performance. Therefore, inclusive leadership should be part of an organisation's planning, goals, diversity and inclusion policies and actions. Linking Key Performance Indicators (KPIs) to diversity outcomes and inclusive behaviours (for example, with a survey about leadership commitment to diversity and inclusion among employees or international collaborations in research projects and papers) may be a way to measure the goals and objectives established.

Another important step at the organisational level is to foster an inclusive culture that encourages collaborative, trustworthy, relational, and authentic values as well as social justice among employees. Developing these values should help to create an inclusive environment where two-way communication empowers and encourages individuals to contribute to decision-making, openly participate in discussions or join in more internal research projects. Friction and criticism will appear,

but employees should understand that this is a part of the learning process without undermining the value of people's contributions and talents. Transparent, consistent and informed decision-making is a way to reduce non-constructive criticism.

At the team and individual levels, some intersectionality and soft skills must be worked on through the training offered by higher education institutions. Among the most important skills are communication, active listening, self-awareness (especially of unconscious biases that might exist toward others), self-confidence (be authentic or express yourself as you are), empathy and conflict management. These soft skills also influence values such as fairness and respect. Speaking up to challenge inappropriate behaviours or discriminatory situations in a direct but respectful way and being able to value all members' contributions equally are manifestations of these skills. Teamwork, creativity and resilience are also critical soft skills that foster inclusive leadership and employees' innovative behaviour.

For team leaders, training may help them to acquire tools to support their diverse teams, considering their team members' character, prior experiences and worldviews in collaborative decision-making. It is key to provide regular opportunities for employees to voice their needs and concerns to promote their full participation and feedback. Their contributions should be acknowledged so their new ideas can be transformed into useful knowledge and applications and their proposals implemented whenever possible.

In the case of individuals, especially professors, inclusive leadership, cultural values and soft skills should be applied not only to co-workers and teams but also to students and included in lectures as part of transversal content.

Limitations and Future Studies

This study has some limitations. It would be interesting to increase the sample, especially to non-Spanish higher education institutions. Demographic variables, such as age or nationality, should be considered in the model in case of variations, especially from a gender perspective. Opening this research to the industrial sector could also be a future research path.

To sum up, strengthening inclusive leadership will help higher education institutions foster innovative behaviour among their workforce and retain talented staff (diminishing psychological contract breach). The support given by leaders and institutions to obtain these results is vital.

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Advancing Interpretative Phenomenological Analysis as a novel methodological tool in deepening insights and amplifying the voices of Women Mentees in Leadership Development Programmes in Irish Higher Education Institutions

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Abstract

Positioned within the field of Educational Leadership, this paper asserts the value of adopting Interpretative Phenomenological Analysis (IPA), as a qualitative methodological approach to explore and unravel the lived experience of women mentees (academics, professional, management and support services staff) in leadership mentoring relationships in an Irish Higher Education context.

The research context focuses on the intersection of leadership mentoring and gender in Irish academia, prompted by the under-representation of women in senior positions, coupled with IPA as an underutilised methodology in educational leadership research.

Women's' voices are an important part of the process of consciousness-raising in discourses within Educational Leadership, of making what is invisible, visible; more especially in terms of enablers and barriers to women's career advancement. Giving time and space to hear these voices, through the utility of IPA, allows their stories to unfold, by attending to their experiences, understanding, perceptions and views, of being in a leadership mentoring relationship. This paper showcases five distinctive features of IPA: (a) epistemological grounding, (b) amplifying individual voice, (c) inductive deepening of insights, (d) versatility and flexibility, and (e) co-creation between researcher and women mentees, to reveal what it is like for these women. In the process of this unveiling, IPA can make an iridescent contribution to the discourse on gender equality, leadership development, policy practice and action within an Irish higher education context.

Keywords

Gender; higher education; IPA; leadership mentoring; gender

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Introduction

The global pandemic has precipitated unforeseen disruption with lasting changes in the world of work and education, in particular, how we communicate, connect, collaborate, interact and lead, demanding changes for individuals, both men and women, organisations and their leadership practices. 'Existing leadership and management models', Campbell-Stephens (2022:114) asserts, 'are incapable of taking us into an uncertain future'. Mentoring is largely applauded as a key ingredient for development of individuals in the workplace (Eby & Robertson, 2020), often cited as 'an important workplace learning strategy' (Ellinger, 2002:15). With quantitative studies dominating extant mentoring scholarship, (Wilson, 2022), what can be observed is a paucity of studies (Allen & Eby, 2007; Ragins & Kram, 2007) illuminating the experience of women mentees in leadership mentoring relationships in Irish higher education. The rationale for spotlighting women mentees are threefold:

Firstly, the OECD (2017:17) forcefully stated that 'gender inequality pervades all aspects of social and economic life, and affects countries at all levels of development'. Consonant with this assertion, the under-representation of women in senior leadership positions in higher education is one issue highlighted by the National Review of Gender Equality in Irish Higher Education Institutions (HEA, 2016). Drawing on data from the global U-Multirank monitor (n.d.), O'Connor and Hazelkorn (2022) affirm that 'stereotypes and gender bias persist in higher education globally' where 'women are still under-represented as one goes up the academic ladder'. However, it must be acknowledged that some women make strategic choices not to seek advancement to senior leadership levels, choosing another path, such as professorship (Harford, 2020). Mentoring has been identified as an effective career development strategy for women in higher education (HEA, 2018), widely acclaimed to be 'one of the most fulfilling and transformative relationships' (Ragins, 2016:228) experienced at work. Despite some advancements in gender equality, higher education and society, in general, continue to grapple with some questions and challenges relating to the mentoring context which have persisted over the decades – the need 'to understand more thoroughly the relationship between women and mentors' (Chandler, 1996:80); and the need to

better understand the 'black box' of mentoring (Chandler, Kram & Yip, 2011:536) in such high-quality mentoring relationships that promote 'mutual growth, learning and development within the career context' (Ragins, 2012:519).

Secondly, aligned with the wealth of literature reinforcing the value of mentoring to those involved (see for example, Allen *et al.*, 2004; Baugh & Sullivan, 2005; Allen *et al.*, 2006; Ghosh & Reio, 2013; Scandura, 1992; De Vries *et al.*, 2006), mentoring is certainly receiving more attention as a tool of critical importance to help the strategic advancement of women (Harford, 2020; HEA, 2018; Grant & Ghee, 2015), in particular increasingly being integrated into human resource interventions within organisations (Fowler *et al.*, 2021:59).

Thirdly, the emergence of the positive psychology movement (Seligman & Csikszentmihalyi, 2000) set the foundation for envisioning positive relationships at work as 'a rich new interdisciplinary domain of inquiry' (Dutton & Ragins, 2007:3) where relationships are viewed as "front and center" in organizational life' (Dutton & Ragins, 2007:4). Foregrounding relationships in organisational studies, shifting the focus to relationships between people at work, concurs with Gilligan's (2000:xviii) aims 'to see difference as a marker of the human condition rather than as a problem to be solved', setting the stage for exploring organisational phenomena of interest through the detailed examination of individual lived experience.

Positioned within the field of Educational Leadership (Gunter, 2022), concerned with 'leadership as a social practice of influence' in addition to treating 'leadership as position' (Showunmi & Moorosi, 2022:2), this paper asserts the value of Interpretative Phenomenological Analysis (IPA), an underutilised methodology in educational leadership research, to explore the lived experience of women mentees (academics, professional, management and support services staff) participating in leadership mentoring within an Irish Higher Education Institution (HEI) context. IPA lends itself as an appropriate methodology to reveal the meaning-making bestowed on these experiences, exploring what 'may drive or depress women's aspirations and career orientations' (Morley, 2013:2), and the opening of the 'black box' of mentoring (Chandler *et al.*, 2011).

The distinctiveness of IPA, an integrative hermeneutic phenomenology, emerging as 'a dominant qualitative research methodology in many academic disciplines' (Tuffour, 2017:1), creates a context for this paper as a tool to provide rich insights into the lived experiences of research participants. Its distinctiveness lies in the commitment 'to exploring, describing, interpreting and situating the means by which participants make sense of their experiences' (Smith, Flowers & Larkin, 2022:35), in essence, exploring what matters and what is significant to research participants within the context of the phenomenon being studied, which in this study is mentoring. IPA provides for deepening the understanding of the process and content dimensions of

leadership mentoring for women mentees within Irish higher education.

Engaging IPA moves beyond being purely phenomenological by drawing on two additional touchstones of the philosophy of knowledge, namely hermeneutics and idiography, which contribute to the theoretical underpinning distinctiveness of IPA. Chandler, Kram and Yip (2011:555) highlight a reliance on 'single-source (protégé)' studies focusing on individual differences in mentee and mentor and dyadic factors, such as relationship quality. Mentoring outcomes are determined by more than individual and dyad factors - such as influences of others in a developmental network, the workplace in which individual is a part of, environmental factors - which Chandler, Kram and Yip (2011:520) assert 'enable, constrain, or shape mentoring and other developmental relationships'. Thus, the emerging ecological systems perspective (Bronfenbrenner, 1976) on mentoring at work advocated by Chandler, Kram and Yip (2011) offers a platform for engaging a qualitative methodology foregrounding 'the importance of meaning, context and nuance' (Smith *et al.*, 2022:119), adding to the appeal of engaging in-depth interviews and IPA to get to the essence of this phenomenon.

To explore this interplay between leadership mentoring and gender, the study invites women mentees, and their mentor partner, to share with the researcher their lived experience of being in a leadership mentoring programme. This approach is consistent with McIntosh's (2010:5) assertions that '...opinions invite argumentation. Telling about experience invites listening. Opinions tend to bring on conflict, whereas shared experiences tend to elicit curiosity and empathy'. Therein lies the initial attraction of IPA as this study aims to '*make sense of experience from someone else's perspective*' (Smith *et al.*, 2022:119), attending to both the individual participant account and the similarities and differences across participant accounts.

Women's' voices are an important part of the process of consciousness-raising in the discourse of making what is invisible, visible; more especially in terms of enablers and barriers to women's career advancement. Widening the perspective of what it is like inhabiting different worlds, and 'bringing women's voices into the open', Gilligan (2000:xxvii) asserts, contributes to 'the on-going process of changing the voice of the world, thus asserting a new conversation'. To more appropriately 'portray the very texture and fabric of many lives, in all of their richness and variation' (Miller, 1986:ix), there is a need to elaborate on the nature, meaning, behaviours, emotional responses, complexities and ambiguities of women in a leadership mentoring programme (Burton *et al.*, 2015; Eisikovits & Koren, 2010; Antoine, *et al.*, 2018). However, research with this qualitative undertone is scant and it is here that IPA asserts its real value.

Emergence of IPA

IPA came to prominence as a qualitative research methodology in the latter part of the twentieth century (Smith, 1996), with particular attention to the field of health psychology. Since its inception, IPA continues to evolve and develop as a methodology (Smith & Eatough, 2019), spanning many fields. In more recent years, expanding into other areas of scholarship, for example, sports psychology (Sandardos & Chambers, 2019; Bentzen *et al.*, 2020; Brown *et al.*, 2018); engineering education (Kirn *et al.*, 2019); workplace learning and development (Ghosh & Reio, 2013; Sengupta *et al.*, 2022); couple and family therapy (Allan & Eatough, 2016); contemporary dance education (Clements & Redding, 2020). IPA's 'scope and influence have increased substantially' (Smith & Eatough, 2019:163), as it becomes 'a well-established member of the qualitative methods repertoire' (Nizza *et al.*, 2021:1).

Underpinning the qualitative research approach of IPA, developed initially within the field of health psychology (Smith, 1996), are the theoretical perspectives of phenomenology, hermeneutics, and idiography. The methodological *fit* between IPA and experiences of leadership mentoring, posited here, is anchored in the *double hermeneutic*, the engagement of the researcher in making sense of the women mentees, the co-researchers, sense making. It is this holistic analytical interpretation, the combination of interpretation and reflection demanded by IPA, which is central to the dynamic relationship between the *part* and the *whole* (Smith et al., 2012). The *part* is the researchers' encounter with each participant, and the *whole* draws on the breadth and depth of the researchers' knowledge and experience.

Reflecting on the development of IPA and its contribution to qualitative psychology almost two decades ago, Smith (2004:39) outlined the key characteristic features of IPA as "idiographic, inductive and interrogative". Featuring in the distinctiveness of IPA set out in this paper are two complementary commitments of IPA, emphasised by Larkin, Watts and Clifton (2006). Firstly, the phenomenological aspect, the *P* of IPA, giving voice to participant's concerns, and secondly, the interpretative aspect, the *I* of IPA, making sense of these concerns from a psychological perspective. In addition, a number of key quality indicators are highlighted by Nizza, Farr and Smith (2021:1): 'constructing a compelling, unfolding narrative; developing a vigorous experiential account; close analytic reading of participants' words; attending to convergence and divergence'. Acknowledging that differences exist in qualitative methodologies, Yardley (2000:215) offers some further 'open-ended, flexible principles' (p. 215), 'sensitivity to context, commitment and rigour; transparency and coherence; impact and importance' - to be embraced as a guide to navigating quality in a qualitative study. Each of these principles are accounted for in this IPA study. Firstly, *sensitivity to context* is illustrated by the focus on women's voices; secondly, *commitment and*

rigour is embedded in IPA's triad of commitments - idiographic, hermeneutic and phenomenological; thirdly, the iterative and inductive analytic process directing the researcher's gaze from single participant case to cross-cases, analysing convergence and divergence while engaging in reflexivity are central to *transparency and coherence* of this IPA study; and finally, presenting new knowledge on mentoring, the phenomenon being studied, addresses Yardley's (2000) principle of *impact and importance* through the inductive deepening of insights.

IPA, Mentoring and Gender

Voice, a 'powerful psychological instrument and channel, connecting inner and outer worlds' (Gilligan, 2000:xvi), is the central source of knowledge in this study to understand what it is like for women mentees in a leadership mentoring programme. Gilligan (2000:xvi) asserts that 'to have a voice is to be human. To have something to say is to be a person. But speaking depends on listening and being heard; it is an intensely relational act', reinforcing the multi-modality of understanding individual 'relatedness-to-the-world' (Larkin, Watts, & Clifton, 2006:106), fundamental to IPA.

There exists a paucity of women's voices in mentoring scholarship in an Irish higher education context, since Levinson's groundbreaking classic *The Seasons of a Man's Life* (Levinson et al., 1978), a platform from which mentoring research emerged in the seminal work of Kathy Kram (1985; 1983). Initially considering a sample to include twenty men and twenty women, Levinson's 'intense desire to understand his own adult development' (Levinson & Levinson, 1996:ix) informed his final decision to study men rather than women, highlighting 'it is essential to study the adult development of both genders if we are to understand either' (p. x). Acknowledging that 'a strongly male-centred view of adult life has for centuries been prevalent in our scientific and cultural institutions' (Levinson & Levinson, 1996:x), Daniel Levinson conducted a second parallel study of women. This second study, aiming 'to tap as directly as possible into the lives of women' (p. x), involving an 'in-depth exploration' (Levinson & Levinson, 1996:4) of the lives of forty-five women, using Intensive Biographical Interviewing to 'help the participant give a fuller, more coherent and more textured account' (Levinson & Levinson, 1996:9), culminated in *The Seasons of a Woman's Life*, completed by his wife, after his passing in 1994. The dominant-subordinate situation influencing the direction of Levinson's work, permeating history, 'was – and – is depriving and distorting to members of both sexes, but in different ways for each' (Miller, 1986:xix), amplified by 'theories in which men's experiences stands for all human experience - theories which eclipse the lives of women and shut out women's voices' (Gilligan, 2000:xiii). Hearing 'women's and men's voices differently' (p. xiv), for Gilligan (2000:xiv), 'it was concern about relationship that made

women's voice sound "different" within a world that was preoccupied with separation and obsessed with creating and maintaining boundaries between people'. Understanding human relations, the work of Carol Gilligan asserts, reveals insights into human living and human being in the world, 'because people's lives are deeply connected, psychologically, economically and politically '(2000:xiv). Advancing an understanding of such human relations, this paper advocates that the emergence of IPA, anchored in philosophical commitments informed by, for example, Heidegger's (1927) 'being-in-the-world', and the situated and interpretative nature of this 'relatedness-to-the world' (Smith et al., 2022:13), aligned with Husserl's (1927) concern to 'find the essence of the experience' (Smith et al., 2022:11) by *going back to the thing itself*, allows the researcher tap into, as directly as possible, this nuanced experience of individual participants. One launchpad for the approach to this research is the work of Jean Baker Miller (1986), highlighting the wealth of new knowledge on the psychology of women contributed during the latter decades of the twentieth century, describing 'women's lives and women's development in the terms in which it is lived rather than to force it into categories which we have inherited, categories that originated in the attempt by men to describe all of life' (Miller, 1986, p. xviii). Much of this *new knowledge* (Miller, 1982; Surrey, 1984; Levinson & Levinson, 1996; Gilligan, 2000), focusing on women's active participation in the development of others (Miller, 1986:xx) illuminating women's use of power, has scope for more visibility in contemporary mentoring scholarship to better understand women's experiences as a mentee. Consistent with leadership historically being associated with men (Shah, 2022:58), adopting and showcasing IPA offers one way to unveil such understanding of what it is like for women in leadership mentoring programmes.

Leveraging IPA in Educational Leadership Research

As advocated by Farrell (2020:2), phenomenological research approaches, enable 'researchers access a wealth of valuable information and understanding' about the lived experience of a particular phenomenon, a commitment of IPA, where the researcher is committed to learning from these experiences of others, which 'is essential for education researchers' Farrell (2020:1). Surprisingly, adopting a methodology to 'deepen our Understanding (with a capital U) of the experiences of others' (Farrell, 2020:1), phenomenological research, remains underrepresented in education research, thus missing opportunities to augment research and practice within the sphere of education (Farrell, 2020). Grasping an opportunity to fill this aforementioned void, this paper advocates embracing this qualitative approach of IPA to give voice to women mentees within this research context.

In a review of mentoring literature from 1980 to 2009, Haggard *et al.* (2011:294), in their work, posit a number of key characteristics distinguishing a mentoring relationship from other forms of interpersonal relationships, namely, 'reciprocity, developmental benefits, and regular/consistent interaction'. Observing a continuum of mentoring relationship quality from effective to dysfunctional, the authors note that research examining benefits, not problems, dominates mentoring scholarship. Arguing that one definition is not desirable or even possible (Haggard *et al.*, 2011) creates a space for a qualitative focus that 'directs our analytic attention towards our participants' attempts to make sense of their experiences' (Smith *et al.*, 2022:75) bringing the utility of IPA to mentoring scholarship.

Collecting participant data via in-depth interviews, foregrounds for the researcher interviewer, 'the importance of meaning, context and nuance' (Smith *et al.*, 2022:119), providing deep insights into the lived experiences of these individuals. The distinctiveness of IPA for unravelling these first-person accounts to reveal the essence of mentoring experiences are multiplicitous: having a theoretical underpinning; amplifying a single voice; inductive deepening of insights; versatility and flexibility; and, enabling co-creation between researcher and participant - see figure 1.

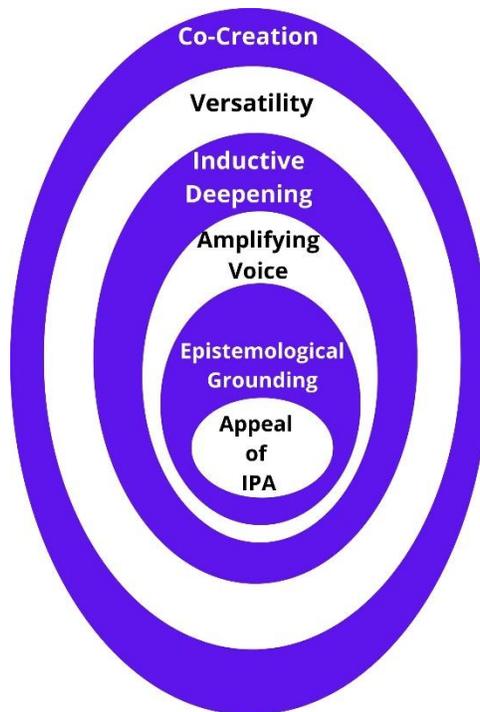


Figure 1. The appeal of IPA

Epistemological grounding – triad of IPA

The intertwining of three theoretical foundations of phenomenology, hermeneutics and idiography, can be considered a uniqueness of this IPA approach. Phenomenology, as a philosophical approach concerned with the study of lived experience, represented by the *P* within IPA, requires the researcher to get 'experience-near' (Boden *et al.*, 2019:218) to capture rich content, "uniquely embodied, situated and perspectival" (Smith *et al.*, 2012:29), becoming the focii of interpretation. This process of engagement and interpretation, the *I* of IPA, comprises a dual lens, firstly, the participant making sense of their experience, and, secondly, the researcher making sense of the participant sense-making, there being no *I* without the *P*. In this, lies the second theoretical underpinning of IPA, namely hermeneutics, also known as the theory of interpretation, represented in the double hermeneutic of both participant and researcher's involvement in sense-making of the lived experience. Idiography, the third theoretical influence on IPA, is concerned with the focus on the individual participant, rather than a 'nomothetic' focus, which Smith *et al.* (2022:24) argue is 'concerned with making claims at the group or population level'. To meet this idiographic commitment, "a rich detailed first-person account" (Smith *et al.*, 2022:53) of participant experiences is essential.

While IPA is comparable to other qualitative approaches, for example, discourse analysis and IPA are 'heavily linguistically based approaches' (Smith, 2011b:11), the distinctiveness of IPA is an amalgam of the first hand account of the participant foregrounding the embodiment, emotional response and sense-making of this experience. In contrast, Smith (2011b:10) asserts that the concern of discursive approaches is 'the linguistic resources participants are drawing on in order to provide accounts of experience and/or the conversational features occurring while giving that account'.

The methodological *fit* between IPA, positioned as 'an integrative approach' (Smith *et al.*, 2022: 133), and women's experiences of leadership mentoring is centred, in particular, around the idiographic and hermeneutic theoretical underpinnings – 'without phenomenology, there would be nothing to interpret; without the hermeneutics, the phenomenon would not be seen' (Smith *et al.*, 2022:31). As a qualitative approach to creating knowledge, IPA moves beyond phenomenological and it 'is distinctive because of its combination of psychological interpretative, and idiographic components' (Basini *et al.*, 2017). This conjoining of elements challenges both participant and researcher in their reflective and interpretative endeavours for deep learning. It is the active listening to human lived experience of the phenomenon being studied, looking deeper at what is being said and how it is being said – what are these women mentees trying to say – converging

and diverging from the everydayness of the phenomenon, that brings this new knowledge into the social narrative.

Although the theoretical terminology may appear daunting on first reading for the novice IPA researcher, persistently engaging with the practice of IPA, interspersed with multiple readings of *Interpretative Phenomenological Analysis Theory, Method and Research* (Smith et al., 2022), becomes a growth-fostering experience for self, researcher and the phenomenon being studied. Undertaking a pilot study of one or two sample participants is one way to experience the challenges and gifts, the nuts and bolts, of doing IPA, before embarking on recruiting a homogenous sample to address research question(s).

Amplifying Individual Voice

Fundamental to IPA is exploring an in-depth account that privileges the individual participant, the participant being the 'experiential expert' (Smith & Osborn, 2003). It is in the unpredictable world of in-depth interviewing - 'an integral part of the inductive principles of phenomenological interviewing' (Smith *et al.*, 2022: 62) - where key features of IPA, a 'focus on personal meaning and sense-making in a particular context, for people who share a particular experience' (Smith *et al.*, 2012:45), can be unveiled.

Giving voice to participants, understanding participant's experiences of the phenomenon being studied is the idiographic component of IPA, getting an insider perspective on what it is like to be in a leadership mentoring programme. Anchored within the idiographic mode of inquiry, treating 'in-depth first-person accounts as data' (Smith *et al.*, 2022:119), each mentee is interviewed, the interview transcript transcribed verbatim and pseudonymised before embarking on analysis. Smith (2011a:6) asserts the importance of a focus on a single extract, which can have 'a significance completely disproportionate to its size', unearthing a *gem* which can play 'an illuminative role in a research study'. Being aware of the continuum of gems suggested by Smith (2011a:13) – shining ('already clearly apparent'); suggestive ('something needs attention'); secret ('lots of peering to uncover') – which can feature in a single case, or none, demands the IPA researcher be awake to their presence and potential, in particular during hermeneutic interpretation of a transcript.

The analysis begins by examining a single participant case where researcher interpretation comes to the fore – making sense of the participant making sense of their leadership mentoring experiences, the double hermeneutic commitment of IPA in action – resulting in a number of Personal Experiential Themes (PETs) for each participant mentee. These two layers of interpretation operationalise the dual aspect of the / of IPA, the interpretative nature of participants

making sense of their experiences, followed by 'analysis as a systematic attempt at making sense (e.g. via synthesizing, abstracting, contextualizing, analogizing, or illuminating meaning) of the experiential claims and concerns of participants' (Loaring *et al.*, 2015:427).

The 'doing' of IPA, through in-depth interviews, demands active listening from the researcher, consistently following participant concerns and remembering the experiential expert is sitting opposite in the interview space. To amplify the voice of each participant requires the researcher to adopt multiple lenses when reading the transcript in order to understand, make sense and express what concerns each participant. Firstly, a descriptive lens as a way to summarise what the participant has said and describe what matters to them, for example, 'events, experiences, processes, locations, principles..' (Smith & Nizza, 2022:36). Secondly, adopting a linguistic lens, looking closely at the words used by participant and the way they are spoken, for example 'pronouns, verb tenses, pauses, laughter, repetitions, hesitations, and tone..' (p. 36). Thirdly, a conceptual lens taking the form of questions 'initiated or prompted by your curious reading of what the participant is actually saying' (p. 38). Such exploratory noting of each verbatim transcript informs the development of Personal Experiential Statements (PESs), which clustered together result in a number of Personal Experiential Themes (PETs) for each participant (for example, see Figure 2).



Figure 2. Single case analysis

Inductive deepening of insights

IPA requires the researcher to systematically and rigorously engage in an analytical process which evolves as the researcher travels the research journey. The essence of ‘its analytic focus’ (Smith *et al.*, 2022:75) is characterised by the flexible application of a set of common processes and principles, not following a prescribed single method nor cookbook guidelines. IPA emphasises exploring the convergence and divergence of individual personal lived experiences to get to the essence of the phenomenon being studied, with an audit trail to trace the findings back to individual transcripts. Figure 3 illustrates the iteration of steps, reflection and reflexivity to bring together the Personal Experiential Themes (PETs) of multiple cases. The resulting Group Experiential Themes (GETs) capture within case and across case themes, thus deepening the insights into the phenomenon being studied, consistently drawing from the voice of individual women mentees.

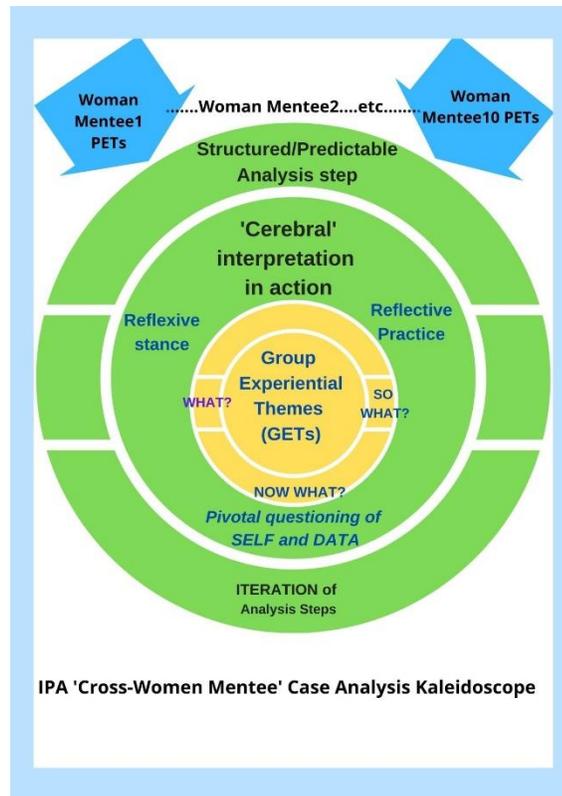


Figure 3. From PETS to GETs

Attending to convergence and divergence ‘allows researchers to illustrate representation, prevalence and variability within the analysis’ (Nizza *et al.*, 2021:376). Following this in-depth analysis of each case, the forensic search for patterns across participants balances convergence and divergence within the sample of women mentees, ‘not only presenting both shared themes but also pointing to the particular way in which these themes play out for individuals’ (Smith, 2011b:10).

Being data driven, inductive by nature, not testing hypotheses nor trying to fit the experience into current conceptualisations or predefined categories (Smith *et al.*, 2012), going back to the everydayness of ‘the thing itself’, its ‘relatedness-back-to-itself’ (Husserl, 1927:10), creates an opportunity for novel findings, and another way of knowing to contribute to the enrichment of the field of education research and practice (Farrell, 2020). Adapting the Johari Window (Luft & Ingham, 1955; Oliver & Duncan, 2019) is one way to make sense of and to illustrate a distinction

between the different sources of this *new* knowledge that can be captured in emerging patterns through IPA analysis – see figure 4.

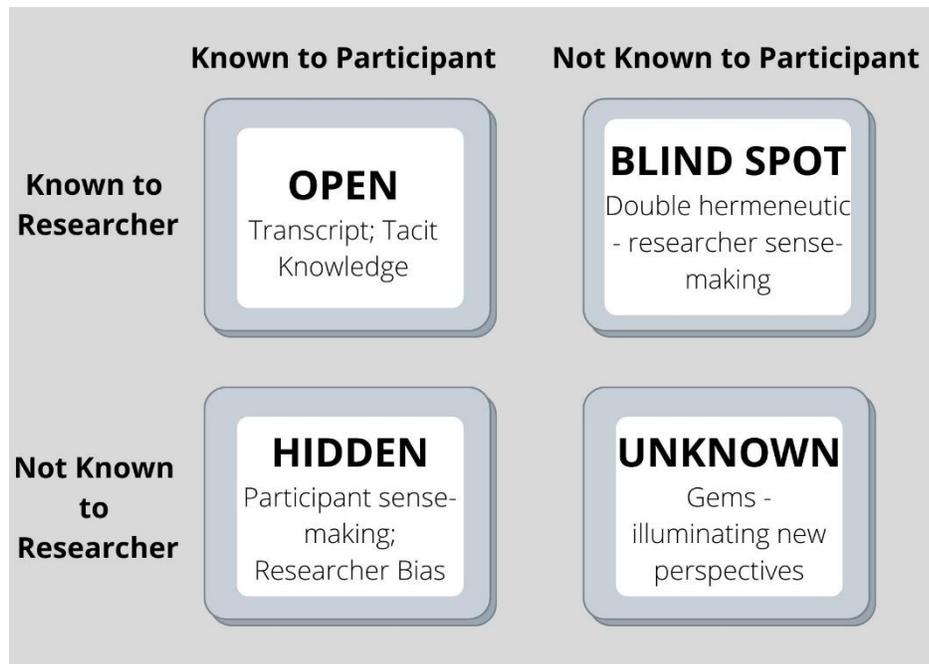


Figure 4. Sources of ‘new’ knowledge

The potential to make visible what is hidden, to highlight blindspots and emerge with such *new* knowledge - a gem, ‘the relatively rare utterance that is especially resonant and offers potent analytic leverage to a study’ (Smith, 2011a:6) - is one gift of IPA which appeals. In addition, acknowledging a tension in distinguishing between differing contributions to knowledge, such as Group Experiential Themes (GETs), biases and tacit knowledge – a discussion for a future paper.

Versatility and Flexibility

Variation in the analytic process, and researcher interpretation, is evident across the range of published IPA studies reinforcing that ‘the analytic process cannot ever achieve a genuinely first-person account – the account is always constructed by participant *and* researcher’ (Larkin *et al.*, 2006:104). IPA offers a ‘flexible and versatile approach to understanding people’s experiences’ (Tuffour, 2017:5), with accessibility, applicability and rigour (Larkin *et al.*, 2006) appealing to these researchers. Living in a messy world, particularly following the unforeseen disruption of the global pandemic, the world of work is reshaping, virtual and hybrid working commonplace, and changes

in how we communicate, connect and lead being demanded. Engaging IPA as an approach to elicit the meaning of leadership mentoring for women mentees is one way of engaging with this messiness.

A particular concern, asserted by Smith, Flowers and Larkin (2022:27), for ordinary everyday experience that 'becomes 'an experience' of importance' for the participant as a result of reflection on its significance and engagement in sense-making, adds to the appeal of this methodology.

In the dearth of studies of women mentees, Gibson's (2004:173) phenomenological study, used conversational interviewing to gather data from nine full-time women faculty members working in US universities, to 'understand and describe the essential nature and meaning of the experience of being mentored' for women mentees. Five themes emerging from Gibson's (2004) study were: 'having someone who truly cares and acts in one's best interest' (p. 179), 'a feeling of connection' (p. 180), 'being affirmed of one's worth' (p. 181), 'not being alone' (p. 181), 'politics are part of one's experience' (p. 182). Focused solely on the mentee perspective, Gibson (2004:186) calls for capturing additional insights into these relationships through undertaking a 'corollary study on the mentoring relationship from the perspective of the mentor'.

Versatility and flexibility become evident when moving beyond capturing a single perspective of the lived experience of leadership mentoring. Deviating from the classic IPA study, the evolution of this study to a multiperspectival study illustrates this versatility offered by IPA. This multiperspectival conceptualisation uses two complementary sub-samples - women mentees and their mentor partners - to view the phenomenon of mentoring from multiple perspectives, although privileging the voice of women mentees.

Co-creation between Researcher and Participant

Applying the IPA perspective, the fulcrum of which is the person of the participant concerned with search for meaning on the part of both participant and researcher, sets out to understand 'what it is like' (Pietkiewicz & Smith, 2014:8) - the bright side and the dark side (Willig, 2012:9) – 'to stand in the shoes of' (Pietkiewicz & Smith, 2014:8) these women mentees who have engaged in a leadership mentoring programme. Bengsten and Barnett (2017:114) assert that 'the darker educational aspects of everyday higher education practice' must be faced in order to 'find renewed hope in the university as an institution for personal as well as professional imagination and growth'. It is the researcher's empathic stance that endeavours to access 'the participant's personal world' (Smith, 1996:218) to capture and meaningfully reveal what it is like for these women.

IPA, also acknowledges that the participant and researcher influence each other throughout the research process and understands the researchers' attitudes, feelings and intentions as part of

this dynamic (Langdridge, 2007; Smith *et al.*, 2012). Search for meaning on the part of both participant and researcher is an inherent concern and responsibility of the researcher (Smith, 2019), recognising that individual experiences engender much cerebral activity – ‘reflecting, thinking and feeling’ (Smith *et al.*, 2022:3), which can be emotionally laden. Getting to each participant’s unique perspective - perspectival knowing – involves separating out the researcher world view from that of participants. As pivotal contributors to an IPA study, an awareness that participants and researcher, in equal measure, hold prejudices, assumptions, expectations and beliefs (Wallace & Wray, 2021) is a critical ingredient to a quality outcome, and attending to such ‘echoes’ (Goldspink & Engward, 2019) is central to the practice of reflexivity by the IPA researcher. Thus, in communicating the ‘varieties and subtleties of primal lived experience’ (Van Manen, 2017:779), a responsibility lies with the researcher, as co-creator, to be cognisant of the ‘complexities’ in making sense of the unique personal accounts of participants. Embracing reflexivity (Goldspink & Engward, 2019) challenges the IPA researcher to reflect on how her or his experiences impact on the interview process and the subsequent analysis and the outcome of the double hermeneutic, demonstrating the researcher’s impact on making sense of participant experiences.

Making sense of the concerns and claims of participants is a key component of the interpretative requirement of IPA, drawing on the ‘phenomenological requirement to understand and ‘give voice’ to the concerns of participants’ (Larkin, Watts, & Clifton, 2006:102). It is incumbent on the researcher to engage in pivotal questioning of self and the interview data, to reveal the essence of what it is like being in a leadership mentoring programme.

Honouring the analytic integrative approach of IPA, applying the double hermeneutic requires the researcher to make sense of each participant’s sense-making of their experience, moving through the hermeneutic circle - oscillating back and forth between text and interpretation, looking to the whole and the parts (Smith *et al.*, 2022).

To deepen insights and amplify the voices of these women mentees, a cross-case analysis of individual cases can be conducted, exploring the convergence and divergence in Personal Experiential Themes (PETs) across cases, and resulting in Group Experiential Themes (GETs) for a homogenous sample of women mentees in a leadership mentoring programme in an Irish higher education context. It is these GETs which are the entrée to the write-up of the results section of an IPA study, where these themes are outlined, illustrating the convergence and divergence across individual cases (p.111), thus bringing the reader into the hermeneutic dialogue (p. 109) - a third hermeneutic, the reader making sense of the researcher making sense of the words of the participants (co-researchers).

The qualitative researcher, as co-creator, is likened to a bricoleur (Denzin & Lincoln, 2018:11), of which there are many kinds. 'The methodological bricoleur is adept at performing a large number of diverse tasks, ranging from interviewing to intensive self-reflection and introspection' (p. 12); 'the interpretative bricoleur produces a bricolage, that is, a pieced together set of representations that are fitted to the specifics of a complex situation' (p. 12), which are the combined commitment of the IPA researcher.

Conclusion

In the chaordic (Hock, 2000) connected world of the twenty-first century, 'work in organizations has become much more relational, interdependent, and collaborative in nature' (Parise, 2007: 360), thus prompting engagement with novel ways to create knowledge. In this study, IPA licenses the researcher to interpret the women mentee's experience, who in turn are trying to make sense of their own mentoring experience - the double hermeneutic or interpretation (Smith *et al.*, 2012) in action. It is incumbent on the researcher, being part of the critical stance in an IPA study, to be cognisant of the tendency to unconsciously reframe evidence that challenges deeply held beliefs rather than reflect on and shift these beliefs (Syed, 2015). Some criticisms of IPA prevail, for example, that findings are reliant on the experience of the researcher to collect and interpret rich and nuanced data (Tuffour, 2017). Thus, it is the ability of the researcher to oscillate between sense-making of cognition, language, culture, narrative, embodiment and emotion that facilitates a 'detailed experiential account of the person's *involvement*' (Smith *et al.*, 2012:196) in the phenomena under study.

As a qualitative research methodology, IPA differs from quantitative approaches seeking reliability, validity and generalisability to illustrate the quality of the research. IPA aims for trustworthiness of findings where it is incumbent on the researcher, representing a dual position (Smith *et al.*, 2022:29), to integrate strategies to enhance credibility (Noble & Smith, 2015). The intent of IPA is exploratory not explanatory. The methodological *fit* between IPA, positioned as 'an integrative approach' (Smith *et al.*, 2022:133), and women's experiences of leadership mentoring is centred, in particular, around the idiographic and hermeneutic theoretical underpinnings. The capacity of IPA for 'context sensitive, within-person idiographic design', Basini, Garavan and Cross (2017) assert, makes IPA 'potentially a significant methodological contributor to knowledge'. Engaging with IPA for the first time can be daunting for the novice researcher with the range of new terminology and theoretical underpinnings. IPA offers a unique way of becoming and being a qualitative IPA researcher which is truly embodied in the *doing* of

IPA aligned with the *being* of reflection and reflexivity, bringing forward new knowledge for researcher, participant and the phenomenon being studied.

In summary, showcasing the distinctiveness of IPA, a qualitative methodology, to illuminate the voices of women mentees, by attending to their experiences, understanding, perceptions and views of leadership mentoring, is the intent of this paper. Engaging IPA as a methodological approach has the potential to give space to the voices of these women mentees, deepening our understanding of their experience and contributing directly to the vision for Ireland to be 'a world leading country for gender equality in higher education' (HEA, 2018:5) by 2026. To address the dearth of studies, this IPA research aims to open the 'black box' of mentoring (Chandler, 2011), to advance knowledge and understanding of the everyday experience of leadership mentoring as perceived by women mentees in an Irish higher education context. In addition, the evolving multiperspectival approach gives voice to more than one perspective, balancing the understanding of the women mentees with that of mentor partners, as advocated by Gibson (2004), offering a range of variation in themes to contribute to the broadening of the discourse. Thus, IPA can make an iridescent contribution to the discourse on educational leadership, gender equality, leadership development, policy, practice, and action, within an Irish higher education context.

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Re-Imagining Andragogy for Innovative and Inclusive Leadership Training for Minority Women in Higher Education

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ABSTRACT

The purpose of this case study undertaken in 2021 was to explore the different ways educators in higher education might implement innovative andragogical practices for inclusive leadership training for minority women. There is need for minority women to develop abilities to make personal adjustments as well as receive support from external structures if they are to benefit from leadership training programs and to be successful leaders (Flower, 2021). The potential for innovation to shift towards a more engaged form of teaching and learning is very important in the 21st Century especially for the inclusion of minority women in leadership in higher education. Trainers of minority women for leadership must reflect on their praxis and learn how to implement innovative and responsive andragogical practices that engage and empower minority women in higher education. This case study attempted to answer a critical question: How might educators in higher education implement innovative andragogical practices for inclusive leadership training for minority women? This study was anchored on transformative leadership theory which aims at building socially just systems in a volatile, uncertain, complex, and ambiguous world (Shields, 2018). Protagonists of transformative leadership theory urge educators to proactively initiate conversations and implement praxis that remove barriers that impede groups of learners, such as minority women, from thriving to their full potential. Researchers conducted online focus group discussions with eight minority women as tools to collect data for this study. More data was collected from participants' personal stories. Focus group conversations and participants' stories were recorded on Zoom. The data collected was analysed through the constant comparison of conversations and stories to distil common themes. Six common themes emerged as perceived

game changers in the implementation of effective andragogical practices for the training of minority women for leadership in higher education. The six themes include (a) positive self-worth, (b) effective mentorship and role modelling, (c) networks of supportive partner allies, (d) female models and styles of leadership, (e) mindset change, and (f) male positive perception of women as leaders.

Keywords: Minority women, inclusive leadership, higher education, innovative andragogical practices.

Re-Imagining Andragogy for Innovative and Inclusive Leadership Training for Minority Women in Higher Education

Introduction

Women who have succeeded in leadership attributed their success to training programs that have helped them to build their confidence as well as availed them opportunities for networking (DeFrank-Cole et al., 2016). However, extant leadership training programs have kept most minority women out of higher positions of leadership casting doubt on the effectiveness of the programs and questioning the responsiveness of the andragogical practices implemented to the needs of minority women. Alexander Kapp, a German high school teacher, authored the term “andragogy” in 1833. Andragogy is the development of human potential through deliberate interdisciplinary interaction between adults who are at various stages in their learning process. Andragogy is anchored on seven principles of adult learning including self-direction, transformation, experience, mentorship, mental orientation, motivation, and readiness to learn. Hence, the establishment of strong supportive networks of friends, families, and colleagues contributes to the success of minority leaders in higher positions of leadership. The COVID 19 pandemic opened more opportunities to develop what Bell Hooks calls the engaged pedagogy and made urgent the call to reimagine the possibilities for teaching and learning in higher education (Baker et al., 2022). This innovative form of teaching is more inclusive than the traditional approaches. For this study, researchers carried out online leadership training to explore the lived experiences of a particular disadvantaged cohort such as minority women leaders in Ireland and in the USA.

Literature Review

Minority Women Leaders in Higher Education

As minority women continue to rise to leadership roles, research on women leaders calls for more egalitarian leadership perspectives. The experience of minority women leaders remains subsumed within the larger traditional feminist discourse (Rosser-Mims, 2010). Research has shown that the leadership experience of minority women has not been strongly advocated within the broader discussion of leadership in higher education (Sims, 2018). This therefore creates the

dilemma for minority women leaders to either accept the assumptions of mainstream culture or operate in ways that conceal their distinctiveness or reject these assumptions as failing to represent their lived experiences and social identity (Dickens et al., 2019).

A leader is an individual within a group or organisation who has the most authority and influence over other members through status, power, or expertise (Summerfield, 2014). Although this conceptualisation is gender and race neutral, there is a chronic underrepresentation of minority women in leadership positions across all industries, (Velarde, 2020). For example, this disparity is especially salient within higher education for minority women as they hold approximately five percent of presidencies within the US (Johnson, 2017). There are recent trends in examining leadership research to help leaders in higher education and those striving for leadership to thrive in the multifaceted global environment and effectively prepare for the challenge of leading complex institutions (Chance, 2022). Thus, focusing on minority women who serve in leadership roles at colleges and universities helps to expand the knowledge base on higher education leadership, resilience, and overcoming adversity, thus opening the door for more access for women in leadership. Hence, understanding the processes and strategies these women have implemented will help develop and provide training and mentoring programs for minority women seeking leadership and advancement in higher education.

Minority women leaders work towards inspiring change while simultaneously working to overcome stereotypes within the workplace (Dickens et al., 2019; Sims and Carter, 2019). However, minority women leaders experience dilemmas emerging from their social identity not experienced by white counterparts (Lanier et al., 2022). Studies suggest that minority women leaders are often tasked with addressing diversity issues, advocating for marginalised workgroups (Chance et al., 2017), or being selected as the token minority person in the room (Ruby, 2020). In some instances, they are selected after their roles due to the assumed positive impact created from their experiences living as marginalised individuals (Davis and Brown, 2017). Further studies show that minority women's lived experiences equip them to lead diverse groups from a survival instinct (Dickens et al., 2019) rather than from mainstream cultures and organisational support.

However, identity shifting, and avoidance behaviours practised by minority women leaders are relevant. Sometimes, these tactics can cause them to exhaust the energy to focus on fitting into the mainstream culture as an effort to overcome racial and gender injustices (Bell, 1990). Research has suggested that this can impede the progress minority women achieve for the organisations (Patton and Haynes, 2018). Identity informs leadership practice; thus, the cultural perspective should be considered for leadership strategy advancement (Santamar and Jean-Marie, 2014). Other challenges such as microaggression, fatigue and taking on a higher workload

to prove that minority women are capable of leadership are often referred to as working twice as hard to achieve the strategy than their counterparts (Generett and Welch, 2018). This does not guarantee the minority women leaders to get noticed or appreciated for their hard work. Unfortunately, this can be perceived that minority women who take on more workloads are happy to do so and that their well-being is not being compromised (Patton and Haynes, 2018). As this is discussed, there is need to explore new theoretical frameworks that represent the leaders' marginalised social identity and that support them in the navigation of mainstream cultures.

Furthermore, the levels of mental and emotional labor that is required for minority women in positions of leadership while maintaining their authentic racial and sexual identity have been identified as exhausting (Erskine et al., 2020). In some instances, once the hurdle of the concrete ceiling has been overcome for these female leaders, a new series of challenges present. Higher education's power structure, gender-pay gap, and the limited access to power and privilege can result in feelings of tokenism and isolation, leading to diminished resilience thus presenting unique challenges for minority women in senior higher education leadership (Becks-Moody 2004). Another area to be aware of is the discrimination that minority women face in higher education. This discrimination is referred to as the harmful and sometimes dangerous action of some based on negative prejudice that is expressed in escalating levels of violence to others, ranging from verbal abuse, according to the seminal research of Allport (1954). The discrimination that is discussed is fuelled by stereotype threats and fear as expressed through racism, sexism, ageism, classism, and unethical treatment based on race, age, religion, health, socioeconomic status, and class. Experiences of discrimination compounded with fear of real or perceived threat can lead to symptoms that mirror those posttraumatic stress disorder as suggested by Comas-Diaz et al. (2019).

The overlap or interaction of these categories of identity discrimination as discussed earlier is referred to as intersectionality (Crenshaw, 2018). Researchers have found that the intersection of racism and sexism in higher education can result in biases that alter the perceptions of minority women's competencies thus limiting their ascension into leadership (Moorosi et al., 2018). This intersectionality has led to more examination and critique for minority women in administrative and education leadership, making it more difficult for them to succeed (Hughes and Dodge, 1997). This paper discusses transformational leadership theory to situate the dynamics of minority women's interaction with racism, sexism, and discrimination in their efforts to ascend the leadership ladder in higher education.

Transformative Leadership Approach as a Pathway for Minority Women Leaders

Transformational leadership and servant leadership are traditional leadership approaches that consider the needs of the individual. The transformational leader is driven by an urgency to arouse, stimulate, and redirect the needs of the follower (Bass and Avolio, 1994). The servant leader has the instinct to serve and to prioritise others' needs as the ultimate concern (Greenleaf, 1998). Both approaches can serve as a guide for minority women whose leadership is defined by their social identity and a legacy of survival. Scholars claim that traditional leadership theories seem to be lacking in addressing the challenges of minority groups in a chaotically volatile, uncertain, complex, and ambiguous world (Shields, 2018; Wheatley, 2006). Wheatley (2006) draws our attention to a new consciousness that we need in our times - a consciousness that believes in the fact that organisations are capable of self-renewal even in a world of constant change and unpredictability. Wheatley (2006) argues that "the layers of complexity, the sense of things being beyond our control and out of control, are but signals of our failure to understand a deeper reality of organisational life" (p. 5). Leaders need to refocus their energy on renewing organisations to address the deep human longings of community, dignity, love, meaning, and purpose. (Wheatley, 2006).

Transformative leadership is a more recent approach to leadership that promises effective organisational change especially in educational environments. Shields (2018) describes transformative leadership as the kind of leadership that addresses the inequitable distribution of power in organisations. Transformative leaders pay attention to questions like; Who makes the decisions? Who is represented at the decision table and who is not? Whose voices are heard and who are not? Transformative leaders take the risks and embrace uncertainties and uncharted spaces to advance meaningful changes in the organisational status quo (Generett & Welch, 2018; Shields, 2018). However, there is no standardised formula or approach for the achievement of the desired organisational change, as Generett and Welch point out. The same scholars note that change in favour of underrepresented groups is even harder to achieve when it comes to higher education environments because of their notoriety for resisting change (Generett & Welch, 2018). For minority women in higher education the journey to removing barriers out of the way to getting seats at the tables where decisions are made is winding and daunting. Scholars underscore the need for prospective women leaders to participate in networks that are informal and formal, social, and professional, for mutual support and relationship building if more women are to get more places at tables where decisions are made (Generett & Welch, 2018; Goleman & Boyatzis, 2008). The question on how successful minority women leaders might have differed from successful male leaders has attracted the attention of renowned academic writers. This is evident in the work of Powell (1990), where the author investigated how gender differences amongst male and female

leaders might have influenced their abilities to governance and managerial responsibilities (Powell, 1990). Powell's work opened the floodgate that supported subsequent developments designed to challenge the status quo in the order of leadership, which had been prevalently of male dominance (Stelter, 2002). Consequently, the past two decades have taken a dramatic turn, thus showing prospective future female leaders contesting elections and becoming good leaders alongside male leaders in the contemporary world's government. Furthermore, extant literature shows that the assumed differences in leadership behaviour(s) and effectiveness is subject to individual perception and thus a question of stereotype, organizational culture, perception of subordinates, and inferiority complex (Merchant, 2012; Stelter, 2002). In comparison, leadership amongst female minorities has proven just as good and even better than some past previous male administrations. For instance, one of the areas where men and women differ in their approaches to leadership is found in how they relate with their followers and interact with them (Merchant, 2012). Although men's status and communication style suggest they are controlling and authoritative in their leadership approach, this is because men are naturally power-oriented (Merchant, 2012). While it has been argued that there are no gender differences in leadership abilities between male and female minority leaders, Foels et al., 2000 show that leadership is contingent on situational factors. Hence, to further the agenda of removing the extant barriers for more minority women to access leadership in higher educators and leaders must initiate conversations that are anchored on tenets of transformative leadership.

Description of Leadership Training Module

Eight minority women from different cultural backgrounds including Irish/African, Asian, Indian, African/American, Mid-Eastern, and Irish took part in this study. Participant women included graduates and postgraduates. Participants brought to the group rich experiences not only from their cultures but also from their different areas of expertise including business, engineering, entrepreneurship, education, psychology, and tourism. Using personal experiences in a feminist reflective way, the study focused on the development of minority women's leadership roles, gender, inclusive values, mindset change, and transformative andragogy. Facilitators implemented the module through a combination of presentations and focus group discussions on a weekly basis. Each participant chose a topic related to minority women's issues on leadership in higher education and wrote a ten-page paper which they presented to the group. Facilitators and participants had focus group discussions of each paper presented while offering feedback and reflections.

Participants and facilitators also focused on developing critical research skills, creative writing skills, presentation skills, and offering feedback through dialogic conversations. At the end of the module, each participant had gained considerable knowledge on several important topics that were relevant to their academic and professional concerns. Participants also gained insights in the changes that needed to happen at the personal and systemic levels for inclusion of minority women for leadership in higher education to happen.

Methodology

Researchers undertook the study online via [Zoom.com](https://zoom.us). The study took eight weeks, from the beginning of March 2021 to the end of April 2021, during the COVID19 pandemic lockdown. One of the researchers was based in Ireland and the other in the United States. Majority of the participants (seven) lived in Ireland while one lived in the United States. The study employed the case study design described as self-ethnography of lived experiences (Yin, 2009). Facilitators of the training used participatory andragogical practices that included sharing of individual stories and experiences and a focus group discussion on each participant's story and experience. Each participant shared her story and experience on (a) how they perceived themselves as leaders (identity), (b) how they navigated the challenges of their leadership roles as caregivers and professionals (social identity), and (c) how the kinds of challenges they encountered impacted their journey of becoming leaders in their areas of expertise.

Participants selected their topic for presentation in consultation with the module facilitators and developed their papers over the course of eight learning sessions. After each presentation at a learning session, participants engaged in open whole group discussion and received feedback from other participants. All presentations and focus group discussions were audio recorded via Zoom. Participants also offered feedback during formative review sessions. With the support of facilitators, each participant wrote a paper anchored on a) the topic of their choice related to leadership, b) their area of expertise c) insights from their respective presentation, and d) feedback from the group. This dynamic gave participants the opportunity to explore a particular area of concern in greater depth. Presentations and focus group discussions generated data that informed the insights that we share in the findings of this study. The analysis of data resulted in common questions and themes that highlighted concerns for minority women's perception of themselves

as leaders and what they needed to change and to do to become successful leaders in all spheres of their lives.

Target Group

The target group are individuals directly affected by the impact of a project (Forster & Osterhaus, 1996). This case study targeted graduate and post-graduate minority women from diverse cultural and educational backgrounds. Participants' responses helped with understanding how they perceived their problems and the changes they desire and the necessary action to be taken (Forster & Osterhaus, 1996).

Sampling

Although many sampling strategies exist in qualitative research approach sampling can change during a study (Creswell and Poth, 2016). The process of selecting a small number from a bigger group that represents the research population with the idea of estimating or predicting the prevalence of an unknown piece of information, outcome, or situation regarding the bigger group of individuals is known as 'research sampling' (Kumar & Singh, 2005). Researchers employed snowball sampling through women's social networks to recruit participants. Similarly, snowball sampling is mostly used in research topics considered sensitive or because the population under investigation is hidden due to low number of participants (Browne, 2005). The review of the literature shows that the term 'snowball sampling' appears informal, which predates Coleman (1999) and Trow (1957), Handcock and Gile (2011). Furthermore, the adopted snowball sampling was useful because various aspects of the relationships present in the research population were identified through statistical inferences (Goodman, 1961). Also known as a chain-referral sampling, snowball sampling is defined as a non-probability sampling technique in which existing subjects provide referrals that facilitate recruiting the required sample for the study (Bhat, 2018).

Sample

In determining sample size, studies show that broader research questions take longer before saturation can be reached (Morse, 2000). In the work of Israel, determining research the sample size requires three criteria: (a) the level of precision; (b) the level of confidence or risk and (c) degree of variability (Israel, 1992). The study further shows that it is fundamental to identify the

appropriate individuals who are taking part in every empirical research. This is further known as the operational definition of the research population. As an important step in every research, there is a need for adopting an efficient method when determining the sample size needed to represent the research population (Krejcie, & Morgan, 1970). Applying the formula for determining a research sample size, eight minority women participated in the study and in the leadership training module. Although qualitative research has been criticised for not justifying sample size (Boddy, 2016), the adopted method took adequate measure to enhance quality outcome. For instance, the decision on sample size was informed by personal experiences of the authors of undertaking academic qualitative research over the last seven years. In this regard, determination of sample size is arguably contextual because it is partially dependent upon the scientific paradigm underpinning the research investigation (Boddy, 2016). The sample for this study consisted of eight women from diverse minority backgrounds as shown in Table 1. The names of participants in Table 1 are pseudonyms for privacy protection.

Table 1. Profiles of Focus Group Participants

No.	Pseudonym	Age	Country of Origin	Education	Career
1	Aisha	32	Mid-East	PhD	Engineering
2	Betty	28	Irish	PhD	Anthropology
3	Julie	50	Irish/African	PhD	Education
4	Kate	34	African/American	Bachelor	Entrepreneur
5	Kendra	40	Asian/Indonesia	PhD	Psychology
6	Kim	31	Asian	Masters	Business
7	Rebecca	35	Mid-East	PhD	Marketing
8	Sandra	30	Irish/African	Bachelor	Business

Source: Current Study.

The total duration was 1 hour and 40 minutes. All the participants had certain characteristics in common that related to the leadership program, such as the following: They were all minority women with different cultural background; all participants had experience in higher education, they were all interested in building their competences, attitudes, and skills in organizational leadership. Although there were differences in the sense that some of the participants had left the higher education and started their own business, they were leaders of their businesses. The focus group questions were designed based on the gaps in information in leadership and to gather more detailed information regarding the respondents' lived experiences and the reasons for joining the leadership training program. The questions asked during the focus group discussions were as follows:

- (a) How did you get to where you are? What is your personal story?
- (b) Why did you want to be trained in a leadership program?
- (c) Are you happy with your leadership position: if yes, why? If no discuss.
- (d) Why do you think there are few minority women in higher positions of leadership?
- (e) What are the barriers that prevent minority women in taking up leadership in higher education positions?
- (f) Do you feel that you have adequate opportunity and support to progress in your career as a minority woman leader at your university/business?
- (g) Do men and women have a different experience in terms of career progression?
- (h) What could be done better to encourage minority women leaders in Higher education?

All questions listed above were answered by the participants during focus group discussions. During the discussion, contributors shared their lived experiences, and they were very open and honest on how they struggled to access jobs in higher education institutions.

Findings

The analysis of data from participants' personal narratives and from focus group discussions generated six key themes that minority women perceived as game changers on their journey of becoming leaders in higher education. The themes are a) self-worth, b) mentorship and role modelling, c) partner allies, d) female style of leadership, e) mindset change, and f) male negative perception. In presenting the findings we have used pseudonyms to protect the privacy of participants and to ensure confidentiality.

Self-worth

The notion that most women are socialised in various cultures as people who need to be better than others to attain the good things in life featured a great deal. In theory, the concept of 'self-worth' claims that achievement is subject to a person's ability to protect personal value or sense of worth (Covington, 1984; Covington, 2009). This is important following participants' observation that this dynamic denies women the opportunities to appreciate their self-worth and to identify and use their gifts and talents to develop themselves. In one of the focus group discussions, Julie said, "Comparing oneself to others is a socialisation. We were all taught that you got to look better to

get a man, to be married.” Hoobler et al. (2014) highlighted the impact of gender socialisation as a key inhibitor of women’s aspirations for powerful jobs in general.

For minority women, feelings of low self-worth for leadership in higher education are exacerbated by significant people around them such as their bosses who perceive them as individuals that cannot be trusted with higher positions of leadership. Personal feelings of low self-worth amplified by subcultures of mistrust and low expectations for leadership within work environments disable minority women’s efforts to ascend the leadership ladder (Hoobler et al., 2014). Participants underscored the need for instruments that can measure women’s self-worth to support them in gaining insights into their capabilities as prospective leaders. On this issue, Kate asserted “*We need to design instruments that measure women's self-worth to support our journey into self-discovery.*”

Mentorship and role modelling

Participants in the study acknowledged the power of mentorship in supporting women to become leaders and to develop as leaders. According to Mullen (2005), the concept of mentorship has two types (a) technical mentoring (i.e., managerial efficiency, hierarchical authority relations and structure) and (b) alternative mentoring (i.e., critical democratic orientation, power-sharing professional relations and structure). As such mentoring has mythological, metaphorical, historical, cultural, corporate, and philosophical influences on human subjects. This is evident in the real-world application where those who availed themselves of such opportunity hold their self-worth higher compared to those who did not.

Women grow more within groups and within networks of support. Minority women who have succeeded in becoming leaders highlight the importance of support from significantly supportive people in their lives. The lack of mentorship groups that are geared toward developing women as leaders is a disservice to society in the sense that women do not develop to their full potential for leadership. Similarly, it has been argued that mentorship into education has perpetuated significant barriers against women using limiting structured hierarchical dyad (Mullen, 2005). In a focus group discussion, Kendra also observed that “*women are not necessarily known to be mentors of other women.*” Participants in the study underscored the need to intentionally form informal mentorship networks that empower minority women with knowledge, skills, and attitudes that provide strong foundations for successful assumption of higher positions of leadership in higher education learning environments. Hoobler et al. (2014) found that extant mentorship programmes employed male-oriented principles that some women perceived as repugnant. This

could partly explain the persistent failure for some women mentors to break the leadership ceiling for minority women.

On the issue of role modelling, this study shows that role modelling plays important roles to both individual career development and success (Gibson, 2004). Participants acknowledged the contribution of famous minority women to the cause of inclusion of women in higher positions of leadership by sharing their stories and encouraging other women. This was confirmed that role modelling is a cognitive construction based on an individual's needs, wants and ambitions Gibson, (2004). However, most minority women do not have access to role models from whom to learn what it takes to shape a leader.

Supportive partner allies

The issue of partner allies arose from the dynamic of support that women need to accompany them on the journey to becoming and developing as leaders. Women need to develop the ability to identify and seek out supportive allies that help them navigate the currently predominantly male-dominated area of leadership. In this regard, Sandra wondered, "I need allies to support me on this journey. Who are they? How do I know them? Hoobler (2014) and colleagues found that the exclusion of women from informal networks helped men to access promotions to higher managerial positions. In the absence of informal networks that prepare women for leadership in higher education learning environments, women tend to rely on formal processes of accessing higher managerial positions such as attaining higher degrees. However, the attainment of advanced degrees does not necessarily guarantee requisite preparation and networking for successful positioning for leadership in higher education. In a focus group discussion, Kim observed that "working around a solution through organic networking rather than complaining about our problems is the way forward. We are stronger together."

Female models and styles of leadership

The critique and analysis of extant models of leadership indicated that what is considered as leadership is geared toward masculine ways of appropriating leadership. To fit into leadership positions some women have tried to mirror masculine behaviour to pass for effective and serious leaders. This dynamic denied women to use their feminine capabilities and styles as leaders. Participants observed that women do not have to behave like men to be successful as leaders. On this dynamic Kim said: "Accepting oneself is the beginning of the freedom to be who I am. Use your style, use your womanhood to be a leader. You do not have to behave in a certain way (like a man) to be a leader. You do not need to be anything but who you are." Kendra also commented

thus, “No matter how you show appreciation, how you show the human face men look at you as less able.” Betty added: “We want women not to fit in male models of leadership but to bring forth the female models.” However, Griffin (2010) and colleagues found that the most successful women leaders in organisations combined transactional behaviours associated with male leadership with transformational ones associated with female leadership.

Mindset change

One of the participants presented a paper about mindset change. The conversation on the subject highlighted the great need for women to change their mindset from a socialised one to a free one. Mindset change in the way minority women perceive leadership and themselves as leaders would help them leverage their lived experiences for their good. One of the changes that needed to happen was for women to know they have acquired some leadership skills through their lived experiences. To underscore this notion, Mariam opined, “*We (mothers) are beasts of time management. We are highly trained domestic engineers. We need to transfer those skills into our professional lives.*” At the micro level, minority women needed support to acknowledge the issues, ideas, and feelings that impeded their journey to mindset change. Participants highlighted the need for mutual support rather than struggling on one’s own to overcome the seemingly insurmountable process of changing mindsets of leaders in higher education environments. Some of the ways of addressing the challenge of mindset change among leaders are (a) building support networks geared toward learning from each other and (b) developing intentional mitigation approaches that acknowledge and challenge institutional systems that dismiss minority women as incapable for leadership in higher education (Generett & Welch, 2018; Shields, 2018). Participants observed that women do not have to mimic agentic or stoic male leadership styles to be effective. Women need to be comfortable with their leadership styles. Sandra opined “Your leadership style is different because you are female.”

Male negative perception of women as leaders

Participants highlighted the negative effects of yet another barrier on women’s path to positions of leadership in higher education - male negative perception of women as leaders. Studies have shown that men, more than women, believe that to be an effective leader one must have masculine qualities (Atwater et al., 2004; Shein, 2001). There is also evidence of men’s prejudicial perception of women leaders (Eagly et al., 1992; Koenig et al., 2011). In narrating her experience as a female engineer among male colleagues during a focus group discussion, Aisha reported, “Men see women engineers as a threat. They do not take me seriously. They think I am too

emotional, too sensitive to be a leader.” Leadership, in the women’s view, should be open to care, warmth, and sensitivity for people’s growth and development to their potential. Studies have shown how male negative perception of women as leaders affect their decisions to exclude women in their networks and in leadership mentorship programs in various industries (Ballaro and O’Neil, 2013; Generett & Welch, 2018; Silva and Mendis, 2017). Using the transactional lens of agentic leadership in managerial spaces that are competitive, men regard women’s sensitivity to the human needs for communion and collaboration as weakness or softness. Women that are regarded as effective executive leaders have tended to develop the male transactional outlook to leadership to fit in the male-dominated managerial spaces. This dynamic among women leaders denies organisations the use of the transformative lens that critiques the status quo and initiates meaningful organisational change especially for minority women. Participants underscored the need to mitigate male negative perception of women as leaders through networks of knowledge, dialogue, and collaboration. There is more evidence that as more women take up top leadership positions in various organisations a more androgynous perception of leadership is emerging thereby reducing prejudice toward current and future women leaders (Koenig et al., 2011).

Discussion of Results

For decades, men have generally been perceived as more agentic than women when it comes to leadership. Leaders are considered agentic if they are authoritative, dominant, and assertive. Women have been perceived as communal, that is, warm, supportive, and kind (Koenig et al., 2011). The notion of leadership as agency, as some participants in this study observed, is based on the extant male-oriented models of leadership that are prejudiced against women as leaders. Minority women who took up leadership positions in predominantly male organisations mirrored the agentic behaviours (dominance and authoritarian) as observed among men. The tendency to mirror male leadership behaviour took away the caring aspect of leadership that women would bring to the leadership arena. Organisational scholars underscore the impact of several barriers on women’s ascendance to top leadership in different contexts.

In professional contexts where women are the majority such as nursing and elementary education, female leadership styles are effective. In environments where men are still a greater majority, women leaders struggle against many odds to ascend to top leadership. This is mainly because masculine criteria are used to measure the performance of successful and effective leaders. As evidence from this study shows, prospective women leaders do not have to rely solely on formal

networks and mentorship programs to prepare them for leadership. New approaches and informal networks must be explored and navigated to support especially minority women in higher education in their efforts to ascend the ladder of leadership in their various areas of expertise. As noted earlier, higher education environments are notoriously rigid to mindset change and andragogical praxis (Generett and Welch, 2018). In this paper, we argue that educators and managers in higher education environments must explore and implement innovative and inclusive andragogical practices to mitigate the status quo for minority women.

Creating platforms and forums where men and women share knowledge, attitudes, and skills that listen to minority women's voices and concerns is critical on this journey. Establishing formal and informal mentorship networks for minority women will go a long way in addressing the gaps in extant leadership training programs for more innovative and inclusive ways. Participants in this study listened to each other's stories as well as offered feedback and mutual support. The Zoom online platform offered minority women a safe space to navigate issues that they had not shared in real life given their busy lives as professionals and caregivers. Organising learning experiences around work schedules accorded women flexibility to manage their learning with minimum stress. Presentations and conversations in our leadership training module were enriched by the fact that participants came from different cultural and professional backgrounds. This dynamic added value to the women's knowledge of the impact cultural biases and prejudices had on their development of self-worth and of their attitudes and skills for leadership.

Research Limitations and Implications

Studies have shown that limitations in research are matters and occurrences that are beyond the control of the principal investigator (Simon and Goes, 2013). Similarly, study limitations consider the scope of the study under which the study will be operating. Consequently, every study has its limitations and shortcomings. In some cases, research limitations may be too remote to identify because they take various forms. In the current research the outbreak of COVID-19 pandemic influenced the data collection approach. This is evident given that data was collected using online means due to COVID-19 restrictions. Arguably, this could have affected the quality of the data collected because the principal investigator could not conduct a face-to-face interview with participants. Hence, participants could not avail themselves of the advantages of focus groups interviews. A good example would be where participants were unable to participate in the research in person but through virtual means, the principal investigator will not be able to read participants'

body movement and gestures. As a result, the quality of the data can be compromised subject to the means used in gathering data. The locations of the research participants can affect data quality to some degree (for instance, the data was collected between March and April 2021 through (www.zoom.com)). Studies show that the quality of data collected from participants during focus group or one-on-one interviews are more reliable than data collected through online platforms. This is evident given that during one-on-one interviews with participants, the principal investigator can interpret meanings following follow-up questions. Also, participants' behaviours and body language during interviews can help the researcher to arrive at a different conclusion(s) during data cleaning and analysis. Undoubtedly, this can further influence data interpretations and results. Although research limitations are unavoidable, these are some of the shortcomings that can be identified with the current study. However, the principal investigator took all these into account when interpreting data to ensure that data quality was not compromised.

Further Research

Studies on minority women leaders in higher education are still scarce. Scholars need to further explore this population in contexts of higher education to inform policy, andragogy, and leadership praxis. In addition, further research needs to examine the tenets of transformative leadership to determine their impact on the process of deconstructing and reconstructing knowledge frameworks and andragogical praxis for deep and equitable change to happen. Scholars need to do further research on extant leadership training programs and mentorship programs for minority women in higher education to examine their impact and effects.

Conclusion

The search for innovative and inclusive approaches to preparing minority women for leadership in higher education continues. Scholars and managers at higher institutions of learning have the onus to innovate through research and conversations that inform the creation of environments for the advancement of minority women as leaders. This study has added to the lean body of knowledge and literature there is on minority women leaders in higher education spaces. This case study has shown that intentionally creating safe, respectful, caring, supportive, and dialogical spaces where minority women can share their lived experiences and stories might be helpful in the design of new andragogical practices for leadership training for minority women in higher education. We hope insights from this study will trigger further thought, conversation, and research in this area.

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Education to Enable Sustainable Economic Development

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ABSTRACT

Sustainable development has been widely discussed in the economic and political debate for the past 20 years, but practical, sustainable measures are still lacking. This fact poses a serious challenge to governments as they strive to balance the demand for natural and social resources while ensuring economic progress and risking severe environmental degradation. The urgent need for an economically sustainable development model raises essential questions, such as integrating education into business models and government policies. Education plays a vital role in sustainable development, as recognised by the United Nations. Technological solutions alone are insufficient; our society requires a shift in thinking and behaviour towards sustainable lifestyles and consumption patterns, which can only be achieved through education. However, we face a significant dilemma as current educational models seem to prioritise the interests of the political and business elite over socio-economic and environmental needs. In this paper, we critically assess the role of education in fostering economic sustainability and inclusive development. We conclude that education can play a critical role in achieving the United Nations 2030 Agenda and the Sustainable Development Goals. We argue that our education system should prioritise the well-being of humanity, challenging the prevailing focus on profit maximisation and economic growth as currently understood. Therefore, we need to reevaluate the meaning of growth and reconsider how economic elements should be approached.

Keywords: Education, Inequality, Sustainability, Poverty, Inclusion, Development

Education to Enable Sustainable Economic Development

Introduction

The world economies face significant challenges as they seek to comply and align their policies with the ambitious UN SDGs (United Nations, 2015). Specifically, developing economies worldwide must reassess their economic models, capabilities, and available resources to effectively promote and implement sustainable strategies for economic growth and development (Sachs et al., 2016; Spaiser et al., 2017 and Bali Swain & Yang-Wallentin, 2020). The introduction of Sustainable Development Goals (SDGs) has sparked discussions on the sustainability of current economic models. Developing countries, in particular, demand special consideration as they heavily rely on securing adequate financial support to bridge the resource gap and effectively meet the requirements of the UN 2030 Agenda (UN, 2015). Inadequate infrastructure, investment, skilled workforce, weak institutions, and conflicts are crucial challenges that economies must tackle. The UN 2030 Agenda has heightened the importance of comprehending development effectiveness more deeply. According to recent research studies, the ideal economic models should now encompass economic growth, social inclusion, and environmental sustainability, which is quite a difficult task as the cost associated with the transition need to be considered, as also the social and political will to engage on required changes and transformation process (Rahman & Farin, 2019; Smith & Archer, 2020; Lincoln Lenderking et al., 2021).

Education has become a vital component of business models and a commodity primarily accessible to those with financial means, creating a dual impact. On the one hand, education can serve as a pathway to employment opportunities and economic advancement. Conversely, the absence of education can perpetuate poverty and inequality (Nash, 1990). However, in general terms, education holds significant importance in fostering inclusivity and enhancing social cohesion. Conversely, individuals with limited educational attainment are likely to experience adverse effects on their socio-economic standing, as analysed by de Paula Arruda Filho (2017), Kraus et al. (2019), and Vaio et al. (2020). Access to higher education can lead to better job prospects, but it also has a broader social impact. Education can improve economic activity, health, and the environment. It can also shape the future of generations and their way of thinking. However, existing educational models can also exacerbate inequality and exclusion. They can lead to elitism, exclusion, and discrimination (Watermeyer & Olssen, 2016; Carrington, 2017;

Preece, 2018; Hansen et al., 2020). Therefore, it is important to critically assess the role of education as a tool for economic sustainability and development. Education can be a liberating mechanism for individuals as it can help to reduce inequality. However, there is a paradox associated with economic and political interests, which can undermine the potential of education to achieve these goals, as Nelson Mandela highlighted in his speech at the launch of the Nelson Mandela Institute for Education and Rural Development in 2007:

"There can be no contentment for any of us when there are children, millions of children, who do not receive an education that gives them dignity and honor and allows them to live their lives to the full." (Mandela Institute, 2022)

This research paper delves into the complexities of sustainable economic development. It examines how the educational system can contribute to formulating strategies that address economic and social inequalities while staying within the limits of our planet. The remainder of the paper is structured as follows: Section 2 addresses education and inequality. Section 3 explores education for sustainability, with section 4 examining energy models and business activity. Section 5 discusses the need to educate governments, businesses, and the population for economic sustainability. Finally, section 6 concludes the paper.

Education and Inequality

Despite a series of goals identified by the international community to assess the sustainability of the development process, countries differ in their priorities for economic and human development. The United Nations' Sustainable Development Goals (SDGs) were inspired by the Millennium Development Goals (MDGs) launched in 2001. The MDGs were an attempt to reduce inequalities and mitigate the adverse effects of globalisation. However, the benefits of globalisation have been distributed in an unfair way, and the most vulnerable societies had to bear most of the costs (Doyle & Stiglitz, 2014; Kelegama, 2014; Carant, 2017). Moreover, the latest research suggests that eliminating this great inequality, *ceteris paribus* would double GHG emissions, propelling the Earth system beyond dangerous tipping points (Rammelt et al., 2022). The Millennium Development Goals (MDGs) were initially met with great optimism, but this soon gave way to criticism that the goals were not ambitious enough and did not adequately address inequality. In response, the United Nations issued its proposal for the Sustainable Development Goals (SDGs) in June 2014. The SDGs build on the MDGs but are more ambitious and focus more on sustainability (Saiz & Donald, 2017; Winkler & Williams, 2018; Kaltenborn et al., 2020). According to their particularities

and different realities, the implementation of adequate responses to environmental pressures is hampered and marked by political priorities and critical unmet social needs in many parts of the world (United Nations, 2021). This reality can be seen by observing and examining data on economic growth and social well-being. The data shows that income disparities and economic differentiation between developed and less developed economies are much more significant today than they were a century ago (UNRISD, 2017; Alvaredo et al., 2018; Piketty et al., 2019; OECD, 2021b). The World Inequality Report (2022) provides global indicators of inequality, revealing a growing trend since 1820¹, reaching an all-time high in the early 2000s before dropping to 38 in 2020. Especially after the 2008 Global Economic and Financial Crisis (GEFC), inequality between countries declined and remained stable, due to the poor post-2008 growth performance of rich countries, especially in Europe, compared to developing and emerging countries (Boyce, 2019; Chancel, 2020; Chancel & Piketty, 2021).

Despite the decline in inequality between countries, in 1980, the average income of the top 10% of the world's major economies was 53 times greater than the average income of the bottom 50%. On the other hand, in 2020, the average income of the top 10% globally was 38 times higher than the average income of the bottom 50%, revealing the significant gap between the rich and the poorest countries (Chancel & Piketty, 2021). The data suggests a potential correlation between the impact of income inequality and economic growth. Furthermore, considering that environmental pollution can reinforce the level of global inequality between countries, the effects of climate change seem to be associated with more pronounced effects in low-income countries (Pata & Caglar, 2021; Kang, 2022; Wan et al., 2022). In 2012, the role of education in supporting sustainable development was finally recognised. This was after several global consultations organised by the United Nations, which addressed specific topics related to the implementation of the Millennium Development Goals. These consultations laid the foundation for what would become the heart of the SDGs (Leicht et al., 2018; Rieckmann, 2018; Glavič, 2020). In its couplet, education was identified as SDG 4: "*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*" (United Nations, 2015, p.14). According to the conclusion reached by the 2012 United Nations Conference on Sustainable Development (United Nations, 2012), sustainable development cannot be achieved solely through technological solutions, political regulation, or financial instruments. The progress of the discussion on the role of education in sustainable economic growth since 2012 is evident in the development of national and international education policy initiatives and activities in subsequent years. These reaffirm the influential role of education in national education systems. The importance of investing in

¹ Time when the series began to be reported.

education in the global context and the need to enable its critical role as a catalyst for change towards sustainable development is unquestionable (UNESCO, 2017; Cebrián et al., 2020; Marouli, 2021). Sustainable development requires changing how we think and act and transitioning to sustainable lifestyles, consumption, and production patterns. This change can only be achieved through learning across all levels and social contexts.

Education is essential for sustainable development because it can help people understand sustainability challenges and develop the values and attitudes they need to live sustainably (UNESCO, 2018). The transition of our economies and societies from an industrial to a knowledge-based model has made education a fundamental element for individual and social progress. Today's education systems must provide high-quality education and skills to meet the demands of increasingly specialised jobs (OECD, 2017; Boston Consulting Group, 2021; McKinsey & Company, 2021). In addition, education emerges as a key player in enabling change and ensuring that economic and business practices are reviewed and reconsidered in the context of the UN SDGs (Shulla et al., 2020; UN Global Compact, 2022). The general notion, given theoretically and empirically by recent studies, is that the development of human capital leads to an increase in innovative entrepreneurs, productivity and production, which ultimately leads to economic growth in the long-run (Diebolt & Hippe, 2019; Deloitte, 2020; Tiruneh et al., 2021). In other words, it has long been believed that the human capital factor is positively associated with quality and sustainable economic growth, as this, human capital, is capable of creating efficiency, influence, creativity, innovation, and enhanced productivity (Prasetyo & Kistanti, 2020). Studies such as the one by Rahman & Alam (2021), who explored the engines of economic growth in some of the 20 largest economies in the world,² confirm the role of human capital and labour as critical factors in enabling economic growth. Knowledge is considered the main production factor, so investment in human capital is essential for competitiveness and economic growth (Becker, 1964; Barro, 2001; Singh Malik, 2018; Hanushek, 2021). Thus, employability in a knowledge-based economy is particularly highlighted by the growing demand for highly skilled workers, which also impacts existing business models and demand for change (Son-Turan, 2022). There is a growing concern that educational models are becoming increasingly aligned with the objectives of businesses. This is evident in the rapid growth of technical programs designed to train students for specific jobs. There are also concerns that the educational system is becoming too focused on the professional career and that the mission of higher education is shifting from education to

² Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Netherland, Russian Federation, Saudi Arabia, Spain, Switzerland, Turkey, United Kingdom and the United States.

human capital development and regional economic growth (Son-Turan, 2020; Sanches et al., 2021; Zepeda Quintana et al., 2022).

According to Bereiter (2002), Moore, (2007), Barnett & Bengtsen (2017) and OECD (2017), in the knowledge society, the main challenge for a country's education system is to make learning adherent and aligned with an economic model based on a knowledge-based workforce and driven by the information technology revolution. However, despite the enormous potential of the SDGs, their viability requires arduous implementation, which implies radical changes to the status quo. The achievement of these ambitious goals will bring positive rewards reflected in impacts on well-being for all (Schleicher, Schaafsma, & Vira, 2018; Schleicher, Schaafsma, Burgess, et al., 2018; Helne, 2021). However, the path to a successful implementation of the SDGs necessarily involves incorporating sustainable development concepts into business models, seeking to implement new practices that bring intended social impact. One of the most fundamental flaws in this logic is the absence of a common accountability framework that allows companies to assess, measure, and report their contribution to the SDGs (Angeli & Jaiswal, 2016; Dembek et al., 2018; Ghosh & Rajan, 2019). The extant literature offers significant evidence of the association between low educational attainment and negative implications regarding future socio-economic status (Knapp et al., 2011; Boss et al., 2016; Golberstein et al., 2016; Sosu & Schmidt, 2017; Agasisti et al., 2018; OECD, 2018). Moreover, higher education can lead individuals to better integrate into the labour market, but its role is more than that. It has a higher and more altruistic purpose. We need to explore and consider broader social aspects, such as the direct impact on economic activity, health, the environment, and ultimately, the future of generations and their way of thinking. This can help nurture and promote inclusion and strengthen social cohesion (Hajisoteriou & Neophytou, 2022). Therefore, education emerges as a critical variable to drive the UN 2030 Agenda focus on sustainability. A critical question that emerges at this point is, to what extent is and can education be used to support sustainable economic development? Given recent regress from the SDGs, particularly the economic goals (Sachs et al., 2022), this aspect is examined in the section that follows.

Education for Sustainable Development – The Challenge of Our Days and the Road to the Future

Education, as one of the most influential and proven vehicles for sustainable development, requires more holistic and urgent pedagogies. Since pedagogy is the science whose object of study is education (Murphy, 2003; Feinstein & Kirchgasser, 2015; Yanez et al., 2019), the teaching

and learning process (and as such, it is the necessary instrument for the construction of sustainable development models) - to face the challenges and goals expressed by the United Nations, and postulated by SDG4 (Quality Education) (UN, 2015; Marouli, 2021; Cebrián et al., 2020). Education can be seen both as an end and a means, capable of promoting lifelong learning and thereby providing opportunities for all in an inclusive and equitable manner (Selby & Kagawa, 2014; UN, 2015; Lange, 2019; Walsh et al., 2020; Wamsler, 2020). Based on these principles and objectives, the concepts of Education for Sustainable Development (ESD) and Education for Sustainable Development Goals (ESDG) were established to address the education system's growing challenges. ESD was confirmed in 2002 at the World Conference on Sustainable Development in South Africa, and later, with the advent of the SDGs in 2015, the broader concept of ESDG was incorporated (United Nations, 2015; Kopnina, 2020a; Kopnina, 2020b).

However, most of the challenges outlined by the SDGs can only be resolved through inclusive and sustainable economic development. This is because inequalities, growing pressures on natural resources, climate change, and social tensions are all the products of economic development models that need to be urgently revised (Adelman, 2018; Barrable, 2019; Smith, 2019; Kopnina, 2020). Moreover, this inclusivity must be achieved within planetary boundaries to ensure that natural resource replenishment rates are allowed (Raworth, 2017).

Undoubtedly, the great differentiator of ESD is its dynamism and the incorporation of a new vision of education that is more responsible and committed to building a sustainable future. This enables citizens to assume the transformative role that reality requires (Kopnina, 2018; Sinakou et al., 2018; Sinakou et al., 2019; Nousheen et al., 2020). In other words, ESD provides access to the knowledge and skills necessary to shape a sustainable future. It provides each individual with information about the state of the planet, the risks and causes of environmental issues, and the need for attitudes that promote environmental preservation, sustainable economic growth, and social justice for present and future generations (OECD, 2018b; United Nations, 2020; Priyadarshini & Abhilash, 2022). Consequently, ESD can be seen as a transformative mechanism capable of leveraging critical thinking and designing scenarios for a better future at local and global scales since regional decision-making has international effects and consequences (Rieckmann, 2017).

Energy Models and Business Activity

According to the IEA (International Energy Agency, 2021), currently, fossil fuels supply more than 80% of total primary energy demand at global levels. In comparison, more than 90% of energy-

related carbon dioxide emissions come from burning fossil fuels. This is intrinsically linked to population growth and its effects on energy demand. Some countries have a greater dependency on coal, as it is the world's cheapest, most polluting, and most available resource (Ucal & Xydis, 2020). As the world's largest energy consumer, China's economic development has been heavily reliant on fossil fuels. However, supply risks and shortages of fossil fuels are major challenges to sustainable development. Therefore, it is important for China to diversify its energy mix and reduce its reliance on fossil fuels. As suggested by Wang et al. (2019); Tian et al. (2019); Wang et al. (2020); Wen et al. (2021) highlight China's dependence on energy sources based on fossil fuels as a bottleneck for the perpetuation of its economic growth model, even with the country's efforts to reduce such dependence, promoting a shift in its energy matrix.

Extending the analysis to distinguish carbon emission levels between rich and poor economies, we can see that inequality is extreme globally and present in most countries (Institute for European Environmental Policy & Oxfam, 2021). Evidence of a marginal effect of income inequality on carbon emissions per capita supports the hypothesis that there is a trade-off between carbon emissions per capita and income inequality (Rojas-Vallejos & Lastuka, 2020). Recent research studies show that annual global carbon emissions grew by about 60% in the 25-year period from 1990 to 2015. This represents approximately twice the total accumulated global emissions. This unprecedented growth has brought the world dangerously close to over 2°C of warming and is now on the verge of exceeding 1.5°C (Kantha et al., 2020; United Nations, 2021). The current situation is dire, and we have reached this point primarily because of the lack of commitment across countries to mitigate greenhouse gas emissions. A clear example of this stance can be seen in the failure of the 2015 Paris Agreement, which is still the current climate policy benchmark for limiting global warming to below 2°C followed by the disappointing outcomes of COP 26 and COP 27 that show a global lack of commitment towards climate action. In addition, it can be noticed that in recent years, the trend has been the intention of some big polluters to withdraw from the Paris Agreement (Nisbet et al., 2019; Estrada & Botzen, 2021). The Paris Agreement is voluntary and does not explicitly penalise countries for failing to meet their commitments. However, the United States, the world's second-largest emitter of carbon dioxide, withdrew from the agreement in 2017 under President Donald Trump. China is the world's largest emitter, and both countries have high per capita carbon consumption. Therefore, a reversal of global climate change will depend on the willingness of the United States and China to take action to reduce their emissions. The successful mitigation of climate change hinges upon the cooperative commitment of both the United States and China; however, this endeavour also poses intricate

challenges for the global economic landscape. This is not just a problem for these two countries but for the world's largest and most developed economies. The symbiotic relationship between the proactive engagement of the USA and China in addressing climate change and the intricate fabric of global economic interdependencies underscores the imperative of a unified, concerted effort (Parker & Karlsson, 2018; Mildenerger, 2019; Tingley & Tomz, 2020). More recently, the war in Ukraine has significantly impacted the global energy market. The conflict has disrupted supply chains and led to rising energy prices. This has caused a setback in the European-led movement towards the use of cleaner energy sources. Countries are once again turning to fossil fuels to meet their immediate energy needs (Ozili, 2022; Umar et al., 2022; Zhou et al., 2023).

Furthermore, the COP 26 meeting in 2021 is another example of countries' lack of commitment to the planet's environmental needs that have been neglected as a result of the Russia and Ukraine war. Moreover, COP 26 and COP 27, while emblematic of international deliberations, have been critiqued for their limited substantive breakthroughs, wherein the pursuit of binding commitments and decisive actions to curb climate change has been hindered by discordant agendas and insufficient consensus among participating nations (Prys-Hansen & Klenke, 2021; Arasaradnam & Hillman, 2022; Fairchild, 2022). Notably, the world's largest carbon-emitting countries failed to articulate concrete targets for reducing emissions from their food and agricultural systems (Tobin & Barrit, 2021; Arasaradnam & Hillman, 2022; Clément, 2022).

The extreme inequality in carbon emissions between 1990 and 2015 has been discussed by Han et al. (2020), Kartha et al. (2020) and Kazemzadeh et al. (2022). With a share of 93% of total global emissions under the responsibility of the highest income groups (the richest 1%, the richest 5% and the richest 10%). The reviewed literature reveals a clear emissions-income trade-off, highlighting striking evidence of significant imbalances and inequalities between poorer and wealthier economies and challenges in diversifying economic models due to high emissions. In summary, we can see that the wealthiest strata of society account for 93% of carbon emissions, while the poorer portion for only 7% of emissions. Pollution, a by-product of economic activity, harms health and overall well-being. The poorest segment of the population suffers the most, facing increased premature mortality rates due to heightened exposure to harmful agents. Additionally, pollution causes substantial economic damage, equivalent to around 5% of a country's Gross Domestic Product. (World Bank, 2017). However, achieving a cleaner world comes with high costs, requiring a profound overhaul of production methods and social organisation as we know it. This is potentially a price that big polluters refuse to pay, which justifies the failures of initiatives like the 2015 Paris Agreement. Evidence of this unwillingness to reconsider and embrace a new production model is apparent in the outcome of the 26th Convention

of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in November 2021. Described as an apparent failure by private sector actors, civil society organisations, and activists, COP 26 aimed to bridge the gap between current climate commitments and the urgent need for transformation by both state and non-state actors. During discussions, the lack of attention given to the significant impact of food systems on climate change contributed to much of COP 26's failure.

We must delve into our past to comprehend the challenges posed by climate change. The Industrial Revolution, which began in the mid-1700s, marked the starting point of significant CO₂ emissions into the atmosphere. Before industrialisation, emissions averaged around 280 ppm. However, in 2015, global emissions surpassed 400 ppm for the first time in history. This remarkable increase implies that emissions escalated from approximately 5 billion tonnes per year in the mid-20th Century to an astounding 35 billion tonnes per year by the Century's end (Lindsey, 2021). The Industrial Revolution began in late 18th Century England and extended throughout the 19th Century, reaching Belgium, Germany, northern France, the United States, and Japan. These countries greatly benefited from this extraordinary event in human history. England, in particular, emerged as a dominant force, both economically and politically, during the Industrial Revolution. The rapid economic growth facilitated the establishment of the British Empire, which involved colonising various regions across the globe. This expansion was made possible by the availability of affordable coal as a fuel source, which played a crucial role in solidifying the new industrial model. The accessibility of inexpensive energy contributed to a decline in capital costs relative to wages, incentivising the substitution of labour with capital (Allen, 2011; Carvalho et al., 2018; Gholami et al., 2021). The evidence reveals that GHG emissions have increased along with human emissions since the beginning of the Industrial Revolution in 1750, reinforcing what was previously described. At this point, it is essential to reflect on the gains achieved by the world's most developed economies, their historical contributions to climate change, and the need to bring new perspectives to the role played by the world's less developed economies.

The link between the Industrial Revolution, rising emissions, and the subsequent buildup of CO₂ in the atmosphere transcended academic discussions. It gained significant attention in the political sphere, particularly during the 1980s when concerns regarding global warming became prominent. One notable instance was UK Prime Minister Margaret Thatcher's renowned address to world leaders at the United Nations Assembly on November 8, 1989. In her speech, she stated the following:

"What we are now doing to the world, by degrading the land surfaces, by polluting the waters and by adding greenhouse gases to the air at an unprecedented rate—all this is new in the experience of the Earth. It is mankind and his activities which are changing the environment of our planet in damaging and dangerous ways (...) We are seeing a vast increase in the amount of carbon dioxide reaching the atmosphere. The annual increase is three billion tonnes: and half the carbon emitted since the Industrial Revolution still remains in the atmosphere." (Margaret Thatcher Foundation, 2022)

Climate change and water scarcity stand out as significant challenges in our era when it comes to aligning with a sustainable development framework. However, the scope extends beyond these issues, as a sustainable development model entails attaining various markers of social welfare. These include education, healthcare, security, equality, economic growth, and the eradication of hunger (Gödecke et al., 2018; Omer et al., 2020; Lenaerts & Demont, 2021). According to Zhang et al. (2020), the world is currently confronting a distressing scenario, with the potential for a tumultuous future marred by environmental imbalances and intense pressures on natural resources, posing a threat to human survival. Economic and business activities have already begun generating adverse consequences that impact the delicate cycle of life. Society is increasingly mobilising, urging governments and civil society institutions to go beyond rhetoric and take practical actions towards sustainability goals. A collective effort is underway to halt or at least slow down the ongoing changes. In this context, the role of education emerges as crucial, as a shift in direction becomes imperative. Urgent reevaluation and proactive measures are needed to transform our current production systems. Global leaders in economics and politics must redirect their focus towards sustainable lifestyles, recognizing the gravity and urgency of environmental issues, climate change, biodiversity loss, and other challenges of the Anthropocene caused by profit-driven choices and outdated fossil fuel-intensive processes. Climate change stands as perhaps the most significant and far-reaching market failure ever witnessed. To mitigate its effects and even reverse its course, countries must reassess their investments in human potential through educational systems, necessitating radical changes to existing educational models (Nordhaus, 2019; Palmer & Stevens, 2019; Rocklöv & Dubrow, 2020). For education to fulfil its transformative role in society, it must focus on equipping students and future generations with the necessary knowledge, skills, values, and attitudes to actively contribute to sustainable development. However, it is equally vital for governments and civil society to embrace and advocate for the teachings of sustainability. This collaborative effort ensures a harmonious promotion of sustainable development, intertwining the concepts of sustainable development and education as

inseparable components (UNESCO, 2018). And here, this new vision of education is in line with the vision and mission of institutions such as EUT+ (European University of Technology). According to EUT+ website, “EUT+ represents a consortium of eight universities funded by the ERASMUS+ programme call seeking to bring Europe, Universities and Technology together. Here is our shared vision on each of these principles, as articulated around our central pillar “Think Human First – European values empowering technology” (European University of Technology, 2021). We argue on the need of an educational paradigm shift towards engaging in building an inclusive and sustainable future in the face of unprecedented challenges such as climate change, excessive use of resources, the growing inequality and social impacts of the digital age faced by humanity today. The contemporary paradigm of education transcends its traditional boundaries, evolving into a dynamic instrument for constructing an inclusive and sustainable future amidst the formidable challenges of our era. Recognising the imperatives of climate change mitigation, judicious resource stewardship, and redressing widening social disparities, this new vision of education embodies a pivotal role in nurturing environmentally conscious citizens, fostering innovative solutions, and instilling values of equity and social responsibility, thereby empowering generations to navigate the intricate terrain of the digital age while forging a resilient and harmonious global society. According to this analogy, the answers to these challenges must take into account the needs and aspirations of people and our environment. At the same time, we need to respect freedom and diversity by reaching, through training, the responsible entities so that we can achieve the concept of “Thinking Human First” as a basic assumption for the development of our society. Therefore, Education for Sustainable Development (ESD) is pivotal in the imperative transformative agenda we currently require. It represents the convergence of two fundamental concepts that can guide us towards a fairer and more sustainable society. The significance of ESD is explicitly acknowledged in Goal 4.7 of the Sustainable Development Goals (SDGs), where it is recognised as a crucial instrument for attaining the remaining 16 SDGs (United Nations, 2015). As the search for new alternatives in our mode of production and consumption is crucial and constitutes tasks for all of us, the next section will analyse the importance of the education process in this context.

Educating the Government, Businesses and the Population about Economic Sustainability

Globalisation and increased international trade have led to economic liberalisation on a global scale. This has intensified competition among countries, resulting in a differentiation between economically prosperous nations with competitive and comparative advantages. The degree of specialisation within each country plays a critical role in determining its position in this landscape. Developed economies typically exhibit specialisation across multiple sectors, leveraging various competitive advantages in the global market. The level of education and training of a country's workforce significantly influences its economic performance. A developed economy relies on a specialised workforce capable of operating complex production systems, fostering innovation, and sustaining competitive advantages. While other factors, such as resource availability, also contribute to a country's competitive edge, the qualification of the workforce plays a vital role in distinguishing between developed and developing nations. Moreover, it serves as a critical driver for generating positive externalities within the economy (Delgado et al., 2014; Hanushek, 2016; Singh Malik, 2018; Hanushek & Woessmann, 2021; Maneejuk & Yamaka, 2021).

The adoption of the 2030 Agenda for sustainable development brought about a significant shift in priorities regarding education. It highlighted the crucial role of education, no longer confining it solely within the realm of schools but placing it at the heart of strategies to foster sustainable development. It is essential to recognise that educators, governments, and business leaders possess the power to shape the mindset and actions of future leaders. This creates an opportunity for a virtuous cycle, where education, guided by the Sustainable Development Goals (SDGs), plays a pivotal role in nurturing a collective journey towards sustainability (Rao & Ye, 2016; Bento Ambrosio Avelar et al., 2019; Das et al., 2020; Fabbri & Dari-Mattiacci, 2021; UNESCO, 2021). Given that a society's educational standards are a fundamental element in defining its degree of success in dealing with complex issues to promote development, we can infer that the educational level of its leaders directly influences the achievement of the SDGs, which is why the process of educating is also of vital importance for governments (Kolb et al., 2017; Avelar et al., 2022; Frizon & Eugénio, 2022; Greenland et al., 2022).

The attainment of Goal 4 holds strategic significance, as it directly influences the progress of other goals, triggering a cascade of benefits across the Sustainable Development Goals (SDGs). SDG 4 is important in its own right and plays a fundamental role in achieving the other sixteen SDGs, many of which have specific education-related targets. Hence, describing SDG 4 as a universal and transformative goal is fitting. Its principles address global challenges related to education, encompassing access, inclusion, equity, and the quality of life derived from learning outcomes at all levels. We argue that the education system should offer improved social and employment

opportunities while adopting a broader approach to individual development, fostering global citizenship and embracing sustainability principles (Ferguson & Rooft, 2020; Elmassah et al., 2022; Kohl et al., 2022). For example, the eradication of poverty is directly influenced by SDG 4 as it can help break the perverse vicious cycle of poverty. Education, as a potent catalyst for socio-economic transformation, can rupture the cycle of poverty by cultivating critical skills, empowerment, knowledge generation and sharing that can lead towards creating opportunities for all. By equipping individuals with a holistic toolkit of knowledge and abilities, education engenders the capacity to secure gainful employment, innovate, and navigate complex economic landscapes, thereby fostering upward mobility and breaking the shackles of intergenerational poverty.

Conclusions

The role of education as an indispensable and predominant tool for achieving sustainable development for a more just and egalitarian society is indisputable. We are no longer restricted to the idea that education is a variable that does not impact economic development. Robert Lucas, an American economist who was a Nobel laureate in 1995 and one of the most influential macroeconomists of the 20th Century, showed us the opposite. Through the progress of science and building upon the knowledge of our predecessors, we are presented with a remarkable opportunity for evolution. This evolution reveals that one of the primary determinants of a nation's prosperity is the accumulation of human capital through education. Education acts as a catalyst, creating a virtuous cycle that fosters the creation of more equitable conditions, enabling people of all ages to acquire the skills necessary for better employment and improved lives. Consequently, it is imperative for governments to prioritise investments in education to combat sources of potential inequality.

While investment in education is crucial, it is equally important to implement rigorous evaluation and control measures to ensure that resources are allocated and utilised effectively, thereby achieving the desired outcomes. The pursuit of economic development has long been a driving force in our society, occupying a prominent position in the priorities of economists, policymakers, and governments. The significance of economic development and its status as the "holy grail" of economic science cannot be underestimated, as it is through development that we attain well-

being and accommodate population growth, providing future generations with the necessary conditions for survival. This foundation justifies the continuous quest for growth. We cannot forego economic growth, as the consequences would be unimaginable, potentially leading us towards regression and chaos. Hence, reevaluating the concept of economic growth is crucial, with the primary aim being sustainable and inclusive growth that fosters progress, creates decent jobs, and enhances living standards. The underlying logic is that growth enables us to share the wealth we generate. Looking ahead, our greatest asset is the intellectual wealth accumulated through human capital, with education playing a central role in its accumulation. This intangible wealth will collectively empower us to construct a better world through more altruistic endeavours.

This research paper concludes with Paulo Freire's quote, a Brazilian Educator (1921-1997) that communicates to which extent education should be cherished and nurtured, "*Education does not change the world. Education changes people. People change the world.*" Our discussions bring us to the concept of "*Thinking Human First*" as a fundamental element for reviewing our mode of production and consumption based on an exacerbated vision of the search for profit maximisation and economic growth. As such, we might reconsider what growth means and how economic elements might need to be revisited. The current catastrophe scenario to which we are already subjected is proof that our modes of economic growth and development have failed, as it has promoted social exclusion and environmental degradation, compromising life as we know it on our planet. It is no exaggeration, therefore, to infer that our future as a species and the continuity of life depend on a sudden, abrupt and rapid change in our attitude towards sustainability and our understanding of economic growth and progress.

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UNDERSTANDING ECONOMIC SUSTAINABILITY THROUGH THE LENS OF EDUCATION -INSIGHTS FROM HIGHER EDUCATION IN IRELAND

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ABSTRACT

The IPCC's 6th Assessment report reasserts overwhelming evidence that global warming is primarily due to anthropogenic activities causing imbalances in the carbon cycle. Our economic reliance on fossil fuels for industrialisation, urbanisation and farming exerts pressure on the Earth system. Population growth, affluence and technology represent significant sources of environmental pressure. Rapidly dispersed anthropogenic deposits constitute an alarming cause of modification of the Earth's crust, which has already become overwhelmingly dominant over nonhuman ecological processes. The current trajectory of socio-ecological interaction risks irreversible changes to the Earth system, where positive feedback may propel our life-supporting ecosystems beyond tipping points. The disappearing Greenland ice sheet, the clearing of the Amazon for farming, coral bleaching, the slowing of Atlantic thermohaline circulation and the melting of the Yedoma permafrost are highlighted as early warning signs.

Despite the continuance of environmental and humanitarian problems, there are opportunities for creative remedies to emerge in concert with our increased understanding of these problems. In this context, education is uniquely positioned to promote, envision, and lead change in the direction of the United Nations 2030 Agenda and the identified Sustainable Development Goals (SDGs). This paper critically examines the need for high-quality learning and teaching to support an effective Education for Sustainable Development provision. In particular, we seek to understand the importance of higher education in driving meaningful change, reflecting on Ireland's economic and educational model for fostering sustainability as a useful case-study.

Keywords: Economic Sustainability, Education for Sustainability, Sustainable Development Goals.

INTRODUCTION

The United Nations (UN) summit in Johannesburg in 2002 highlighted the importance of education as a catalyst for the world's robust economic development and sustainability framework (Von, 2004). Since the Johannesburg Summit, little has been accomplished, and nations' devotion to promoting sustainability objectives many of environmental and humanitarian problems remains as acute as ever. Education for sustainability (ESD) in higher education institutions (HEIs) faces some critical challenges when actively promoting and in particular concerning the implementation of sustainability practices that drive change (Mokski, *et al.*, 2023; Enberg & Harlap, 2021). Scholars involved in sustainability education encounter challenges such as a lack of agreed understanding and aims for sustainability education, a lack of institutional incentive systems, and a lack of financial and time resources. All of these are obstacles that need to be addressed if we seek to succeed in meeting the UN SDGs.

Education is identified as a key driver of the knowledge economy, and as such, it is a critical variable that deserves the attention of our political and economic leaders. In a knowledge economy, the value of education is linked to increased human-caused economic activity (Sibinga *et al.*, 2022). Likewise, there are significant links between education and economic development. An economy's long-term development is influenced heavily by its human capital, one of the externalities of the knowledge economy's production process that encompasses education, skilled labour, research, and training. Human capital underpins advancement and the maintenance of competitive advantages that have historically help nations to grow and progress. Furthermore, updated research studies provide evidence on how education contributes to empower workers as the need for more technically proficient professionals grows within our knowledge and digital driven economy (Li *et al.*, 2023; Wujarso, 2023; Zenkteler *et al.*, 2021).

The Irish higher education sector provides an interesting context to explore due to the country's successful story in transitioning from an impoverish economy towards one of the world's richest economies. Human capital is, arguably, Ireland's most valuable economic asset and it is a significant engine of economic, social, and cultural advancement. Ireland relies on a well-educated

workforce that can adapt to changing economic, environmental, and societal objectives. Yet, its higher education faces two main hurdles in supplying its populace with job-market credentials and skills. It has, at least until recently, suffered from persistent underfunding and the sector transition towards the tenets of neoliberal policies emerge as an area of concern (Chapman & Doris, 2019; Mercille & Murphy, 2017).

In this paper, we seek to critically evaluate Irish higher education and its initiatives to lead transformation for positive impact. Given the most recent regress from the SDGs, this evaluation is all the more urgent as it studies the Irish Educational Landscape to better understand the role HEIs may play in pushing the UN 2030 Agenda focused on driving sustainability. Having provided the context and outlined the objectives, the remainder of the paper is organised as follows. The discussion proceeds by offering some initial insights on the importance of the proposed research and the value of education in promoting sustainability. The analysis continues with a brief discussion on education for action and to drive meaningful change, and the research paper finalises offering some insights examining the case of Ireland.

EDUCATION TO PROMOTE ECONOMIC SUSTAINABILITY

Education is regularly cited as one of the first steps in the path of the development process (Berchin et al., 2021; Pizzutilo & Vanezia, 2021). Sachs *et al.* (2019) recognise education as a cornerstone in building and nurturing societies that foster the transformations to set us on the path to sustainable development, underpinned by socio-economic and environmental pillars. According to the United Nations Education, Scientific, Culture and Organisation (UNESCO), sustainable development is development that meets the needs of the present without jeopardising future generations' ability to meet their own needs (WCED, 1987). The Organization of European Countries Development (OECD) defines sustainable development as a long-term and global balance of development's economic, environmental, and social dimensions. It entails a broad view of human welfare, a long-term perspective on the consequences of today's actions, and full participation of civil society in reaching solutions (Vuuren, 2022). The World Bank recognises sustainability as a vehicle to reduce poverty and share prosperity, whilst meeting the needs of future generations, in which policies are inclusive with meticulously planned actions that seek to provide immediate and long-term benefits (Adedoyin *et al.*, 2021).

This research paper aligns with the ideas, themes and goals proposed by the world's institutions most relevant to sustainable development. For instance, the World Bank's initiative to support quality education; UNESCO'S initiatives focused on meeting societal through education and the OECD's interesting advocacy for education that touches on the economic, social and

environmental aspects of sustainability. The consideration of the views of these organisations will be considered in this paper by recognising the interdependence of quality education with other sectors and various SDGs regarding economic dynamics, growth and development. Education is crucial to developing human capacities and boosting economic prosperity. The impact of education on economic growth include improvement in production efficiency and development of educated and trained individuals that possess the necessary technical, and technological know-how skills to use organisational resources efficiently (Osmani & Jusufi, 2022). According to Muringani *et al.* (2021) economic growth is strongly tied to education (as a proxy for human capital).

Education is viewed as way to promote both peace and prosperity. Raworth (2017) suggests minimum access levels to essential resources, such as energy, food, water an infrastructure are required to live with dignity, placing a social foundation for well-being within planetary boundaries. But to achieve the goals, strategies are needed to improve health and education, reduce inequality, and drive economic progress (Sari *et al.*, 2022). According to the UN SDG Tracker website, one in every five individuals in the world's less-developed economies lives on less than \$1.90 per day. The UN SDGs are quite diverse with 17 goals and 169 targets to be met. The United Nations 2030 Agenda is very ambitious, and it leads towards significant debate as we consider how the world economies should start addressing the defined goals and targets. A natural question emerges: with which one the SDGs do we start? We argue that SDG 4 is critical to help us achieve the rest of the SDGs due to the generation of synergies and the multiplier effects that it creates. But to achieve change, we need educational models that drive action and impact, aspects that are examined in the subsection that follows.

Education for Change, Action, and Impact

At the UN General Assembly in 2015, the international community adopted the 2030 Strategy for Sustainable Development, also known as the UN 2030 Agenda. Warchold *et al.* (2022) explain that the SDGs represent a comprehensive collection of seventeen goals with 169 targets approved by UN member states as an international development agenda to be accomplished by 2030. Clark *et al.* (2022) highlight the interrelated nature of the goals, where actions to address one goal can lead to outcomes that affect other goals. In their simplest form, the goals seek to strike a balance between social, economic, and environmental sustainability. Moreover, the SDGs are intended to recognise the interdependence of human well-being, economic development, and environmental health. The awareness of interconnections between current challenges can be framed in the context of the SDGs. The emergence of nexus thinking as a lens for holistically addressing

interconnected and cross-cutting challenges (Veland *et al.*, 2022). For example, natural resources are being depleted, placing further strain on remaining natural resources to meet the needs of an increasing population. This creates positive feedback loops, accelerating the depletion of natural resources and the degradation of the environment, exacerbating climate change impacts and raising levels of conflict between nations.

Peoples' awareness of sustainability is enhanced by quality education, particularly in relation to the significance of developing economic models that are sustainable and in line with current requirements for the development and advancement of our modern society. We argue on the importance of increasing our understanding of the necessary skills, values and behaviours connected to environmental stewardship if we aim to promote and lead effective and significant transformation where the energy sector has a critical role to play. Energy emerges as a significant variable to consider due to the strong correlation between a country's economic and educational development and its energy consumption (Acheampong *et al.*, 2021). Energy requirements for developed countries with lesser educational attainment are lower than for those with strong economic growth and educational accomplishment nations. Furthermore, urban regions are heavily dependent on energy because of the fast economic growth and the needs of the dense urban population. Such high urban consumption of energy derived from fossil fuels that remain the dominant energy source, can degrade the urban environment, as shown by urban heat islands and increasing greenhouse gas emissions (Ekeocha, 2021; Kuddus *et al.*, 2020).

Another relevant aspect to be considered relates to the interlinkages of the different SDGs and how they can lead towards socio-economic and environmental positive spill over effects. Zaidi *et al.* (2019) posit that health, economic growth, quality education, and climate control are top priorities. As a result, it is critical to pursue sustainable development in a manner that minimises health, energy, and environmental costs by developing new technologies and supporting quality education for future generations. Moreover, it is seen as essential that development in one area does not come at the price of progress in another. This is a difficult task, as the SDGs highlight targets and areas of interest that emerge as competitive in their own nature. As such, countries need to engage in a balancing act as they identify their priorities. SDG 3 (health and wellbeing) aims, for example, may be found in other goals like SDG 1 (no poverty), SDG 2 (zero hunger), SDG 6 (clean water and sanitation), and SDG 10 (reduced inequities) (ICSU, 2017). The SDGs were thus credentialed as a system of benchmarks with interconnections between areas of the economy, including synergies and trade-offs linked to their management (Fonseca *et al.*, 2020), where interconnectivity is well ingrained into the SDGs' architecture.

A core consideration is how education emerges as a driver for action, change, and impact. As education promotes values of academic integrity and freedom, it provides opportunities to nurture critical thinking, questioning, and knowledge sharing. Therefore, the educational system offers significant opportunities to create a critical mass that is characterised by diversity of skills to develop new ideas for social change through bold experimentation (Fitzgerald, 2022). Education has also been central to fostering technological advancement (Ivanova & Rimanoczy, 2022). Diemer *et al.* (2020) and Adiq (2011) argue that to achieve economic sustainability, educational institutions need to have the capacity to educate for sustainability. In addition, we argue that educational systems need to acknowledge financial and economic inequalities as a driver of exclusion and a contributor to increasing socio-economic imbalances. Consequently, efforts are needed to provide appropriate mechanisms that do not exclude those with insufficient resources to afford quality education. We also argue that, to achieve desired change, HEIs should offer a holistic education provision that integrates different areas of expertise into a common interdisciplinary environmental, economic, and social educational model. Pohl *et al.* (2021) claim that an interdisciplinary approach to research entails the creation of descriptive, normative, and practice-oriented knowledge to aid in issue-solving, risk mitigation and problem prevention. To do this, one must have the ability to comprehend the sophistication of challenges, take into consideration the uniqueness of science based and real-world challenges, connect conceptual and contextual insight, and establish techniques that endorse what is viewed to be the public benefit.

Education for economic sustainability requires further attention, as there is a need to identify how sustainability can be embedded in the local business community (Rahman *et al.*, 2022; Allen *et al.*, 2019; Hopkins & Mc Keown, 1999). Teaching methodologies and curricula must be tailored to the community's needs, for instance, increasing awareness, community integration, and social adhesion while equipping individuals to live, work and conduct business sustainably within their communities.

Education to Build Sustainable and Peaceful Societies

As we seek to explore further the role of education in building more sustainable societies, it is interesting to examine the UN 2030 Agenda and how updated research studies are considering it. For example, Serafini *et al.* (2022) argue that education is critical to accomplishing Agenda 2030's other goals, which means that education can be considered the key to articulating the remaining 16 SDGs. Sharing the same line of thought, Artyukhov *et al.* (2022) explain that SDG4 aims to ensure an inclusive and equitable society; moreover, the goal aims to promote lifelong

learning opportunities for meaningful change. Mmari *et al.* (2022) assert that quality education is essential for sustainable development, and that the role of teachers, teacher educators, and curriculum is critical in accomplishing the aim of inclusive and quality education. The SDGs are conceptualised as a network of interconnected goals. Hence, by enabling and promoting synergies, the SDG goals' interrelated nature opens the way to creating co-benefits in execution rather than being viewed as merely a compilation of objectives and targets (Scharlemann *et al.*, 2020). The reviewed literature shows how SDG 4, which focuses on acquiring quality education, is a crucial component of the UN's Agenda 2030.

Educating people about the value of healthy nutrition and sanitation yield benefits from progress toward SDGs relating to energy, cities, and infrastructure. Education is more resilient in the long run if other SDGs are implemented to combat hunger (SDG 2), provide clean water (SDG 6), and improve health (SDG 3). However, disparities in accessing high-quality education negatively impact the success of the SDGs (Kohl *et al.*, 2021; Shulla *et al.*, 2021). So, many of the SDGs place education at the centre of this global plan for long-term development. Menon and Suresh (2022) add further insights, suggesting that HEIs should provide a conceptual educational framework for sustainable development and lifelong learning opportunities. They must also lead by example by adopting sustainable communities themselves. HEIs play an increasingly important role in achieving new global goals because education generates leaders and professionals committed to sustainability across all sectors (Nejati & Nejati, 2013). Research studies suggest that higher education plays a prominent role in society, with potential to directly impact the SDGs (Mallow *et al.*, 2020; Ramasio *et al.*, 2019). According to Sustainable Development Solutions Network (SDSN) Australia/Pacific, (2017) HEIs provide a far substantial contribution to the SDGs, as they not only add to the success of each goal but also to the execution of the SDG framework itself. Moreover, Mori *et al.* (2019) and González-Torre *et al.* (2022) highlight the significance of HEIs in embracing, advocating, and promoting the UN SDGs.

As previously explained, SDGs are tied to environmental, economic, and social sustainability factors. SDG 4 (education quality) is also linked to other SDGs. Furthermore, education is connected to the SDGs on social sustainability: SDG 2, no hunger, SDG 8, decent work and economic growth, and SDG 3, good health and well-being. The connection between education and sustainability is integral to SDG 4, particularly SDG 4.7, ensuring that all learners acquire the knowledge and skills required to promote sustainable development. As we reflect on the importance of different SDGs, once more we align with the idea that education emerges as the enabler of the UN 2030 agenda. There is a need to reconsider existing investment strategies and

their significance to the development of human capital, and that means that more resources are needed to support education and research activities. Recognising the need for holistic approaches, we argue that ESD should be based on a paradigm that offers comprehensive education, guiding students' learning across all stages and segments of schooling and takes place in a supportive classroom culture. This is especially significant, since ESD should foster a constructive viewpoint in which information is only one aspect and is combined with mindsets, values and skills needed for long-term transformation, as well as promoting sustainability competencies.

CORPORATE SOCIAL RESPONSIBILITY AND GOVERNMENT SOCIAL RESPONSIBILITY

Sustainability, corporate social responsibility (CSR), government social responsibility (GSR), and business ethics have long been related touchstones in industry and academia (Mogaji *et al.*, 2021). Arguably, the SDGs represent an 'indivisible whole', a network of connected goals that can only be attained in concert (Bornemann & Weiland, 2021). The context of CSR in higher education includes a variety of initiatives aimed at developing skill sets, attitudes and actions among students, faculty, and institutional leaders. This may be seen in the increasing integration of social education, service learning, volunteerism, and collaborative learning within the curriculum (Pizzutilo & Venezia, 2021). Existing studies show evidence of multiple education procedures that have been amalgamated across GSR and CSR policies, in which the GSR establishes legal structures and the CSR defines the trajectory under which HEIs move in accordance with sustainability (Avelar *et al.*, 2022; Fonseca *et al.*, 2021; Leal Filho *et al.*, 2021).

Regarding CSR in higher education, Ireland provides a useful case to explore. The 1997 Universities Act introduced several goals, such as enhancing society's cultural and social life. The Act aimed to facilitate economic, environmental, and social growth, and disseminating research findings. Cromien (2000) mirrors flaws in policy formation at Ireland's Department of Education and Science. Cromien (2000:2) highlighted that the '*department is so concentrated on dealing with short-term and operational difficulties that it appears to lack room to take a balanced approach to policy formulation.*' The number of researchers in Ireland who work on educational research, such as policy-relevant studies, is about average for a country its size (OECD 2020, 2007). Yet, public investment in social sciences is particularly low when compared with public investment in science, technology, engineering, and mathematics (STEM) research (O'Connor, 2022; Eurostat, 2020). Considering the percentage of higher education research and development budget expenditure by areas study, social science receives 18 per cent of funding whereas STEM receives 69 per

cent (Department of Enterprise Trade and Employment, 2021). The Chief Inspector's report at the Department of Education, published in March 2022, highlights the chronically insufficient provision of teacher Continuous Professional Development to complement the work done in schools to serve students with special educational needs. There is a clear need to help schools comprehend and promote ESD (Department of Education, 2022). The modest output of peer reviewed educational research in higher education in Ireland is spread thinly across the universities and other institutes of higher education in Ireland (O'Connor, 2022). Furthermore, the integration of research into undergraduate and postgraduate education requires enhancement if Irish Higher education is to contribute more effectively to pressing sustainability issues.

Experts acknowledge that CSR creates significant problems for HEIs. For instance, HEIs are required not merely to generate graduate expertise, but to build an open-ended communication across the dividing line between the HEIs and wider society (Dmytriyeve *et al.*, 2021; O'Connor, 2022). Dmytriyeve *et al.* (2021) argue that the government must keep up with the rapid pace of development in information technology. However, unlike companies, governments are hampered in their abilities to manage and lead because long-term objectives are abandoned in favour of short-term frameworks. The public sector needs critical reform in its policy formulation. The genesis of public policies needs to be established from credible evidence bases that are current and from relevant studies, communicated through research findings. These should form the bedrock of public education policies capable of stimulating legislative debate (O'Connor, 2022). It is critical for HEIs to have coordinated efforts to accomplish the SDGs, by recognising that education is a *'key to success'* for responsible leaders capable of collaborating and promoting long-term sustainable growth.

EDUCATION FOR SUSTAINABILITY IN IRELAND

This section offers insights regarding ESD in Ireland. Research suggests that Irish HEIs need to align with corporate and government stewardship in pursuit of more ambitious approaches to long-term ESD policy. HEIs cannot be considered entirely distinct from economic activities or disconnected from the needs of our financial systems and, therefore, need to extend beyond their traditional remits (Bahmani & Hasanzade, 2022; Cochran, 2021; Hidalgo, 2021). Eggins & West (2010) highlight the long-term repercussions of the 2008 Global Economic and Financial Crisis (GEFC) for HEIs. Beginning in 2009, five successive budgets in Ireland deployed austerity measures in response to the GEFC. To date, measures that have touched all Irish public employees include an extra income levy (up to 6% of salary) and a doubling the health levy (up to 5% of income). Both were introduced in the 2009 budget before being merged into a single

'Universal Social Charge'. Education accounts for almost 20% of overall government spending, following only social welfare and healthcare. Because the state funds the bulk of Irish education, all public sector budgetary policies directly influence Irish education (CSO,2021,2009).

Hopkins & McKweon (2001) argue that great efforts are needed for any education system seeking to pursue successful ESD. The Irish government introduced ESD as a strategic goal over a decade ago, recognising early a need for every individual in Ireland to have access to education, to learn about their rights and duties as global citizens, as well as their ability to affect change for a more fair and equitable world (Department of Education and Skills, 2007:28). However, a recent OECD (2021b) study indicates that Ireland lags in education investment; the expenditures on education were approximately 3 percent relative to GDP, in contrast to the 4.5 percent OECD average. Darmody *et al.* (2021) claim that the effects of the Global Health Crisis in 2020 have emerged as a wake-up call for the Irish government. Its ongoing effects have helped to expose shortcomings regarding digital infrastructure, with worrying insights regarding emerging disparities in the national, sectoral, and educational fields. In addressing these shortcomings, a second National Strategy for ESD was launched in 2022, this time with a detailed implementation plan focused on advancing policy, transforming learning environments, building educator capacity, mobilising young people and accelerating local action (Department of Education, 2022). Several universities have assumed leadership roles in advancing the ESD agenda. University College Cork, NUI Galway and TU Dublin all appear in the Times Higher Impact rankings. TU Dublin's inaugural strategic plan is written through the lens of the SDGs (TU Dublin, 2019).

Rose *et al.* (2015) explore the issue of diversity, equality, and inclusion in Ireland, affirming that SDG4 asks for inclusive and equitable quality education and the promotion of lifelong learning opportunities for everyone by 2030. Many instructors are hesitant to educate pupils with special needs or from diverse ethnic backgrounds. This leads us to critique the Irish government's role in investing and developing strategies that respond to a growing and diverse society and the need to examine and gather evidence and track progress on policies that drive outcomes in order to implement the 2030 Agenda (Howe & Griffith, 2021; Murphy, 2019; Rose *et al.*, 2015). Fleming (2020) review existing educational shortcomings and the importance of offering more support to Irish higher education as it seeks to contribute to the SDGs. *The role of higher education in achieving the SDGs is based on landscapes, policies, and systems that interact with each other. HEIs partake in many initiatives, including environmental stewardship, gender equality, quality education, and improvement. As such, universities play a social and economic role in establishing upcoming generations and preparing future leaders for sustainability transition (Murphy, 2019).*

Academic institutions are well-positioned to form strategic alliances and, therefore expand their footprint well beyond the ideological bubble of academia (Budihardjo *et al.*, 2021). However, Irish HEIs are confronted with significant issues, such as budget limitations, increased expectations, gender imbalances, and the impact of COVID-19 exacerbated existing inequalities (CSO, 2020e). HEIs operate in a competitive market, compounded by the necessity to raise finances from various sources in the face of declining government support and in alignment with corporate goals. Individuals on campus are also under stress. Academics are expected to publish in prestigious journals, get research funding to advance their careers, and catapult their institutions into the international and global rankings lists. As a result, learning and teaching receives less attention, which has been particularly difficult in Ireland due to higher student-staff ratios than elsewhere (Goulart *et al.*, 2022; Tomlinson & Watermeyer, 2022; Kwiek, 2021).

In 1995, Ireland began removing full-time undergraduate tuition fees. These fees represented a twenty percent increase above the standard rate at public flagship universities in the United States at the time. At the same time, tuition costs were shifted to a system of registration fees charged to every student. Despite the fact that these expenditures were just \$200 in US dollars at the time, which is equivalent to \$3,600 in US dollars now, the underlying worth of these expenditures has grown by a factor of 10. This is more than most EU nations now charge, yet lower than the normal tuition levied in the United States (University World News, 2021). Another major source of worry is the growth in mental health issues among students as they confront pressures such as transitioning to college, tuition, loan debt, test stress, and a highly competitive job market (IUA, 2020). Further significant aspects to consider relate to gender inequality and its effects in many spheres of society, despite the introduction of equality legislation (European Commission, 2021). Women are under-represented in technical occupations, accounting for 24.9% of self-employed professionals in STEM. Moreover, women are underrepresented in academic institutions at the highest academic levels (26.2 percent), reflecting the global issue of gender inequality in higher education (European Commission, 2020b). The 2030 Agenda provides an opportunity for universities to reassess their position as institutions of higher learning and shed light on the benefits of incorporating principles and practices for sustainability in their mission and core values. In light of this, Irish universities have recently initiated efforts to help bolster obligations to sustainability by establishing a wide range of digital resources to assist teachers and administrators with integrating the SDGs into curricula. Ireland's National Forum for the Enhancement of Teaching and Learning in Higher education has recently launched a digital badge in ESD aimed at building educator capacity. Technological University (TU) Dublin has already started and implement the SDGs and include the concept of sustainability into its courses,

programmes, events and projects, policies, and campus management plans, all of which have an impact on the 17 SDGs.

Furthermore, formal CPD for academic staff and informal communities of practice (Behan et al., 2022) have been rolled out across its faculties, providing space for consideration of the SDGs in curricular, co-curricular and extra-curricular offerings. The university has been among the first to appoint a vice president for sustainability and is actively building out an organisation design to achieve its strategic intent to 2030. TU Dublin, Ireland's first Technological University, has begun to consider how to address and implement SDGs and includes the concept of sustainability within its curricula, initiatives, events, projects, governing bodies, strategies, and campus management plans that are impacting the 17 SDGs (TU Dublin Report, 2021). The University access service, which assists communities in overcoming socio-economic barriers to higher education, and the TU Dublin Foundation, which involves multiple projects to improve the experience of students by promoting education for marginalised communities, assisting in the transformation of educational facilities, and helping communities in developing closer links with TU Dublin (TU Dublin Report, 2021). Furthermore, the university has specific journals dedicated to sustainability issues that contribute to the dissemination element of research contributions in the area.

Several networks have begun to assemble good practices and cases from HEIs to serve as role models for other academic institutions. The main goal is to contribute to how they can take action. For example, in 2021, Trinity College ranked 57th globally for implementation of the Sustainable Development Goals, 5th in the world on gender equality and 26th in the responsible consumption and production by the Times Higher Education impact rankings. The reviewed literature shows encouraging evidence on progress made. Still, there are some constraints as well. For example, access for low-income students was the driving force behind Ireland's decision to make higher education completely free in 1995 (University World News, 2021). In spite of this, historical data shows that Ireland has had very little growth and the percentage of students from low-income homes attending college has increased over the past two decades, they are still vastly outnumbered by those from affluent backgrounds (HEA Newsletter, 2022). In terms of the quality of education, the Irish Higher Education System Performance Framework are receiving extremely positive feedback from participants in international debates (European Universities Initiative, 2021). However, the moderate rise in resources coupled with a far more rapid growth in enrolments over time has put a strain on the system. This has resulted in greater student-to-faculty ratios and degradation of numerous facilities and pieces of equipment (RIA, 2021). However, after

the implementation of free tuition, many people have seen a decline in standards at Irish institutions (University World News, 2021).

Furthermore, efforts to provide students with an education free of tuition were to be successful, the government would need to continue investing enormous sums of money in order to compensate for the tuition costs that students would have been required to pay and to provide educational institutions with more resources (European University Association, 2021). If there is not a substantial financial commitment made over a long period of time the level of quality within the educational sector will suffer, especially if the number of students dramatically increases. When tuition fees were done away with in the 1990s, Ireland's modest registration fee appeared like a fair approach to ensure that students would still pay certain costs (University World News, 2021; OECD Education at a Glance, 2019). However, due to the rapid increase of registration fees throughout time, a significant portion of the money that would have been spent on tuition has been substituted by these fees instead. Therefore, receiving a higher education in Ireland does not come cheaply anymore. In this way, Ireland is comparable to a number of other nations and states in the United States, such as California, in that tuition is not paid but fees can be rather expensive (Zurich Cost of College Education in Ireland survey, 2022).

Additionally, there appears to be a discriminatory approach in the payment of tuition fees in Irish education because of the imposition of different types of fees depending on nationality; for example, undergraduate tuition and fees in the EU are capped at €3,000 per year, whereas those of overseas students might pay between €25,000 and €55,000 per year (University College Cork, 2021). In light of this, universities have become too dependent on tuition revenue as a result of the drastic reduction in public funding for higher education on an individual basis, and it is acting as a source of economic and financial exclusion. This may birth reputational harm to the entire breadth of the student experience attending colleges in Ireland (Irish Times, 2020). As a final thought, we reflect on the value of education and its significant role to foster economic growth and development and the mismanagement of human capital as a significant amount of the population that cannot afford an education is neglected, clearly failing with the UN vision of “leaving no one behind”.

CONCLUSIONS

A solid, long-term ESD policy in Ireland requires HEIs to collaborate with the private and public sectors. HEIs are intertwined with economies and monetary systems. Ireland implemented austerity measures in response to the Global Economic and Financial Crisis including new taxes

on the salaries of government workers. These policies had an impact across all industries, including education. Despite government efforts to reinvest in higher education, funding levels are still below what they were before the 2008 recession, putting pressure on schools with rapid enrolment increases.

Policymakers and corporations, too, are critical in driving the SDGs and contributing to professional growth, hence, it is imperative to encourage students to understand and act in favour of sustainable development and have a voice in sustainable governance. There is a need to develop a social and cultural environment where education becomes central to accomplishing meaningful progress towards SDG 4. The educational system should help individuals to comprehend the benefits of quality education for economic sustainability, allowing them to make educated decisions that lead to sustainable actions that create impact and drive transformation. People require capabilities to begin action, assume responsibilities in nurturing educational sustainability, engage, collaborate, and effectively communicate and empower others to act to contribute to developing a more sustainable socio-economic and environmental system. To ensure that individuals and society are able to develop such competencies, education should focus on the interrelated cognitive and affective elements of learning by supporting interpersonal skills that lead to sustainability awareness.

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Re-Imagining Higher Education Institutions as Inclusive Entrepreneurial Entities: the case of European University of Technology (EUt+)

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Abstract

The requirement to transform higher education institutions (HEIs) to become inclusive entrepreneurial entities is underpinned by policy and by changes over past decades on the role and linkages of universities to their environment. This paper aims to understand how HEIs are transforming as inclusive entrepreneurial entities using the European University of Technology (EUt+) as a case in practice. The study draws on a conceptual framework developed by O'Brien, Cooney and Blenker (2019) for expanding university entrepreneurial ecosystems to under-represented communities. The framework is used to identify points of decision and action as well as to identify tools and instruments that can capture data as EUt+ progresses. The contribution of this paper provides firstly, a preliminary insight into how EUt+ as a European University Alliance is progressing as an inclusive entrepreneurial HEI and secondly, progresses the O'Brien, Cooney and Blenker (2019) framework from conceptual to practice, in particular on monitoring and evaluation of the inclusive entrepreneurial HEI.

Keywords

higher education institutions, European University of Technology, inclusion, entrepreneurship, ecosystems

Re-Imagining Higher Education Institutions as Inclusive Entrepreneurial Entities: the case of European University of Technology (EUt+)

Introduction

For over a decade the European Commission has highlighted the need to build an innovative enterprise sector that is dynamic and is focused on sustainable development, that can provide more and better jobs especially among younger generations (European Commission, 2012, p. 21). The Sustainable Development Goals (SDGs), were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. Education, and in particular higher education, is an important driver to achieve ambitions set out in the SDGs. Incorporating creativity, innovation and entrepreneurship into education enhances individual capacities to turn ideas into actions, stimulates creativity and risk-taking, and the ability to plan and manage projects. Through adequate entrepreneurial education, EU member states aim to improve young people's entrepreneurial attitudes, increase employers skills, encourage the creation of innovative businesses, and increase the role of young generations and entrepreneurs in society and economy.

The SDGs stress the comprehensive nature of education for peace and sustainable development. Education has a decisive impact on changes in the way that societies are coping with national, regional, and global challenges embedded in SDGs (Fleaca, Fleaca and Maiduc, 2018). Entrepreneurial higher education institutions (HEIs) that strategically place the SDGs at their heart create value for all stakeholders by capturing social, environmental, and economic concerns. This implies that they are not only entrepreneurial but also inclusive. Nevertheless, a way by which universities can combine traditional teaching and research objectives with those of stimulating inclusive entrepreneurship among younger generations remains a considerable challenge.

From a policy perspective the European Commission has focussed attention on the need for more entrepreneurial HEIs for a number of years. The EntreComp framework developed in 2016 aims at creating a common language between different levels of education and training. It recognises the opportunity to be entrepreneurial in any situation: from school curriculum to innovating in the workplace, from community initiatives to applied learning at university. The EC encourages HEIs to systematically integrate principles of entrepreneurship within their curriculum, regardless of their discipline, and type of institution. In the EC's long term partnership with the OECD, tools such as

HEInnovate are developed as an entrepreneurial capacity building diagnostic. Funding streams have also been developed such as the EIT HEI Initiative for innovation capacity building. In an increasingly globalised world, it is recognised that it is important for staff and students to recognise and develop certain behaviours, skills and attitudes that are essential for surviving and succeeding in environments with high levels of uncertainty and unpredictability.

This paper aims to understand how HEIs are transforming as inclusive entrepreneurial entities using the European University of Technology (EUT+) as a case in practice and in progress. EUT+ is an alliance of eight European universities of technology. The study draws on a new conceptual framework developed by O'Brien, Cooney and Blenker (2019) for expanding university entrepreneurial ecosystems to under-represented communities. By collecting data on categories of 'consideration and decision areas' within the framework and 'entrepreneurial outcomes' the study explores the extent to which EUT+ is becoming an inclusive entrepreneurial entity in this early phase of its development. The paper also draws on the Framework to identify tools and instruments that can capture this data as EUT+ progresses, in particular for measurement at the end of its pilot period in October 2023 and beyond.

EUT+ was created as a European University Alliance in November 2020 with diversity, inclusion, technological and entrepreneurial ambitions pronounced in its strategic intent documents and within its Mission and its Values. At the core, EUT+ wants to become 'an entrepreneurial entity in itself from its inception, making it a key resource in the design and development of the organisation and its culture'. Simultaneously the Value Statements of EUT+ highlight that members act with a pioneering spirit and foster creativity. The EUT+ Vision is developed along principles of a human centred approach to technology where diversity is an opportunity, and an inclusive university will be developed where everyone feels welcome.

The contribution of this paper is twofold. Firstly to provide a preliminary insight into how EUT+ as a European University Alliance is progressing as an inclusive entrepreneurial entity; and secondly in applying the O'Brien, Cooney, Blenker (2019) conceptual framework in practice highlighting and exploring useful contexts for its application.

The next section provides a literature review on inclusive entrepreneurial higher education institutions including transformation and evaluation of HEIs. This is followed by detailing a methodology in terms of how the conceptual expanded entrepreneurial ecosystem framework is applied in practice. Findings and conclusions follow the methodology.

Literature Review

The inclusive entrepreneurial higher education institution

The literature on entrepreneurship in HEIs highlights evidence of a change in emphasis in entrepreneurship education in recent years (O'Brien and Cooney, 2016). There are different models for the transformation of the traditional university as described in the academic literature, such as Clark (1998, 2004), Etzkowitz (2003) and Etzkowitz, Webster, Gebhardt, and Terra (2000), Nelles and Vorley (2010a) and Rothaermel, Agung, and Jiang (2007). In general, these models emphasize the transformation from a hybrid, Humboldtian or traditional university model, based on teaching and research, to a more engaged and entrepreneurial university (Clark, 1998, 2004; Etzkowitz, 2013; Etzkowitz and Zhou, 2017; Tijssen, 2006). The study of entrepreneurial HEIs have adapted a number of approaches including those within the entrepreneurship literature such as Lumpkin and Dess' (1996) entrepreneurial orientation (Daz-Sota, Souza and Benner, 2021).

Entrepreneurship is an essential political priority and governments seek to employ entrepreneurship education as a means to stimulate higher levels of economic activity (O'Connor, 2013). With the increasing importance of HEIs in the regional innovation and governance system, entrepreneurship and enterprise development programs institutionalized within universities have had exceptional growth in recent years (Dill 1995; Morris et al. 2013; Sá 2011; Sam and Van Der Sijde 2014). Entrepreneurship centres are creating innovative curricula and experiential learning to train current and next-generation entrepreneurs. They also incubate new firms and nurture their growth through collaboration with governments, business communities, and different organizations (CFEE 2014).

Education can thus play a critical role in the development of enterprising graduates by identifying and encouraging aptitudes or by helping to promote entrepreneurial behaviours and intent (Ferreira and Trusko, 2018). The scope of entrepreneurship education is continuously broadening, from traditionally a business school topic, to now include other departments and faculties (Karlsson and Moberg, 2013). This is built on clear evidence showing that entrepreneurial education influences entrepreneurial intentions and entrepreneurial passion (Uddin et al. 2022; Penna-Alaya and Villeaus-Breuman, 2020). The entrepreneurship pathway helps address the unemployment challenge among university graduates by stimulating interest in developing entrepreneurial ventures as a viable career option. Indeed, it is argued that higher education more generally stimulates entrepreneurship instilling a range of competences among students to perform an employment, self-employment, or entrepreneurial duty enabling their personal growth (Chatterjia & Kiranb, 2017).

The positive impact universities may have on social and economic development is also acknowledged by the linkage of entrepreneurship, concretely involving inclusive entrepreneurship to ensure equity, sustainability and lifelong learning. Social entrepreneurship is emphasized as a key concept to engage business and civil society in addressing emerging social challenges and reducing inequalities and enhancing social cohesion (UN, 2016). The concepts of social entrepreneurship and sustainable development are crossing paths (Piccolitti, 2017). In the United Nations proposal to integrate entrepreneurship in the education curriculum (UN, 2014), universities around the world are encouraged to inform students about the demands of diverse communities (Rountree, 2015). Government support on this is also important for encouraging social entrepreneurship through supporting and facilitating entrepreneurship education and research and thereby supporting sustainable development (Bansal, Garg, Sharma, 2019).

In general educators have an increasingly positive attitude towards inclusive education (Guillemot, Lacroix and Nocus, 2022). HEIs are anchor institutions and intermediary enablers critical to fostering inclusive entrepreneurial ecosystems and equitable growth through entrepreneurship (Wang, 2021; O'Brien et al. 2019). Even accessing higher education, large informal entry barriers to tertiary education can exist even if formal barriers are low and this influences extremely large differences across social groups accessing higher education (Jackson, 2013). HEIs in this role as intermediary enablers can be facilitators of institutional reforms that together with powerful policy interventions can be aimed at fostering study progression of disadvantaged students (Contini and Salza, 2020).

Transforming towards an inclusive entrepreneurial ecosystem

The concept of an 'entrepreneurial ecosystem' in the academic literature usually refers to the dynamic and mutually reinforcing environment between a community of interdependent actors that supports entrepreneurship (Isenberg, 2011; Spigel, 2017). Universities are key stakeholders in such ecosystems as feeders to start up communities (Feld, 2022), and holders of interdisciplinary knowledge that can respond to the many challenges in contemporary society. Morris et al. (2017) suggested that universities operate at two levels in terms of entrepreneurial ecosystems, since they serve as one of the most valuable elements within regional ecosystems, while also operating their own internal ecosystems. A well-developed university wide entrepreneurial ecosystem can lead to the development of students with an entrepreneurial mindset and the creation of graduates with entrepreneurial intentions (Isenberg, 2010).

More inclusive models and approaches adopted by HEIs contribute to the development of students as critical and active participants in a democratic process. Cultural and diversity issues

can be highlighted, and collective responsibility is promoted (Keane, 2015). Inclusive models based on collegiality, learner-centred principles, and power sharing can ensure that students become important and active participants in a democratic process reflecting on their learning and accepting responsibility. There is an underlying assumption within entrepreneurial ecosystem frameworks that all entrepreneurs will have equal access to resources and support, but this may not always be true (Brush et al., 2018). The OECD recognises the Missing Entrepreneurs (OECD, 2021) as women, migrants, the unemployed, seniors, people with disabilities and young people. These groups are disadvantaged within entrepreneurial ecosystems because of barriers such as access to finance, social capital and networks, lack of mentoring and role models (e.g. Galloway and Cooney, 2012; Drakopoulou Dodd and Keles, 2014).

Individual educator initiatives are useful to support small cohorts of underrepresented groups to start a business. There is a need however to create inclusive entrepreneurial ecosystems to complement entrepreneurship education (Olutuase et al., 2018). Miller and Acs (2017) describe a strong ecosystem as involving alumni, partners in industry and commerce, joint research projects and incubators, all of which can offer opportunities to provide encouragement, the practice of ideas, and the development of an entrepreneurial mindset and increased entrepreneurial intentions. Entrepreneurial ecosystems can also help to provide social support, which has been found to positively influence entrepreneurial intentions for non-traditional groups (Farooq et al., 2018).

The capability of HEIs to act as entrepreneurial universities by combining their scope of responsibility (i.e., social, environmental, and economic) within the value chain (research and development, teaching and learning, knowledge exchange and technological transfer) through a practical and effective mechanisms are needed to align HEI strategy with envisaged sustainable development goals (SDGs) (Fleaca, Fleaca and Maiduc, 2018). This is not an easy transformation process however. There is a wide range of definitions and roles ascribed to entrepreneurs and entrepreneurship in HEIs, creating layers of opaqueness. The complexity of entrepreneurship is evident when considering the number of disciplines that have contributed and at times converged in attempts to explain it (Hart, 2003). Audretsch (2004, p. 167) claims that 'entrepreneurship does not correspond nicely with any established academic discipline...' and Pittaway (2005, p. 201) observes that 'the concept of the 'entrepreneur' and the function of entrepreneurship in society have ranged extensively within theories'.

Indeed, HEIs often run parallel strategies and agendas to encapsulate the importance of both inclusion and entrepreneurship. For example gender equality charters like Athena Swan are not

necessarily considerate of entrepreneurial dimensions. Similarly, traditional entrepreneurship language, education, tools and frameworks have been shown to favour men rather than women or Missing Entrepreneur groups (e.g. Ferreres-Garcia, Hernandez-Lara and Serradel López, 2021; Elliott, Maviplia, Anis, 2020). For entrepreneurship in STEM, scholars describe the 'triple gendered' situation – technology, technology studies and the gendered environment of academic incubation hubs that support start-up (Reyes and Noorgaard, 2023). Some models for transformation of HEIs towards a more entrepreneurial orientation are beginning to emerge in the literature. Gheorghiu et al. (2021) provide a case example of 'Ovidius' University and its entrepreneurial transformation strategy. They state the importance of an inclusive approach and a network perspective in their methodology. The extent to which they are capturing non-traditional communities is not so clear however as they draw on public tools and data sources such as the HEInnovate tool, EuroStat, and Global Entrepreneurship Monitor that are quite weak on capturing elements of access and diversity.

The Progression Model is currently espoused as an approach for how to introduce and develop entrepreneurial education as an enabling approach to the transition in higher education (Kluznik-Toro, 2021). This could serve as an integral part of a paradigm shift towards an entrepreneurial university. In their study Kluznik-Toro define the Progression Model as: 'a pedagogy-driven approach involving learning through the successive stages of a learning loop process comprising theorization, experience, action, and reflection. The pace of the process and its starting point is subject-specific and dependent on its main stakeholders—academics and students' (p7). Concurrently, studies at the interface of design and science consider entrepreneurial frameworks. One attempt by Romme and Rayman (2018) attempts to frame a methodology that systematically connects creative design and scientific validation in an interactive way that drives the continual renewal of the entrepreneurship field, unlocking potential of a body of knowledge that is both rigorous and relevant. However, combining design and validation is a continual administrative responsibility, requiring sustained attention and support by deans, group chairs, and research directors (Rousseau, 2012; Schön, 1987; Simon, 1967) as well as by external stakeholders. These studies are encouraging of where universities are trying to progress, but they also recognise the problems in terms of management commitment, fragmentation, resourcing, roles and responsibilities.

Drawing on the progression model approach, O'Brien, Cooney and Blenker (2019) through an extensive literature review have conceptualised a framework that expands to encapsulate underrepresented communities into university entrepreneurial ecosystems (Figure 1). Six key considerations are derived where decisions can be organised – 1. teaching and learning, 2.

multidisciplinary approaches, 3. culture, 4. resources, 5. stakeholders and 6. Infrastructure. These are areas where actors in a university ecosystem need to consider and decide upon.

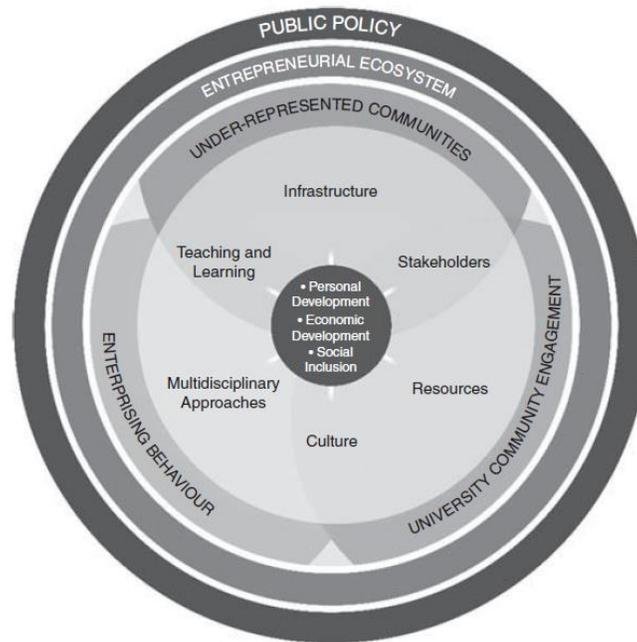


Figure 1. Framework for expanding university entrepreneurial ecosystems to underrepresented communities

Applying the framework proposes outcomes at three distinct levels: personal development (individual learning), social inclusion (collective agency) and economic development (structural development). The personal development refers to the classical ambition of universities to educate individuals. The focus on under-represented communities directs attention to groups of learners that hitherto have not received sufficient attention from universities. Social inclusion represents the ambition to stimulate under-represented communities into entrepreneurial activities. This is realised through collective actions by the agents of the ecosystem. Within a longer time horizon, the combination of learning and inclusion of under-represented groups should support economic development amongst under-represented groups. The combination of these three outcomes is unique to under-represented communities as the authors suggest that other university-led activities are usually concerned with just one (possibly two) of these outcomes.

Evaluating the HEI entrepreneurial ecosystem

There is little evidence for how models and frameworks are applied in terms of what tools and instruments are appropriate to monitor and evaluate progress of an inclusive entrepreneurial

ecosystem. Georgiou's study for example appears to rely on indices and statistical data although it is well recognised that such public data sources such as EuroStat are not good on supporting gender and diversity. Indeed because of this lack of data, the European Innovation Council put out a call in 2022 to fund a new Innovation Gender and Diversity Index that can better inform and improve stakeholder supports and initiatives.

Other studies such as Fuller and Pickernell (2018) identify groups of entrepreneurial activities that allow university activities to be identified within distinct groups. Ranking systems can be identified from this and it also allows better understanding of how universities are engaging in commercial activities in certain areas.

The EC's HEInnovate Tool is integrated into some research designs for example to understand correlations between different pillars of the Tool (e.g. Badulescu, Perticas, Hatos, Csintalan, 2018). In this Badulescu et al. study the analysis reveals a very strong correlation between the pillars 'Leadership and Governance' and 'Organisational Capacity: Funding, People and Incentives', and between 'Knowledge Exchange and Collaboration' and 'The Internationalised Institution', respectively. The authors however adopt a cautionary approach to such a methodology highlighting further investigation needed on differences relative to national and EC statistics.

Results from more traditional survey instruments and qualitative tools also shed light on entrepreneurial ecosystems. A study of 1277 HEI students in Finland suggests that formal institutional support has a greater impact on students' perceptions of entrepreneurship culture than student driven activities. Furthermore, the results highlight that the encouragement of teachers has a greater influence on students' perceptions of entrepreneurial culture than peer students and student-driven activities (Lahikainen, Peltonen, Oikkonen, Pihkala, 2021).

Such studies can help to direct and improve ecosystem activities and initiatives to be more affective. By drawing on the expanded entrepreneurial ecosystem framework evaluation and analytical tools and instruments can be organised to emphasize key decision and outcome areas.

Methodology

Context and Setting

This study explores how the European University of Technology (EUt+) is developing into an inclusive entrepreneurial ecosystem drawing on the O'Brien, Cooney, Blenker (2019) framework. EUt+ is a European University Initiative involving eight technology universities across Europe located in Ireland, Germany, France, Spain, Latvia, Bulgaria, Romania and Cyprus. It was created in October 2020 with three year funding from the European Commission to develop an alliance

during 3 year pilot phase. Over the next years EUt+ plans to move to a more federative structure, progressing in the longer term to a confederate structure involving a single European University of Technology with eight campuses across Europe.

EUt+ has stated in its origin documents the desire to be an 'entrepreneurial entity from the outset'. It's ambition is set out to deepen the connections of EUt+ with its ecosystems and link its diverse territories for inter- and intra-regional knowledge exchange and collaboration with stakeholders, including industry, government, civic and community organisations. Adopting the EntreComp definition of entrepreneurship, EUt+ promotes an entrepreneurial culture and mindset in its students and staff and in its stakeholder organisations throughout its regions. The EntreComp definition is adopted to ensure EUt+ is more accessible, innovative, responsive and agile in its dealings not just with industry and businesses but with civic and community stakeholders also. Diversity and inclusiveness are at the core of EUt+ and reflected across the EUt+ Vision, Mission Statement and Values.

EUt+ Vision:

'We Think Human First, we are the European University of Technology. We empower our complementarities within a single home institution. We enable all people and places to fulfil their potential in campuses throughout Europe. We create futures.'

EUt+ values: Think Human First

'Technology is first and foremost human'

'Diversity is opportunity'

'An inclusive university'

EUt+ Mission:

'Europe requires top quality education for diverse groups.'

'Everybody, regardless of background, should be able to study and succeed in our university.'

'We are driven by the diverse needs of our regions, aware of the global challenges of our times and capable of having a true impact on people's lives.'

These strategic statements within the establishment documents of EUt+ demonstrate an impression of EUt+'s role within the European ecosystem and are desire towards an inclusive entrepreneurial entity.

Research design

Adapting the O'Brien, Cooney, Blenker (2019) framework the research design will involve the collection and analysis of evidence against the six consideration and decision areas identified in the framework comprising 1. Teaching and learning; 2. Multidisciplinary approaches; 3. Culture; 4. Resources; 5. Stakeholders; and 6. Infrastructure. These are described in Table 1.

Table 1: Six consideration and decision areas for inclusive entrepreneurial HEIs

Teaching and learning	Programmes should be contextualised towards local community needs, with a focus on personal development and growth through active, experiential pedagogy or andragogy.
Multidisciplinary approaches	Universities can utilise the strengths and expertise across disciplines and support offices (e.g. Technology Transfer Office, Alumni) to generate unique offerings for communities.
Culture	Insight into the core values, mission, attributes, objectives and culture of a university that might engage with under-represented communities in entrepreneurship.
Resources	invest in both organisational and governance structures that support third mission and enterprise activities. Supportive university leadership and management is critical.
Stakeholders	supporting under-represented communities in developing enterprising behaviour requires a multi-stakeholder approach involving local business, government supports, community groups, civil society organisations and universities.
Infrastructure	infrastructure, including: the physical campus, technological or digital environment, individual or social networks.

Source: adapted from O'Brien, Cooney, Blenker (2019)

Feedback and analysis on the Entrepreneurial outcomes dimensions of the frameworks can be collected 1. Individually for personal development outcomes; 2. From community organisations and stakeholder interest groups for social inclusion outcomes; and 3. Statistically from institutional and public data sources for structural and economic development outcomes. Sources of data collection for both consideration and decision areas and entrepreneurial outcomes are listed in Table 2.

Table 2: Sources of data collection across EUt+ entity

Consideration and decision areas	Input evidence collecting	Entrepreneurial outcomes	Outcome evidence collecting
1. Teaching and learning	Course mapping. Case studies.	1. Personal development (individual learning)	Participant feedback sheets. Periodic follow-ups.
2. Multidisciplinary approaches	Course design and promotion.		
3. Culture	Strategic intent statements.		

4. Resources	Physical, human, intellectual, and financial	3. Economic development (structural development)	Public reporting and statistics. New start-ups. Successful EC funding for EUt+ initiatives.
5. Stakeholders	Internal and external network mapping.		
6. Infrastructure	UD audits. Accessible technology guidelines, promotion and staff training. EUt+ deliverable development observations.		

Data collection

The EUt+ Initiative is currently two years through a three year pilot funding period. Much of the first part of this involved knowledge sharing and laying the groundwork for initiatives and evidence gathering. Covid-19 delayed the work. As an Erasmus+ project structure EUt+ has a series of Deliverables that are reported to the European Commission that underpin progress. On innovation capacity building that emphasizes entrepreneurship, the Inno-EUt+ project launched in July 2021 and runs for two years until June 2023. Much of the data and evidence collected to date connects to this work. Another parallel funding that EUt+ partners are involved in is GREENWORAL, an Erasmus+ funding to support green rural female entrepreneurs although work on this project only started in late 2022.

Course mapping:

A mapping of entrepreneurial curricula across the alliance was completed in December 2021 by Inno-EUt+ partner Water Alliance. This gives overview of programmes across partners per stage of entrepreneurship stimulation from inspiration & education to incubation to acceleration to growth. The Inclusive Entrepreneurship Handbook also collected case studies of inclusive course design and Missing Entrepreneurship courses across partners. This handbook was completed in January 2022.

Course design and promotion:

The Climate Entrepreneurship Programme (CEP) underpinned by ClimateLaunchpad is designed for multidisciplinary use. It has been rolled out across partners at PhD, PG, UG levels. Almost 1000 students completed this programme across EUt+ in 2022. The programme is designed for very flexible delivery in person, online, hybrid, block delivery or semester, curricular/co-curricular/extra-curricular. Feedback is collected.

An inclusive entrepreneurship educator network is developed across the alliance with masterclasses and training underpinned by universal design for learning approach. Quarterly lunchtime showcases are held where all are invited to share experiences and to attend. Feedback is collected.

Strategic intent statements:

These are documented above and will remain in place for next round of EUt+ funding in continuation of these ambitions.

Physical, human, intellectual, and financial:

So far most of the human and financial resource dedicated to inclusive entrepreneurial HEI is provided under Inno-EUt+ funding for student and staff development initiatives, in particular climate enterprise. Physical spaces have been utilised such as the Bootcamp in Romania, the Demo Days in Limassol and the Showcase days in Riga and Cartagena where students came together across the alliance to collectively work together and share knowledge. Partners worked with local agencies and infrastructure to support these days.

Internal and external network mapping:

Particular linking in with communities to support underrepresented groups has been minimal to date although some of this does happen at an institutional level. The inclusive entrepreneur educator handbook did have support and input from internal experts on accessible documents and accessible technologies as well as focus on Missing Entrepreneurs.

UD audits. Accessible technology guidelines, promotion and staff training:

Guidelines and checklists for accessible documents and UDL have been shared together high level awareness raising and some training. No in-depth audits or CPD training to date.

Participant feedback sheets. Periodic follow ups:

Participant feedback was collected from inclusive entrepreneurship educator training and also from CEP students. Participant feedback was also collected and analysed in a conference paper relating to a pilot programme for monthly UDL / inclusion seminars across partners. PhD projects in development are likely to encompass periodic follow ups.

Stakeholder references:

These have not been collected to date.

Public reporting and statistics:

EUt+ had its midterm review in April 2021 with some reporting. Inno-EUt+ completed annual reporting in 2021, 2022. Little evidence of economic development other than new start-ups and start up feedback.

EUt+ deliverable development observations and statistics:

There are 39 deliverables in total in the EUt+ Initiative. WP2 has the main responsibility for inclusiveness and embeddedness, notwithstanding that this work is transversal and should influence all work of EUt+ as it develops.

Findings

Within the EUt+ initiative educational work such as hosting monthly seminars on universal design and inclusive education and research more broadly has started across EUt+ partners in collaboration and communication with each other. Similarly European research centres have been developed on sustainability, and importantly the European Culture and Technology Laboratory 'ECT Lab+' launched in 2020 as a pillar of the EUt+ vision to 'Think Human First'. Within this concern about a human centred approach to technology where diversity is an opportunity and an inclusive institution is emerging. There are interesting observations that are emerging from this positioning. For example, McQuillan *et al.*(2021) describe how in the progress of work designing an XR VR approach to supporting academic mobilities, multiculturalism and multi/plurilingualism the project team show how the understanding of 'inclusiveness' is constructed through social interactions in their EdTech project and finally reaches a phase where a consensus emerges for the project team and that is thinking about humans interacting through technology.

In professional services work such as international offices inclusion is also recognised as important and mobility friendly has concepts of multiculturalism and multi-plurilingualism at the

fore also actions on self assessing and planning for more inclusive mobilities. Evidence and implementation of plans is in very early stages however with little evidence or data gathered on diversity. Mainly it is laying groundwork and supports for more inclusive activity.

Within the entrepreneurial initiatives diversity in language and culture are natural aspects of inclusion for a European alliance. Efforts are made through multilingual materials and networks to be more inclusive. Experiences are shared to encourage more inclusive entrepreneurship behaviours and activities within the ecosystem. Table 3 illustrates the beginning of a framing for how an inclusive entrepreneurial HEI can emerge for EUt+ drawing on insights emerging in the literature.

Table 3: Evidence of EUt+ becoming an inclusive entrepreneurial entity

Consideration, decision areas and outcomes	Evidence	Reflections
Teaching and learning	<ul style="list-style-type: none"> - Multilingual educator handbook (7 languages), masterclasses and EUt+ educator network on inclusive entrepreneurship course design provides supports for local language working groups and strategies. 60 members of inclusive educator network. - Missing entrepreneur case studies and quarterly seminars provide exemplars and experience sharing for EUt+. - UDL training and development ensuring it is embedded into new programmes (2 EUt+ examples of new programmes through BSc Sustainable Development and GREENWORAL rural women programme) - UDL CPD programme piloting in semester 1 2023. 	<p>Good progress on educator supports, training and awareness. Also active efforts at knowledge sharing and embedding ideals into new programme development. More comprehensive training on UDL needed. Quarterly seminars will monitor evidence of improvement over time.</p>
Multidisciplinary approaches	<ul style="list-style-type: none"> - Inno-EUt+ emphasises CEP programme in climate start up across disciplines, levels and delivery formats. Almost 1000 students trained in 2022. - Physical events of Inno-EUt+ involved multidisciplinary teams. 	<p>This is well recognised and clear evidence emerging from new programme development and entrepreneurial initiatives. More efforts on inclusion could be embedded.</p>

	<ul style="list-style-type: none"> - BSc Sustainable Development is multidisciplinary and includes entrepreneurship component. 	
Culture	<ul style="list-style-type: none"> - Documentary evidence from Mission, Vision, Values statements. Continuous reaffirming of these across deliverables and review documents. - Continuation of same mission for next round of EUt+ funding. Also new WP dedicated to entrepreneurship and innovation as well as societal transformation and inclusion. Embedding of plans, training and UDL approaches in the deliverables. 	<p>The interest of EUt+ to become an inclusive entrepreneurial entity is unambiguous from the mission statements. Also in continuation of that mission and structuring next funding application. Work emerges from the ground up however hopefully from intersectional equity plans and shared manifestos such as women in tech, etc.</p>
Resources	<ul style="list-style-type: none"> - Funding from Inno-EUt+ and GREENWORAL that covers direct personnel cost. - Resourcing of WP2 through EUt+ funds and Elara Lab through other funds for pedagogy development. - Global Villages initiative is the beginning of sharing innovation and entrepreneurship space and facilities at EUt+ level. Pledge signed. - Accessible technology resources and guidelines shared. 	<p>Specific funding calls have been helpful, particularly Inno-EUt+ and now GREENWORAL. Also resourcing of WPs in the EUt+ calls of specific direct personnel at project management level. Resourcing however for real wide scale action is needed across partners that will hopefully emerge through intersectional equity plans and European funding initiatives. As well as prioritisation of EUt+ and its Mission.</p>
Stakeholders	<ul style="list-style-type: none"> - Some internal stakeholder engagement connected to inputs on inclusive entrepreneurship handbook. Also entrepreneurship educators and professional staff. 	<p>Community engagement is not strong across all partners. Also internal offices to support access and inclusion. All partners do have some cases of supporting Missing Entrepreneurs however but at different levels.</p>

Infrastructure	<ul style="list-style-type: none"> - Deliverables on industry civic engagement - Deliverables on inclusion, gender and equality - Pilots and documented plans in implementation on inclusion – including template indicators. - Accessible technologies such as INDIE4ALL and Accessibility THRIVES. 	<p>EUt+ is a virtual entity without a legal structure. Deliverables such as good practice reviews and documented plans are the groundwork for further development of EUt+ together to technological supports. The dedication of the innovation and entrepreneurship WP in next call provides a structure for inclusion and social entrepreneurship and behaviours.</p>
Personal development	<ul style="list-style-type: none"> - Student feedback collected. - Staff feedback collected 	<p>Student feedback has not emphasised aspects of social enterprise or inclusion. Staff feedback generally positive in terms of learning and intention to act.</p>
Social inclusion	<ul style="list-style-type: none"> - Little evidence collected to date. - EUTWISE ecosystem development application. 	<p>EUTWISE not successful which would have embedded EUt+ into social enterprise networks across Europe. Data collection on inclusion from pilots and other initiatives not very active yet.</p>
Economic development	<ul style="list-style-type: none"> - HEInnovate Tool applied in minimal form May 2021 and more comprehensively early 2022 for progress. - New startups from work. 	<p>Some new start ups emerging from Inno-EUt+ including useful mentoring. Successful funding applications will be good economic development indicator</p>

Overall, there is evidence across EUt+ since its recent inception of the recognition of inclusiveness as a value and cornerstone of how EUt+ differs from other European University initiatives. There is also evidence of its entrepreneurial spirit and how inclusiveness is a part of this.

Concluding Remarks

Transforming universities and other HE institutions into inclusive entrepreneurial ecosystems is full of challenges and complexities, not least because of the immaturity of models, frameworks and approaches. Fragmented entrepreneurial initiatives across university ecosystems may of course be highly successful and there are many studies of individual teaching or other initiatives that embed inclusion and supports to improve access and participation (e.g. Kauppinen and Chaudhary, 2021; Marselli, Costa and Margiotta, 2014). EUt+ can already report on a number of such initiatives linked into Inno-EUt+ funding and other pilots. Scholars have more recently attempted to group entrepreneurial activity, to adopt institutional frameworks and models and to research the ecosystem more generally providing more material for HEIs to consider. Notwithstanding, the challenges of many transformation initiatives such as management and staff commitment, adequate investment and resourcing are highlighted in the studies. In the end however, European universities have an imperative to align themselves to the SDGs and support EU ambitions for HEIs to systematically integrate principles of entrepreneurship within their curriculum, regardless of their discipline, and type of institution. EUt+ is no different.

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Rethinking Higher Education Models: Towards a New Education Paradigm for the UN 2030 Agenda for Sustainable Development

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Abstract

The United Nations 2030 Agenda unfolded a comprehensive package of Sustainable Development Goals that seek global cooperation, participation, and coordinated efforts to 2030 for the betterment of humanity within the ecological constraints of the planet. However, it has become evident that the agenda is very ambitious and afflicted by a lack of solid governance principles vital to ensuring the successful achievement of the goals and targets. This paper offers critical insights into the pivotal role of higher education in promoting and implementing the goals. We argue that there is a need to raise awareness of the goals and educate relevant stakeholders on how to coordinate their efforts to respond to the complexities associated with achieving sustainability. We find that higher education institutions are poised to play a more relevant and influential role, but to do so, they need to engage in a bold educational transformation process. Given that the achievement of the goals is predicated on collaboration between multiple actors, ranging from governments, businesses, non-governmental organisations, civil society, researchers, academics, and students, specific actions within higher education must focus on the circularity of the education model. Moreover, stakeholders need to work together to address the numerous failures associated with governance if they seek to achieve meaningful change and progress around sustainability issues. Therefore, we argue that HEIs need to rethink and reconsider their educational models to update their leadership role in achieving the 2030 Agenda and beyond.

Keywords: sustainability, governance, HEIs, SDGs, students, educational models, action, and impact.

Rethinking Higher Education Models: Towards a New Education Paradigm for the UN 2030 Agenda for Sustainable Development

Introduction

Based on principles of equity, security, prudence, interconnectivity and comprehensiveness, the United Nations (UN) 2030 Agenda for Sustainable Development charters a societal transformation (Sachs et al., 2019), giving priority to socio-ecological systems. Hence, sustainable development is emerging as a paradigm for human advancement based on social justice and economic vibrancy within environmental limits, with education as an agent for transformation. Access to quality education is identified as one of the Sustainable Development Goals (SDGs) that can enable the achievement of others (Vladimirovaa and Le Blanc, 2015). SDG 4 is premised on educational purposes being realised. In the emerging socio-ecological paradigm, these purposes extend from an economic focus to a broader lens incorporating environmental stewardship and global citizenship (Kioupi and Voulvoulis, 2019). SDG 4.7 mandates higher education institutions to play an essential role in preparing graduates for sustainability leadership through active engagement with the challenges set out by the SDG framework (Behan et al., 2022).

In line with the UNESCO (2021) report, we need to reimagine our futures, where we work together to define a new social contract for education that seeks to rebuild relationships between people and the planet. Our research position in this paper clearly aligns with the UNESCO vision. We argue that a new educational paradigm is needed to help us accelerate change and become advocates and active actors for sustainable development. This reflective paper contributes to the debate by taking a constructively critical perspective on the role of education in meeting the UN 2030 agenda. In addition, we seek to better understand the progress made (and, in some cases, undone) and identify potential challenges higher education institutions (HEIs) face as they navigate the integration of sustainability issues with their educational portfolios. We argue that existing educational models limit students' roles in their educational and geographical context as HEIs do not seem to be exploring the educational impact beyond the institutions' walls. Students are not perceived as active agents of change. Consequently, the educational system fails to equip them with the required skills to confront the current and future challenges of unsustainable economic models and their dependency on existing business models and practices. Therefore,

we argue that a new commitment towards education is needed. Yet, a new vision is not sufficient; it needs to be followed by specific transformations that lead towards educational models that take a "*human centre*" and "*human first*" approach.

The following sections explore the origins of sustainability and the importance of education for sustainability (ESD) as we delve into global economic challenges grounded on an obsolete economic model that requires replacement. The discussions progress with insights into businesses and economic activities and their contribution to sustainability. We offer some reflections to help us rethink and reflect on existing HEIs educational models and the need for new paradigms that enable us to become agents that drive sustainable development. We finally conclude our critical discussion.

The Origins of Sustainable Development

As humanity becomes more aware of Earth's limitations, it faces an ever-delicate balancing act of synergies and trade-offs between its social, economic, and ecological systems (Raworth, 2012). This is reflected in the novel concept of the Anthropocene, an era depicted as one in which affluence, population growth, and technological progress have yielded an extraordinary human capacity to alter global ecosystems. As unchecked socio-economic activity and earth system indicators inflected into exponential growth (Steffen et al., 2015), several seminal profile reports warned of their negative environmental impacts (Meadows et al., 1972). The concept of sustainable development (SD) gained traction following the 1987 Brundtland Report and was consolidated at the 1992 UN Conference on Environment and Development (UNCED), also known as the Earth Summit, which took place in Rio de Janeiro. The Summit can be considered the first international effort towards a more sustainable development pattern. Whilst various candidate definitions of SD exist, its depiction as development that "*meets present needs without compromising the ability of future generations to meet their own needs*" has since become widely accepted, implicit in which intergenerational inequality wields an existential threat (Brundtland, 1987, 292). Yet, as a concept, SD is still difficult to articulate, and its knowledge continues to evolve rapidly in different directions (Kuhlman and Farrington, 2010).

A sensible approach to SD relates to its measurement through compound indices that comprise an array of goals and indicators. In June 2000, the UN endorsed work done on the international development goals (IDGs). More specifically, the then-UN secretary-general, Kofi Annan, enjoyed high levels of influence as his work was framed around moral leadership and, thus, credibility.

Therefore, the secretary-general was pivotal in reframing the world's debate around partnership and the need for a new approach and working agenda. A spirit of collaboration and partnership led to the rise of the Millennium Development Goals (MDGs), which became the central point of reference for the world's ambitions for development and cooperation. However, attention seemed to be biased towards offering a response to issues related to economic development and the failures of existing macroeconomic models. The socio-economic effects of multiple and consecutive crises led to significant damaging effects that left millions of people out of the socio-economic system. The world's less developed economies have been disproportionately affected. In parallel, most advanced economies' economic models and social fundamentals have been shaken due to growing levels of economic imbalances and inequalities that have resulted in increasing social unrest and conflict (Piketty, 2020; McArthur, 2014).

The Millennium Declaration non-quantitative Target 9, which is to *"integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources"*, sought to address the depletion of natural resources whilst ignoring socio-economic and political dimensions. In parallel, challenges associated with the development of leadership congruent with promoting, nurturing, and advocating for sustainability principles in a holistic manner, have emerged, leading to a critique of existing business models and their environmental impacts. Consequently, there is a collective but unnecessary perception of Hobson's choice, namely that the world economies face a dilemma in prioritising economic growth or looking after the health of our planet.

In the case of the Millennium Development Goals (MDGs), 8 goals and 21 targets sought to lift the world's poorest countries out of poverty. Subsequently, the more ambitious SDGs identified 17 goals and 169 targets that apply to all countries. The SDGs represent a call to safeguard our planet and deliver security by agreeing to limit natural resource consumption whilst placing poverty elimination at the core of economic development (Lemarchand et al., 2022). Whilst not legally binding, governments are expected to highlight progress in voluntary national reviews (VNRs). Sachs et al. (2019) suggest six societal transformations to achieve the SDGs, the first of which is education, which is considered an enabler for economic growth, poverty reduction, decent employment, and gender equality.

Following the political commitment to Sustainable Development during the Earth Summit in 1992, Education for Sustainable Development (ESD) emerged as a critical area of concern within Higher Education Institutions (HEIs). ESD came onto the global Agenda in October 1990, when the former Tufts President, Jean Mayer, convened the presidents, rectors and chancellors of international

universities to discuss environmental sustainability issues at the European Center in Talloires. Discussions focused on the responsibilities of universities to teach students about environmental sustainability led to the Talloires Declaration (TD), the first official statement made by universities acknowledging their commitment to sustainability (Tufts European Center, 2020).

The TD acknowledged several ecological crises facing humanity and issued a call for action to the world's universities by prescribing ten basic steps for developing sustainability literacy. The importance of these steps reflected a need to integrate sustainability into mainstream pedagogical and operational activities. Accordingly, the TD states articulated an urgent need for action, challenging university leaders to proactively embrace their responsibilities. It called on HEIs to mobilise their resources to pursue strategies to address sustainability challenges and, more importantly, to organise and equip HEIs on how to respond to them. Since then, the number of signatories to the TD has grown continuously, with 520 total signatory institutions from over 50 participant countries as of September 2021 (ULSF, 2022; Steward, 2010).

The Declaration and subsequent summits compelled HEIs to respond to the pivotal sustainability endeavours. As such, the TD is a significant declaration of HEI commitment to "*sustainability initiatives*" (Adlong, 2013; Wright, 2010; Davidson, 2010; De Angelis, 2009). Due to the menace of climate change and the ongoing deterioration of our environment, there is a need to reflect critically and rethink HEI educational models. In particular, there is a need to re-examine their continued legitimacy in an evolving ESD agenda, 30 years after the TD. Undoubtedly, HEIs face challenges as they try to articulate how to best integrate sustainability in the context of action that drives global, regional, national, and local transformation. Furthermore, the TD was formulated more than 30 years ago, and the complexities surrounding sustainability have increased and are now broadly captured by the 2015 UN SDGs. ESD is the product of more than three decades of work with many actors involved in an array of processes, international conferences, summits and meetings within the OECD and the UN.

However, there is no clarity regarding how educational models need to adjust nor to which extent they are challenging existing practices to realign with unfolding sustainability challenges. Indeed, ESD has been criticised for lacking clear objectives apart from the obvious, i.e., it seeks to develop the competencies required to pursue a sustainable future (Leal Filho et al., 2015). Whilst the early attentions of ESD were focused on a separate provision, they have since been redirected towards integrating sustainability in curricula so students can contextualise it to their respective disciplines. Yet, there is a lack of studies mapping this integration (Weiss and Barth, 2019). Now that ESD has been made an explicit target (SDG 4.7), its priority in higher education has been elevated

(Longhurst et al., 2021). On the one hand, SDG 4 is a goal in itself, and on the other, it is also a mechanism for a societal transformation to achieve other SDGs. This dual purpose necessitates a new education model that integrates the SDGs in learning (Rieckmann, 2017). In the next section, we offer further reflections on the importance of education to promote sustainability.

Educating for Sustainability (ESD)

The history of ESD is well-documented, from the Stockholm Conference (1972), which gave rise to the establishment of the UN Environment Programme (UNEP), to the intergovernmental environmental education conferences in Belgrade (1975), Tbilisi (1978) and Moscow (1987), which promoted the notion that environmental education could contribute to sustainable development. By the late 1980's, UNESCO had become quite proactive in integrating environmental education into a broad ESD paradigm (Wu, 2015). The evolution of ESD in higher education also reveals a shift from an exclusively environmental focus to a broader paradigm (Sherren, 2008).

In many respects, the Talloires Declaration (TD) was a success for its time (Adlong, 2013). Still, it largely failed in terms of visibility of the social conditioning and its action purpose, particularly concerning the environmental literacy needed to drive change and materialise actions focused on environmental protection and regeneration. The TD remains unknown in many HEIs around the world, and holistic actions still lag behind. As a result, it has not resulted in sufficient action and progress, as significant resources and commitment have not accompanied it (Lozano et al., 2014). Furthermore, a greater level of urgency needs to be articulated if we wish to achieve meaningful progress. Consequently, there is a need to rethink urgent environmental requirements in a broader context as an integrating element (not separate) to our socio-economic, political, and spiritual worldviews. In addition, the concept of ESD must be revisited to acknowledge the need for an approach that is flexible and dynamic so that it benefits from being updated as time passes. As such, a more comprehensive view that embraces complexity, futures thinking and an action orientation, is needed (Gute, 2020; Adlong 2013). Moreover, a critical issue has emerged with respect to the required mechanisms that will help articulate the need for action from a global and social context that should not be limited only to HEIs students.

Due to the awakening calls for sustainability and the challenges posed by global economic and political dynamics, HEIs were forced to reflect deeply on the need for a transformative shift in their traditional teaching, learning, and research approaches. This transformation became the focus of

UN Decade of Education for Sustainable Development (DESD) in 2005 (Beynaghi, Maknoon, Waas, et al., 2010). The UN DESD provided an opportunity for HEIs worldwide to address sustainability at local, national, regional, and global levels, representing some of the first tentative steps for educational change (Corcoran, Chacko Koshy, 2010). Fast forward to 2015, the 2030 Agenda calls for a radical shift in adopting policies that address broad challenges associated with sustainable development (UNESCO, 2021; UN, 2015; UNITAR, 2016). The agenda stresses the importance of quality education (SDG 4), which emerges as a critical pillar of the United Nations' aspirations and demands a new educational paradigm. We aspire to build a scholarly, knowledgeable society and economy that advocates for knowledge dissemination and accessibility to reduce inequalities between the world's most advanced economies and those in the process of developing. Undoubtedly, the SDGs offer significant inspiration and have contributed to reminding us of the challenges our global society is facing.

However, the UN SDGs have been subject to criticism. In essence, they are perceived as too ambitious and having no priorities. For example, Hickel (2015), the Economist (2015), the Gates Foundation (2018), and the World Economic Forum (2015) pointed out the wide-ranging and too cumbersome goals that are packaged into sound bites that do not address anything. Furthermore, problems associated with governance challenges crucial to their implementation have been flagged. The lack of commitment from our political leaders and the neglect of societal needs, as political and economic agendas are prioritised, translate into a lack of commitment, in a global context, to the UN 2030 Agenda. The 17 goals have 169 targets and too many indicators with little content. Pope Francis laid down challenges to world leaders, asking them to respond to those living in poverty and facing injustice. The SDGs seem to be a *"bureaucratic exercise of drawing up long lists of good proposals"* that are considered too many, have little content, and are unattainable (Vatican, 2015). Overall, the SDGs seem to be surrounded by an ideal vision of the world with few guidelines on how to accomplish and unify them. Moreover, some criticise the SDGs for being far too broad and aspirational for learning purposes (Janoušková et al., 2018).

Some consider the SDGs to be unfeasible or expensive to achieve. They are viewed as a patchwork, as lobby groups pitch for their particular interests at the expense of a collective vision (The Economist, 2015). As a result, critical voices argue that the goals can be considered a missed opportunity and that, as mentioned by Bill and Melinda Gates as early as 2017, *"We are on a course to miss 2030 development goals for health and poverty,"* a reflection that can be extrapolated to the other goals. Hickel (2015) further suggests that they are dangerous because they seem to be developed around a failing economic model of significant contradictions.

Therefore, it is vital to enable individuals and communities to understand the challenges ahead and educate them to become active drivers of change. More importantly, education should aim to provide the skills for activism based on a deep understanding of human activity and its negative impact on the environment and society. As we have already argued, a comprehensive and holistic approach is necessary to ensure progress. The indissoluble and interrelated nature of the seventeen SDGs demands it.

Therefore, it is not enough to limit ourselves to the discussion on the role of education; we need to move further and start taking action to make a significant contribution towards sustainability, translating learning into action. Our conversations, meetings, debates, conferences, and thoughts are not enough; we need specific transformations in higher education that drive change. To help us understand the importance of sustainability, our conversations need to evolve towards a meaningful debate on the value of quality education, which ensures inclusive and equitable lifelong learning opportunities for all in a context that seeks to drive actions for impact (UNESCO, 2021; Martínez and Vilalta, 2021; United Nations, 2019). In the words of Irina Bokova, former director-general of UNESCO,

"Societies everywhere are undergoing deep transformation, and this calls for new forms of education to foster the competencies that societies and economies need, today and tomorrow. This means moving beyond literacy and numeracy, to focus on learning environments and on new approaches to learning for greater justice, social equity, and global solidarity" (Bokova, 2015, p.3).

In addition, the current Director-General of UNESCO, Audrey Azoulay, reflects on the impact of the global health crisis and how it has shown us that education is fragile. At the peak of the COVID-19 pandemic, over 1.6 billion learners were impacted by imposed lockdown measures to prevent the spread of the novel coronavirus, which translated into school closures worldwide. But we cannot forget the power of education to help us develop more equitable societies. At the same time, we need to design, shape, and contribute to transforming our societies, organisations, cultures, communities, and institutions to enable a better future for all (UNESCO, 2021).

As a result, a broader and inclusive approach towards education for sustainability guided by the vision of a new social contract for education can help us further question the UN's very ambitious agenda and its potential success. For instance, we can reflect on how the TD has not managed to make significant progress, how its remit is limited to the context of environmental sustainability, and how it does not integrate the importance of personal, interpersonal, or cultural dimensions of change (Adlong, 2013; Robottom, 1984). We need to reflect further to the extent that a clear action

plan is articulated on how HEIs should integrate a vision for a new social contract for education. With unprecedented global challenges, we must aim, within our education models, to support the development of relationships, protect the planet and engage with technology. We must identify tools that help us respond to the severe doubts emerging regarding the ambitious nature of the agenda proposed by the UN SDGs. It is vital that we acknowledge that environmental problems are not limited to technical aspects, and that we explore implications derived from human nature, cultural issues, ethical considerations, economic and political values. Each one of us is part of a local, national, regional, and global society. So, we must recognise the significance of political and social sciences in helping us make a meaningful contribution to addressing the challenges associated with environmental crises. The International Strategy for Action in the Field of Environmental Education and Training in the 1990s (UNESCO-UNEP, 1988, p. 6, para. 14) states: *"...it falls to EE [environmental education] to supply ... the means of perceiving and understanding the various biological, physical, social, economic and cultural factors which interact in time and space to shape the environment"*. Hence, we need to go beyond limiting education to the environmental context and engage in efforts to develop quality and inclusive education models that establish appropriate systems for drawing out the common good and for nurturing the best of everyone to create sustainable economic models.

Economic and Business Activities for Sustainability

Scientific evidence demonstrating that human activity is causing significant damage to our planet is undeniable. Economic activities have materialised in negative externalities with adverse spillover effects on society and the environment, endangering the prospects for sustainable economic development. To understand our role in harming the environment, we must consider the concept of the Anthropocene, an idea that has generated a significant level of attention among academics over the past decade (Clutier de Repentigny, 2022; Webster and Mai, 2020).

The Anthropocene denotes,

"...the present geological time interval, in which many conditions and processes on Earth are profoundly altered by human impact. This impact has intensified significantly since the onset of industrialisation, taking us out of the Earth System state typical of the Holocene Epoch that post-dates the last glaciation" (Subcommission on Quaternary Stratigraphy, 2019).

As such, it is paramount to reconsider the role of universities in helping clarify how humans impact their environment and to bring solutions that seek to redress inflicted damage. This requires

educational models to nurture critical and ethical thinking in a multidisciplinary context where teachers, educators, academics, and researchers are essential players in driving the transformation process as facilitators of learning and knowledge generation. Universities can guide the change through teaching and research activities by enabling active learning processes focused on developing the skills required. Diversity and inclusion are vital to helping us protect the environment and ensure peaceful coexistence with nature. In addition, higher education models must enable a process of sense-making and sense-giving regarding the importance of the SDGs. Teaching, learning, and research processes might generate actionable knowledge and strategic drivers of progress framed in transdisciplinary curricula that foster collaboration across diverse disciplines.

At the core of the challenges ahead is the extent to which sustainability can be embedded in relevant policies. Economic, political, and educational leaders should aim to integrate innovation, social inclusion, and respect for the planet, leading to better health, well-being, and economic development prospects. However, since the introduction of the UN Agenda, the SDG's goals have been affected by window-dressing rhetoric, hindering progress and, in some cases, leading to regress (Sachs et al., 2022). In addition, our leaders have failed to acknowledge the urgent need for action. Undoubtedly, it is imperative to embark on a sustainable path that requires all relevant stakeholders' involvement, commitment, and collaboration. Hence, we believe that education has an ever-more urgent role to play. As such, higher education models need to be revisited with a new pedagogical paradigm that embraces the challenges associated with the existing cultural paralysis. Unfortunately, the necessity of sustainable development has not permeated throughout the political, economic, and business classes. Moreover, the outcome is discouraging as there is an evident lack of coordination between relevant economic policies for innovation, social inclusion, and planetary stewardship (Bullmann, 2018). Individual countries' approaches to the SDGs seem to be dominated by indifference rather than actual action, which is worrying considering the seriousness of the challenges. We are immersed in a period of high uncertainty and rapid change that has been exacerbated by the global health crisis and its socio-economic effects. A process of change compounded by the Russian-Ukrainian war and other conflicts, combined with the impact of global warming, are contributing to enhancing and exacerbating poverty and displacements.

Sadly, ongoing conflicts have exposed the dominance of economic and political agendas over social, environmental, and humanitarian ones. It is time to stop, think, reflect, and evaluate our actions and their implications for future generations. In particular, SDG16 takes a prominent role

due to the importance of securing peace, social justice, and prosperity. There is no doubt that the challenges are significant and that we need to find, together, practical solutions to a difficult transition towards sustainable socio-economic and developmental models. Yet, how can we address the emerging complex challenges? Part of the answer lies in re-examining our educational models. Therefore, at the core of societal transformation, we identify the educational sector, particularly the social responsibility of universities, framed on the need to shed light on the challenges and their economic implications. In line with the Sustainable Development Goals (SDGs), these shifts must lead to transformation in how we value natural capital, how we produce and consume, how we distribute values, and how we secure an inclusive, fair, and equal society (UNESCO, 2021; Dodds et al. 2017; Stember, 1991). We need a new developmental model that builds foundations for understanding how humans and nature must interact. In this transformation, academic knowledge can be decisive. Therefore, universities' missions and visions must be coordinated globally, deconstructing their elitist habitus of discrimination, exclusion, and the generator of economic inequalities. Universities must unite to debate a realistic integration and inclusion action plan that works for all. Moreover, we need to create a critical mass of capabilities for mobilising awareness outside universities by forging collaboration between higher education institutions and other organisations.

Whilst the literature shows conflicting views on the feasibility of the SDGs, there is evidence of more positive viewpoints that welcome their vision and aspirations and the high potential of new initiatives that might materialise. According to Kharas (2015) and Kharas et al. (2019) the SDGs can be understood as the North Star guiding new partnerships, which have sprung to implement them. Emerging global, national, and local collaborations now have a sense of orientation in pursuing common goals. For example, the role of peacekeeping, the importance of sustainable development, and environmental concerns each underscore the 2030 Agenda. The nexus between conflict, poverty, and climate change challenges is prominent. As such, we could consider that they might unfold as guiding flags for action. In addition, the need for businesses to partner with governments to achieve change is a major focus of the SDGs. Therefore, the need for HEIs to understand global development's dramatic consequences and impact has been clearly identified.

Historically, the IDGs, MDGs, and SDGs have posed significant challenges, with some of the more important ones relating to countries' individual political and economic agendas. Severe criticisms of them suggest that some view the goals as flawed. They are shaped by conflicting interests, and their implementation faces significant leadership challenges when issues related to economic

growth and corruption are considered (Bexell and Jönsson, 2017). Furthermore, the UN reiterates: *"... that each country has primary responsibility for its own economic and social development and that the role of national policies and development strategies cannot be overemphasised. We will respect each country's policy space and leadership to implement policies for poverty eradication and sustainable development while remaining consistent with relevant international rules and commitments"* (UN, 2015, Transforming Our World, points 41 & 55). In this context, it is vital to acknowledge existing disparities among and within countries. Whilst each country is responsible for its own development, we are not playing on a plain level field. Some countries need more support than others. Awareness of domestic inequalities affecting nations is also needed. Inter alia, there is a need to rethink educational models. HEIs need to take a more active role in helping societies understand the magnitude of the challenges ahead and equip them with the required tools to respond.

Rethinking HEIs Educational Models

To succeed in enabling universities to be vehicles for social transformation, we need to create open and collaborative institutions in which researchers and academics challenge the way we develop educational programmes. Collaborative and global partnerships between universities and the UN are necessary, as well as collaborations between academia and other sectors. Yet, collaborations cannot be framed around economic and business motives that seem to define existing university models. It is imperative to explore the need to shift from transmissive to transformative higher education for sustainable development (Boström et al., 2018) to help us better understand their alignment with the United Nations Institute for Training and Research (UNITAR) mandate. As we reflect on the required changes, we argue that the principles defining Critical Theory and Constructive Alignment (Biggs & Tang, 2015) are our foundational perspective. Constructive Alignment (CA) can be understood as developing teaching and learning activities that are aligned with intended learning outcomes that are adequately assessed (Colding, 2019). Biggs (1996) has been recognised as the developer of the CA-Model, and together with Collis, they worked to develop the SOLO taxonomy for qualitative assessment of learning outcomes focusing on the reinforcement of cognitive learning processes and exploring implications for more complex, interdisciplinary-based university programmes (Biggs and Collis, 1982). Biggs (1996) argues that default educational models based on modes of contemporary teaching are very limited. They lead to students' passivity due to their focus on repeating information and the lack of attention to what the student does, how information is perceived and interpreted, and the actions

taken. We further suggest that universities consider education from a universal approach that integrates transdisciplinary learning to address the complexities of sustainable development.

As part of the transformative learning process, there is a need to bring into context social actions and their reflexive interactions with different fields like politics, economics, and ethics to enable us to develop a constructive critique of higher education dominant models. In line with Boyer (1996) views on HEIs, we advocate for more vigorous educational models that seek to engage with the most pressing social, civic, economic, and moral problems. By implication, academic environments and their educational models would align and reaffirm their historic commitment to what Boyer calls '*scholarship of engagement*' (1996:18). Boyer criticises higher education for aligning to the principles that guide business models. Business models that are associated with purely serving private benefits rather than being understood as a public good. Furthermore, universities and the campus culture emerge as a place where students act as consumers who buy their credentials, an idea that has nurtured the development of a toxic educational environment. Faculty turn towards the fight to get tenured positions while neglecting their teaching and learning duties and shifting their interests to working on issues that do not contribute to addressing our time's most relevant societal challenges is another area of significant concern. The academic focus has turned to achieving promotions and social status within the university walls while neglecting their students and the need to nurture social skills that promote collaboration, cultural integration, and inclusion. We argue that the pedagogy of adult learning and Higher Education needs to be part of the discussions. In order to find effective ways that support the delivery of the Sustainable Development Goals, a new educational paradigm is required. We also need to rethink university teaching and learning processes and their connection to research through the research-informed learning paradigm that permeates from researchers to teachers and learners. Therefore, we argue that Goal 4 - Quality Education, Goal 16 – Peace, Justice, and Strong Institutions, and Goal 17 – Partnerships for the Goals need to be embraced as part of universities' models and framed on early research activities seeking to bring changes for action. The seminal work of Stember (1991); the United Nations Educational, Scientific and Cultural Organization's (UNESCO) report, "Education for Sustainable Development Goals: learning objectives" (UNESCO, 2017); the Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development (UN, 2019); Dodds (2017) in "Negotiating for sustainable development goals" are examples of efforts trying to connect education and the concept of sustainability. A transformational agenda for an insecure world"; Levi and Rothstein (2019) in "Universities must lead on Sustainable Development"; Stieglitz et al. (2018) in "Beyond GDP. Measuring what counts for economic and social performance," and Vetlesen, (2019) in "Cosmologies of the

Anthropocene. Panpsychism, Animism, and the Limits of Posthumanism" and the 2021 UNESCO report "Reimagining Our Futures Together: A new social contract for education, can be considered as a good starting points to reassess the role of HEIs. Significant efforts have been made to create awareness of the urgent need to reform our educational systems and models, but the lack of commitment from governments has led to a situation characterised by the absence of significant progress and meaningful actions.

With this paper, we intend to contribute to the international debate on the need for a new kind of pedagogy that guides education for sustainable development. Educational models should aim to align with the UNESCO (2021) competencies framework promoting core values of integrity, professionalism, respect for diversity and commitment to cultural integration. Higher Education Institutions need to be able to provide learning environments that (i) secure a factual deep knowledge basis within a subject field of study or profession and (ii) equip students and learners with key and critical competencies, such as systems thinking, normative-, transdisciplinary collaboration, and creativity competencies in a solution-orientated manner, with the complexity of the sustainability challenges that we are facing as a global community. Educating for the effective delivery of the SDGs means learning through content with a problem-oriented and constructive alignment approach open to new interactions between globally oriented and locally embedded disciplines specific to adult education pedagogies. At the same, Critical Theory can be used as a driver of change, as the theory works if it meets three criteria: it must be explanatory, practical, and normative at the same time, and as such, it must explain what is wrong with our current reality, it needs to identify actors that will drive change, and it needs to be supported and articulated around clear and explicit norms that enable criticism and achievable, practical goals for social transformation (Stanford Encyclopaedia of Philosophy, 2022).

Furthermore, we argue the need to reflect on enabling multidimensional and multifaceted educational models that acknowledge the complexities of our global economic and political systems. HEIs educational models need to offer insights that help us better understand the need for an agile, adaptive, multidimensional and multifaceted educational framework. According to Kohl et al. (2022), HEIs and their leadership teams have not been able to use their potential to impact and contribute to developing a sustainable future. Thus, HEIs are identified as critical agents for development, either as a way of developing human capacity, increasing skilled individuals for modernisation, or developing both individual and community-level professional capital. But regrettably, existing educational models are not able or capable of responding to our

socio-economic and environmental reality. As such, there is a need to rethink the role played by education. In line with a comment made by Arundhati Roy more than ten years ago,

"Somewhere along the way, Capitalism reduced the idea of justice to mean just "human rights," and the idea of dreaming of equality became blasphemous. We are now fighting to tinker with reforming a system that needs to be replaced." (The Guardian, 2011)

As we reflect on required changes, governance emerges as a fundamental factor to be addressed as part of future educational models. Future generations of workers, members of families, societies, and the overall global business network in the ecosystem need to be aware of the importance of finding mechanisms that enable us to work together so that we can move forward while ensuring that we have appropriate safeguards that protect the global financial system, avoid political and social conflict through violent conflicts affecting countries and their national institutions and governments, and the multi-decadal struggle to take global action to manage environmental degradation derived from economic and business activities that have materialised on significant levels of pollution, increasing greenhouse gas emissions and derived health problems (Patterson, 2015).

Conclusions

Humanity is facing a dramatic and unprecedented deterioration of its environment. In addition, there are opposing arguments surrounding the feasibility of the UN 2030 Agenda, with differing vested interests threatening the achievement of the SDGs. The current magnitude and speed of environmental degradation are unprecedented. Increasing levels of pollution derived from unsustainable business activities and consumption patterns have contributed to the severe depletion of natural resources. The world's inequitable economic development is aggravating poverty, driving a climate crisis, and causing people displacement derived from the intensification of natural disasters associated with climate change. This vicious cycle has reached a dramatic inflexion point where humanity faces an existential threat. Life-supporting ecosystems have been harmed to the extent that there are already profound and irreversible implications for future generations (Rockström et al., 2009).

Therefore, HEIs have a crucial role to play in our societies, as they are critical actors in the development of educational models, the integration of research in the learning process, the informing of policy, and, more importantly, in the dissemination of knowledge. As such, the role of HEIs should not be limited to their students. Their operations need to reach broader spheres of

influence, ranging from communities, business networks, the political class, and our whole society, as we are responsible for creating a system that works for all. Therefore, we argue that existing educational models need to be rewired based on careful reflections on how we should educate our society for sustainability and responsible citizenship. Undoubtedly, HEIs are poised to play a prominent role in our future development, either to help us progress and develop or to keep us anchored on a learning model that is not working and does not provide the required alternatives to navigate our contemporary socio-economic and environmental needs.

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Working with the Intercultural Competence in Higher Education as a Path Towards Inclusion: A Practical Example from EUT+

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Abstract

The UNESCO defines the concept of interculturality as “the existence and equitable interaction of diverse cultures and the possibility of generating shared cultural expressions through dialogue and mutual respect,” according to the article 4.8 of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions.³ A derivative of this concept would be “intercultural awareness,” which can be defined as the conscious understanding, free of clash, of the fact that people from different cultures have different values. In contrast to interculturality, which accepts and assimilates ways of living and thinking from different cultures, multiculturalism simply refers to juxtaposed cultures that coexist in a single environment, though not exposed to partial assimilations among them.

Furthermore, both in the academic and the professional world, the term “intercultural competence” is widely used. If culture can be defined as “the sum of a way of life, including expected behavior, beliefs, values, language and living practices shared by members of a society” (Hofstede, 2001),

³ <https://en.unesco.org/creativity/interculturality>

intercultural competence may be understood as “the ability to develop targeted knowledge, skills and attitudes that lead to visible behavior and communication that are both effective and appropriate in intercultural interactions” (Deardoff, 2006). Its spread is directly related with other concepts of deep psychological load, such as empathy. Moreover, it has turned out to be fundamental when applied to global challenges such as massive migration or climate change.

The transversal implementation of the intercultural competence in Higher Education has already been proved, for instance, with students in the German-Polish border (Hiller, 2010), Spanish students interested in applying for an Erasmus program (Adalid Donat *et al.*, 2018), and Mexican students of Tourism, regarding their motivation for learning languages (Nigra, 2020), among many other current examples. Whatever the practical approach to the issue, all researchers agree that: a) the intercultural competence can and should be specifically taught in Higher Education; b) this can be successfully done in a transversal way (quite often, but not exclusively, in association with language teaching); c) and finally, the acquisition of this competence prepares students for the future demands of complex, uncertain professional domains.

This paper focuses on a recent experience carried out within the EUT+ frame, a pilot project based on interculturality and German as a foreign language that could be transferred to the rest of partners on a larger scale in the future. Entitled “DACADU: Interkulturelles Projekt,” the project has included students of German of three different universities (Darmstadt, Dublin and Cartagena) with language levels ranging from A1 to C1. The initiative is inspired in a “logbook” recently published by the *Bundeszentrale für Politische Bildung*, an official organism that works for the effective integration of migrants in Germany. The logbook teaches young migrants not only through language, but also by means of allowing the two cultures of the participants (the one left behind, and the new one) blend and interact with the help of a variety of activities that encourage self-reflection, discussion, and language awareness itself.

Following this governmental model, we (the DACADU developers) have opened a blog to which the participants have made weekly written and audiovisual contributions, based on assignments explained in class, for the practice of the intercultural competence from different angles. To that end, we have replaced the focus on migration issues by another one closer to work, study, and academic environments relevant to the personal circumstances of our own students.

The innovation that this proposal introduces within the realm of interculturality in Higher Education is that the materials designed by the instructors from the three institutions for the practice of the intercultural competence were only and exclusively dealt with in our respective German language courses. In contrast, the contents that have gradually shaped the blog, and whose input has had

a reflection, week after week, in the new assignments, have been designed by the students themselves (with the instructors acting only as supervisors at this stage of the project).

The working method has also been innovative: in small groups that included at least one student from each institution, these were asked to meet up through social networks at least once every week, discuss the given assignment together, and help one another with their respective proposals. To make communication more effective, they were encouraged to use not only German, but also English during these meetings whenever necessary. Although they were free to organize this part of the activity on their own accord, the instructors were constantly monitoring it from the outside, asking for feedback, establishing certain deadlines for evidence and results, correcting errors detected throughout the process, and holding their own parallel meetings and discussions along the way.

Developed during the second term of the 2021-2022 academic year, this paper discusses the different phases of the project, with special attention to: a) the nature of the tasks/topics assigned and the materials produced; b) the sequencing of the project; c) the evaluation tools designed, aimed both at measuring the degree of satisfaction among students and related issues (motivation, learning enhancement, raise of awareness), and the improvement in the acquisition of language and intercultural content. All in all, the experience provides a practical example of how to deal with inclusive practices in Higher Education through language learning and interculturality.

Keywords: Intercultural competence, Higher Education, Logbook, Language learning, Inclusion.

Working with the Intercultural Competence in Higher Education as a Path Towards Inclusion: A Practical Example from EUT+

Introduction

The demands for internationalization within the EU Higher Education networks have allowed for the establishment, among other initiatives, of strategic alliances such as the EUt+ frame that hosts this *rise2022* encounter. The technological aspect of this alliance obviously holds a strong appeal, being the technical demands of our society in urgent need of specialists worldwide, and offering all our institutions specialized degrees and masters' degrees in technical and scientific domains. However, the socio-cultural side of the EUt+ initiative, as it is formulated within this Conference through the keywords of Equity, Inclusion and Sustainability, shows to what extent one part of the equation complements the other. Within the lines of the latter element of our common challenge, the present paper explains the process and results of an international, collaborative, Higher Education teaching/learning initiative within the EUt+ program for the practice of the intercultural competence among students of the German language.

If culture can be defined as “the sum of a way of life, including expected behavior, beliefs, values, language and living practices shared by members of a society” (Hofstede, 2001), intercultural competence may be understood as “the ability to develop targeted knowledge, skills and attitudes that lead to visible behavior and communication that are both effective and appropriate in intercultural interactions” (Deardoff, 2006). Other key issues implicit in the concept are “global competence, multiculturalism, cross-cultural adaptation, intercultural sensitivity, cultural intelligence, international communication, transcultural communication, cross-cultural awareness and global citizenship” (Fantini, 2009: 196).

The implementation of the intercultural competence in Higher Education—from now on referred to as ICC—aims to encourage the formation of “interculturally competent graduates as global citizens”. From this perspective, “ICC not only needs to be contextualized by the academic disciplines and the professional needs of a global labor market, but universities also have to

respond to the wider societal needs. This means teaching students how to live productive and responsible lives in which global interdependence is not simply framed by economic benefits but also includes an understanding of their role in developing and maintaining a sustainable equitable society and world for humankind” (Gregersen-Hermans, 2017, 11). Furthermore, the development of the ICC in academic environments requires, in practical terms, that “graduates need to be able to conceptualize and behave inside and outside a local context simultaneously. They need to be able to make moral judgements and ethical choices that are based on a deep level of cultural awareness and understanding, while engaging in culturally sensitive collaboration within the local environment” (Gregersen-Hermans, 2017, 11).

Hence, the development of the intercultural competence in Higher Education must be approached as a transversal task and, not exclusively, but most favorably, in close connection with language learning. From the main components of any language-learning process—linguistic, discursive-pragmatic, sociocultural, strategic, and personal—, the emphasis on the sociocultural associated to the linguistic one may easily permeate the rest of them, with special attention to the personal traits (Adalid Donat *et al.*, 2018), thus triggering both social and individual progress in the participants. Furthermore, the effective application of ICC strategies before taking part in an Erasmus exchange, for example, avoids the so-much feared “cultural shock” (Alves & De la Peña, 2013) and leads to a correct process of acculturation among participants (Berry, 2005). In short, its assimilation both by undergraduates and graduates leads not only to the improvement of social awareness and tolerance in multilingual and multicultural societies, but it also contributes to the rise of the levels of employment and economic benefit in professional specific sectors. A case in point could be that of the tourism industry, one of the pillars of Southern-European states and of developing economies (Onghena, 2003; Fusté *et al.*, 2015).

Our own contribution to the implementation of the ICC in our institutions, and on a partner-oriented basis, stems from two theoretical/methodological factors that have in fact become ever-present in Higher Education teaching environments during the last decades: blended learning, and digital/multimodal written communication. Both of them are included in the larger frame, from the instructors’ perspective, of pilot framework fundamentals.

Theoretical/Methodological Factors

The first aspect of our proposal for the practice of the ICC is clearly related to the implementation of online teaching strategies. The COVID crisis has produced a worldwide acceleration of the ongoing processes that have fostered blended learning in all its forms since the end of the twentieth century: instructors and students from all the continents, supported by IT teams, have

developed IT advanced skills for all disciplines in no time. Within the broad concept of blended learning (Torrison-Steele & Drew, 2013), we adhere to the definition provided by Bliuc, according to which “Blended learning describes learning activities that involve a systematic combination of co-present (face-to-face) interactions and technologically-mediated interactions between students, teachers and learning resources” (Bliuc et al., 2007: 234). In this specific case, the possibilities that online capabilities offer have allowed us to surpass the limits of the physical classroom, thus enhancing their possibilities not only with regard to the practice of the ICC, but in many other ways (Carbajosa & Rea).

On another note, the principles of blended learning also fall into the limits of one term claimed by the EUt+ program within its foundations, namely, *Collaborative Online International Learning* (COIL). The term joins key issues such as technology, internationalization, and virtual collaboration in Higher Education institutions (Taylor, 2017). If, at the beginning of the national lockdowns caused by the pandemic, lecturers all over the world switched to urgent forms of online teaching for purposes exclusively related to their courses—that is, the change was mainly conceived for the same uses of an intranet, as it were—, this two-year experience has paved the way for a step out of the boundaries established by each particular institution, and whose limits are still unexplored.

Without denying the importance of traditional tuition in academic environments—a lecturer who, in class, introduces a topic, designs activities, gives instructions, and manages participation—, for the purposes of the activity described in the present article, the use of asynchronous learning models (Hiltz & Goldman, 2005) that enable a real contact among students from different countries in online encounters unmediated by lecturers has proved to be crucial for the enhancement of intercultural awareness. At the same time, and under similar guiding lines to those offered by blended learning, the processes initiated have helped increase our learners’ autonomy, creativity, and motivation. Such outcomes, already associated with this hybrid teaching-learning model (Rapanta *et al.*, 2020) will be later discussed in relation with the project explained in this article.

The second factor related to this proposal and, again, in full consonance with blended learning, is known as digital written communication. Digital writing can be described as “written communication that goes beyond just text, is created through the use of technology, and is connected with and made available by a wide network of web-based resources”.⁴ As in the case of blended learning—although for different reasons—, the blurring of borders that digital writing offers in teaching and learning processes does not only affect the physical limits of the classroom;

⁴ Developing Digital Writing Skills, <https://www.onlinecollege.org/developing-digital-writing-skills/>

it also removes the foundations of writing as a genre in itself. Thus, the established frontiers are surpassed between oral and written, formal and informal, individual and collective, text and audiovisual communication.

Born as a professional activity for web and content designers (Lawrence, 2022), the extended use of digital writing skills in education and at all levels has proved unimaginably enriching, as well as multimodal-oriented (Bickford, 2020; Oskoz & Elola, 2014), as it will be proved in the account of our own experience. Moreover, the adoption of digital writing as the main working method for the project described renews the classical task-based teaching paradigm (Meri-Yilan, 2020), while it fosters self-regulating practices by its practitioners (Calle Álvarez, 2015).

As a corollary to the crucial aspect of digital communication, it is also important to remind that the EUt+ is at present developing a series of seminars under the common title of “SUCCESS: Digital Communication in 21st Century,” whose first encounter took place on April 2022 at the Technical University of Cartagena (UPCT) with the participation of students from several partner universities. This initiative is bound to continue during the next two years, with follow-up seminars at different campuses within the EUt+ frame. Its outcomes will no doubt increase the awareness of digital communication in academic environments.

Finally, the current proposal follows the guidelines of the document “A guide to piloting WP2 initiatives in EUt+,” according to which the uncertainty inherent to any starting teaching initiative may be partially modelled and assessed throughout the process for a more successful outcome.⁵ Basic issues involved in any project frame, such as goals, time limit, pilot group, plan, feedback, and challenges have been therefore duly addressed. In fact, the results are ready to be implemented in a larger phase, engaging new agents, challenges, and concepts beyond the ever-present ICC, or associated with this.

The DACADU Project

Origin of the DACADU-Intercultural project

Based on the above-mentioned conceptual and organizational premises, the authors of this contribution decided to work together on ICC and to involve our respective students from the German language courses. Together with this purpose, we also intended to highlight the importance of German as a language of international communication, that is, not to conform to the

⁵ <https://ec.europa.eu>

fact that English should always be the common language in areas and encounters not strictly national; and in this way, to appeal to the richness that comes from enjoying a greater linguistic variety, such as the one offered by the European context, which is an indisputable sign of cultural richness and diversity.

As a starting point, we lecturers from the Hochschule Darmstadt, the TU Dublin and the Technical University of Cartagena were inspired by an eloquent initiative: a *Logbuch*, or logbook, published by the *Bundeszentrale für Politische Bildung*.⁶ One of the objectives of this official German organization is the integration of immigrants in German society, not only through the teaching of the language and culture of arrival, but also by establishing respectful and constructive comparisons with the cultures of origin. This is achieved by proposing oral and written activities presented in an open and creative way, and easy to adapt to different levels and ages.

From the methodological point of view, the Logbuch offered us introductory activities in the form of worksheets (for example, those entitled: *Wer bin ich, Mein erster Tag in Deutschland*) with which to develop oral and written tasks that, on the same basis of intercultural practice, were closer to the academic and professional context, that is, to the interests of our university students. Likewise, following the example of the suggestive title of the source material (*Neuland*, that is, New Land), we decided to entitle ours with an acronym derived from the initial letters of the three universities (DACADU), as well as with the inclusion of the key word for the whole subject (*Interkulturell*).

Objectives and methodology

The DACADU-Intercultural Project, as mentioned above, was conceived to develop the intercultural competence through the learning of German in a collaborative way, that is, by putting students from the three institutions in communication in order to solve a series of specific tasks related to interculturality. In addition, we would be promoting autonomous learning, contact between the different cultures and languages of origin of the participants and, of course, creativity. Given the "virtual" nature of the project, the concrete way of implementing this general objective has adopted most of the possible forms that digital communication allows us, both oral and written, combined with face-to-face (the traditional classroom), and in all its possible variations: telematic meetings among lecturers, between lecturers and students, and among students in working groups through various platforms; use of social networks by students and according to their choice (Whatsapp, Instagram, email); individual writing of assigned tasks for students; correction of

⁶ <https://www.bpb.de/shop/materialien/thema-im-unterricht/228373/logbuch-neuland/>

written assignments by teachers; recording of videos in the students' working groups with feedback provided by the students themselves; and evaluation of partial and final results through surveys prepared by teachers.

Finally, all the results have been published week after week in a blog created for this purpose, initially restricted to the people involved in the activity, but with the ambition (with express consent) to make it known to the general public after the end of the project.⁷

Unlike the Logbook we were inspired by, which includes ready-to-solve activities, for our project we decided to introduce in our respective classes simple instructions on the tasks to be developed and on a weekly basis, with the aim of having the students themselves produce content, both written and audiovisual, rather than simply completing already given assignments. As such content was added to the blog, the new required tasks fed back into the content already posted, so that students had to refer back to the contributions of their group mates from previous weeks in order to make further progress. In this way, the written assignments became reading exercises, while at the same time expanding the mutual knowledge of interests and experiences among the participants. In addition, the prospect of having their own contributions published made the students take on a higher responsibility in terms of correction.

Team- and work dynamics

The project involved 6 students from the UPCT of Spanish nationality, between 8 and 10 students from the Hochschule Darmstadt from India, Serbia, and Russia, and between 6 and 8 students from the TU Dublin of Irish nationality, although some of them had roots in other countries (Czech Republic, Rumania, and the Philippines). The participants from Cartagena were studying a degree in Tourism, had A1-A2 language level, and for them German was their second or third foreign language after English and French; those from Darmstadt were mostly studying Engineering Degrees and/or Masters' Degrees in Communication, and had a B1 level since they were integrated in the university system of the country; all of them spoke several languages. The Dublin students were also multilingual, students of an International Bachelor's Degree in Business Economics, and had an A2-B1 level of the language. In addition to the German students, the Hochschule Darmstadt brought in two international students from Masters' programs related to digital communication to be responsible for the development of the blog.

For the group work, 6 teams were designed with at least one student from each university, in

⁷ <https://interculturalblog-hda.de/>

some cases two. After each lecturer explained in her own class sessions the corresponding activity for each week, the teams agreed on a meeting by social networks, watched each other by video and discussed the topics, and finally solved the written task individually, but incorporating the contributions taken from the group meeting. This was true for the first three sessions. The last task, however, consisted of recording a joint video from a script with content from the previous three weeks' contributions, in the form of short interviews among the participants. In all cases, the students sent the written exercises to the lecturers before uploading them to the blog, so that they could correct them.

Based on the design of common worksheets or *Arbeitsblätter*, each lecturer was free to include the presentation of the activities and the associated instructions in his or her own classroom dynamics as she wished. With students at the beginning levels, the previous workload, i.e., the input in the face-to-face classes, was obviously higher. Bearing in mind, however, that the contents of the subject of the Tourism degree course taken by the A1-A2 level students (German for tourism) already implicitly include the axes of interculturality, this inclusion was quite naturally made. The topics covered were the following:

-Woche 1: Wer bin ich? Mein Alltag an der Hochschule.

-Woche 2: Mein erster Tag in Deutschland: Realität/Erfahrungen und Erwartungen. What is Germany for me?

-Woche 3: Vielfalt erleben: Individuell, in der Universität, in meiner Stadt.

-Woche 4: Hier sind wir: Erlebte Vielfalt.

Obviously, each student's contribution has been validated, with a view to the blog, according to his or her starting level. Thus, writing on the same topic, differences in vocabulary and expression can be observed:

Contribution by a B1 student:

Wie und wo erleben Sie Vielfalt: In meiner DACADU-Gruppe

Die zwei Wörter, die Vielfalt in unserer Gruppe erklären: mehrsprachig und multikulturell.

Wegen der Mehrsprachigkeit sprechen wir alle viele Sprachen, und die zwei Sprachen, die uns näher zusammenbringen, sind Englisch und Deutsch. Eines Tages unterrichteten Agustín und Max mich in Spanisch. Das hat Spaß gemacht.

Contribution by an A2 Student:

Vielfalt ist für mich: Freunde von allen Altersgruppen und Bürger aus verschiedener Herkunft

Individuell

Ich habe viele Freunde von allen Altersgruppen, weil ich verschiedene Aktivitäten gemacht habe, z.B.: Ich habe in verschiedenen Restaurants gearbeitet, ich lerne auch Englisch und Deutsch nachmittags an der Sprachschule und es gibt dort Leute von verschiedenem Alter. Dank dieser Umstände bin ich persönlich sehr gewachsen.

Taking this disparity of levels into account, throughout the project the students were offered the possibility of using the language in which they could best understand each other for communication, even though the result of the task had to be in German. In fact, the lecturers gave absolute freedom to the way in which the groups decided to meet, coordinating only the introduction phase of the activity, the corrections, and the deadlines.

Observations on the content generated

Both in the introductory contents (the worksheets or *Arbeitsblätter* created by the lecturers based on examples taken from the Logbook) and in the entries that the students contributed to the blog, we encouraged the use not only of text and/or video, but also of images: both personal photographs and photographs taken from a publication to illustrate, for example, contrasts regarding diversity, as well as links to web pages, references to popular culture in the form of music, cinema, comics, soccer, etc.

Thus, to the same extent that German became the instrument for the practice of intercultural competence—an objective that we have never lost sight of, as a result but above all as a process in the working group meetings—, the tasks solved by the students have been reflecting, as an added value, what we understand today as digital creation: collaborative work and in process, the multimodal nature of the exercise—written but also audiovisual, with associated links and hypertexts—and, above all, the weight of writing/recording/producing not merely as a class exercise, but with a much higher projection.

In fact, the knowledge that the contents were going to be shared and published had a direct impact on the motivation towards language learning and on the will to "succeed", both in

writing—focusing on grammatical and spelling correction—and orally—taking care of pronunciation and intonation—, as well as trying, despite the differences in level, to keep the level of the contributions of other classmates, who have not ceased to support each other. This motivation, directly related to the increase in personal responsibility, has gone beyond the urgency of the traditional utilitarian purposes—passing the subject or acquiring rudimentary or intermediate knowledge of the language—to become something more: it has become a living language, a language in use and applied to purposes that are not simulated but authentic. The individual benefits, both personal and linguistic, of the project will be addressed in the evaluation section.

Phases of the project

The project has been developed throughout the second four-month period of the academic year 2021/2022 according to a scheme that, in principle, may seem short—only 4 weeks of effective work in the form of content contributions, plus an extra week after the Easter vacations to complete the recording of the group videos because it is a task of greater complexity than the previous ones. However, the preparatory work, including the presentation to the students with the desire to give clear instructions, as well as the subsequent evaluation activities, have considerably extended the time of effective work and participation. The different phases, as a whole, were as follows:

Phase 1: Online meetings of the responsible teachers for the creation of the project: formulation and delimitation of objectives, sequencing, design of teaching materials in shared documents.

Phase 2: Establishment of working groups of 3-4 members with at least 1 student from each center, with a different native language and, in many cases, with different levels of the language; initial Zoom meeting with all participants for the presentation of the project and all participants.

Phase 3: Implementation of the project: over several weeks, the work scheme was repeated (introduction of the topic and the task in class; working group meetings; correction of the task; publication on the blog). In addition, a weekly hour of tutoring via Teams (*Sprechstunde*) with one of the lecturers of the project was given offering the possibility for students to ask any queries they may have in both English and German.

Phase 4: Conducting evaluation surveys. A partial survey was introduced after Week 2, for the coordination and testing of the collaborative activity around the concept of diversity (*Vielfalt*). A much more comprehensive survey was commissioned at the end of phase 3, basically for the measuring of the students' level of satisfaction and the tips for further improvement.

These four phases have been feeding each other with frequent meetings among lecturers and incorporation or modification of materials; exchange of impressions with students inside and outside the classroom, in groups or individually; and mid-project surveys such as the one, already mentioned, that was developed around the theme of the second week (*Was ist Deutschland für mich?*), as a follow-up and support material for the activity corresponding to that week.

As a conclusion to the students' involvement in the project, the task programmed for Week 4 introduced new elements of reflection and feedback on the previous collaborative work, while it took a new step, from written to audiovisual format. Students were asked to revise the previous entries from their group partners and elaborate a joint interview, with questions and answers and a short discussion about the different ways in which they all dealt with diversity, interculturality, and inclusion.

Observations, preliminary conclusions, and future perspectives

Although the final evaluation survey is still in progress at the time of submitting this paper, some data can already be extracted. The creation of the blog as a visible result composed of student content is cited in the survey as the greatest attraction of the project, rated with the maximum score of 5. The intrinsic motivation of participants exceeds 85%. Approximately 60% disagree with the relationship between their personal motivation and the grade for the course, while almost 95% confirm that their main motivation was "the desire to improve intercultural competence by collaborating with others". The individual comments of the participants also have an impact on this:

'The DaCaDu Project was an excellent experience [] The DaCaDu project was very well organised with clear assignments and pre organised groups. I would definitely recommend this project to future students if the possibility arises'.

'I would like to have been able to do a few more posts because writing them and supplying pictures was really fun.

'I was motivated to be a part of this project for two reasons - cultural learnings through students across Europe and improve my German. I am very content with the quality of activities that were given which enabled me to actively learn about each other'.

'This experience has been helpful in different ways. I learnt German by speaking with my partner and I was helped by her anytime I needed. I learnt a lot from her and I loved hearing and sharing experiences. I also like the way this project is being developed but I consider that it should be longer'

Although the final evaluation survey is still in progress at this moment, some data can already be extracted. The creation of the blog as a visible result composed of student content is cited in the survey as the greatest attraction of the project, and rated with the maximum score of 5. The intrinsic motivation of the participants exceeds 85%. About 60% do not agree with the relationship between their personal motivation and the course grade, while almost 95% confirm that their main motivation was "the desire to improve intercultural competence by collaborating with others".

Due to deadline limitations, this paper cannot analyze the final statistical results of the survey in depth yet, in spite of the partial pieces of information included. Concerning the content evaluation of the project (vocabulary and expression), given the different starting levels of the students in each institution, each lecturer designed specific evaluation tools within the limits of their respective course description units, learning objectives, programmed exams, etc.

As a complement to the work done, the Hochschule Darmstadt has offered to host a real meeting in October 2022, so that all participants can get to know each other personally. To coordinate this, the teachers have published an extra task on the blog (*Wir reisen ab!*), in which the students will have to put into practice a topic common to all of them in their learning of German: how to give directions and talk about means of transport. Obviously, motivation in this respect is at a maximum, since this is a real task, not a classroom exercise. With the DACADU meeting in Darmstadt, the project enters another phase, with future meetings in Cartagena and in Dublin. It remains to be seen whether such an activity can be transferred to other educational contexts, both within and outside higher education, without ever losing sight of the promotion of German language teaching, and with the added value of intercultural competence.

Limitations of the project

The possibilities offered to the lecturers in the incipient phases, that is, while the project was being conceived, were multiple: Should we include the three official languages from the universities

involved—English, Spanish, and German—or focus only on one of them? Should we involve full groups of students in our ongoing courses, or offer it only for students who voluntarily agreed to take part in the project? What did we want to achieve, and how? How long would the project last? Which specific contents would we like to impart?

Little by little, we managed to draft a program that included all the four sensibilities and proposals. Since the available time was short—the second term of the 2021-2022 academic year—, we chose to focus on just one language, and a reduced number of volunteering students. This means that the project cannot be, nor does it aim to, an accurate model for similar experiences in larger contexts, for which different issues may arise. In contrast, the attention to the students has always been close and quick in problem-solving terms, because their reduced number allowed for close accompaniment. The initial stage, for example—giving them clear instructions about what to do and how to proceed—took some time until all the participants incorporated the spirit and expected outcomes, duly scheduled, to their own study routines.

As for the topics chosen for the tasks, they could evidently have been more varied if we had had more time available. Apart from academic and everyday life, cultural diversity, and the introduction to the German culture, it would have been desirable to tackle other issues such as sustainability, social engagement, work, and world challenges, among many others. This circumstance leaves the project open to either a second phase with the same students, or a more comprehensive edition with larger numbers of participants and lecturers. Once the final step of evaluation is completed, for which a thorough discussion must be carried out, the project will surely adopt either of these plausible directions.

Dissemination initiatives

Once the pilot phase of the project has finished, the lecturers are taking time to present it in international forums and journals, mainly under the EUt+ frame. There have already been submissions and events, and some others are underway, in the three countries of the three universities involved: Germany, Ireland, and Spain.

If academic dissemination is important, student dissemination must be addressed as well. The blurring of limits between academic and non-academic input propitiated by digital communication as a more and more common practice in Higher Education has of course its counterpart in the new channels available to our students. i.e., social networks—either professional or private—through which they help spread links, news items, videos, contributions, or any other materials created and edited by them regarding the project. This way, students take up individual and group responsibility for the visibility of their results, as they had previously done in their workgroups—

deciding when to meet, how to discuss the topics assigned, what to post after that, etc. In addition, this part of the project keeps group engagement alive for a longer time than the one structured by the lecturers. Consequently, the time frame of the activity, as it had already happened concerning the space frame, is extended for the right purposes. Learning communities are thus forged and projected, and leave the path open for future encounters or collaborations outside the project itself among participants, mostly spontaneously.

Conclusions

So far, the focus of the present article has been kept on the concept of ICC. However, the second part of its title is “A Path Towards Inclusion.” In this regard, we aim to relate the experience presented with one of the topics included in the rise2020 Conference: “Explore the impact of different cultural contexts that shape higher education transformation today, and the creation of strategies, policies and plans for an equitable, inclusive and sustainable model of higher education.” The transformation of a class activity into something larger, more diverse, and with the goals already stated, has no doubt led to a higher awareness of the importance of interculturality in our diverse societies, for the lecturers no less than for the students.

There is also an organizational issue that must not go unnoticed, although it can be alternatively be considered a limitation or simply a hint of the open, transversal nature of the project: The three universities involved differ entirely in the ways German courses are inserted in their study plans, as well as in their learning objectives. For the students in Darmstadt, whose every-day and academic life depended basically on a fast acquisition of the language fundamentals, the learning pace was crucial. For the students in Dublin and in Cartagena, German was their first or second—sometimes third—option of a foreign language. In the case of the Dublin students, the “International” side of their degree (International Business Economics) makes the study of languages all the more relevant. As for the Tourism students in Cartagena, the characteristics of the tourism industry in the area—formed mainly by British and German customers—equally call for a thorough foreign language training and, more specifically, in the language teaching variety of LSP (Language for Specific Purposes). In the latter case, however, the subject is simply offered as an elective course, and its scarce number of weekly teaching hours does not allow for a quick advance. Moreover, the Spanish circumstances offer a few particular features: German is a foreign language scarcely demanded by learners outside very concrete environments, such as the Balearic Islands. From this perspective, working with Higher Education students of German in

Spain seems a correct path towards employability, while it points at the need for linguistic diversity further than simply spreading EFL (English as a Foreign Language).

Bearing all these factors in mind, the willingness with which all the students from the three institutions agreed to meet tight deadlines, hold weekly meetings and present results within the DACADU proposal, reinforces the value of the experience as a highly inclusive one: alongside the linguistic and intercultural factors, and notwithstanding the shortcomings, it has certainly improved autonomy, leadership, creativity, teamwork, and empathy, among other interpersonal skills. The opportunities that the EUt+ program offers to all of us for these and any other similar initiatives, easily scalable and implementable thanks to the use of IT resources and teaching-learning methods such as blended learning, and according to methodological strategies such as digital communication, should and must be brought to the forefront. Their contribution to the creation of international learning communities based on mutual respect for differences, collaborative work, motivation for challenge and, above all, a genuine curiosity towards the uses of this world, is already fostering inclusion and setting aside misunderstanding or prejudice. More importantly, it is certainly paving the way for more efficient future working communities in all knowledge areas, and all of it, thanks to the focus on interculturality.

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Embedding anti-racism in the Community Development and Youth Work programme: the focus on positionality

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ABSTRACT

Racism is and has been a persistent feature in Irish society (McVeigh, 1992). Higher education institutions (HEIs) and practice education settings are a microcosm of Irish society and therefore also sites where racism is experienced and/or witnessed by students. Research (Poole, 2019) found that some students on our Community Development and Youth Work (CDYW) programme witnessed racism on placement but did not feel equipped to respond. We were awarded IMPACT funding in partnership with the EDI Directorate in TU Dublin to embed anti-racism in CDYW teaching and learning in 2020/2021 and have continued this work to date.

For the purposes of this paper, we will focus on the importance of positionality for future community development and youth workers and its impact of their practice. First, we argue that developing racial literacy, embedding anti-racism at a programme level, and developing a broader awareness of dynamics of advantage and disadvantage at multiple levels - individual, institutional, structural, and historical – is a long-term endeavour. It requires intentional scaffolding across programme modules. Second, we argue that the success of this is significantly dependent on raising educator and student awareness-levels of their own positionalities and how they are shaped by 'how things work' at an institutional and structural level. Storytelling is one way of raising awareness of positionalities and their connections to wider power dynamics. We argue that to build racial literacy in a classroom context, students need to learn about each other's life stories and an orientation toward curiosity and a willingness to stay with discomfort must be fostered. Conceptual and theoretical frameworks must be introduced at multiple points with students enabled to build their understandings and the complexity of same incrementally over time. Finally, we argue that a

key component of developing racial literacy among White settled students and educators, is the need to locate and understand their racial/ethnic position within the dominant contemporary norms which have been shaped by the specific Irish historical complexities.

Key words: anti-racism, higher education, Ireland, community development, youth work, whiteness

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Introduction

The Black Lives Matter protests of 2020 highlighted ‘the pandemic of racism’ (Joseph & Michael, 2021, p. 6) as both a global phenomenon and a pervasive feature of Irish society (see for example Walsh, 2017; McGinnity et al, 2017). Inward migration has had a significant impact on Irish society, particularly over the last two decades. While diversity is a reality of Irish society in 2021, it is not a new phenomenon (Murray & Urban, 2011). However, the scale of immigration experienced since the mid-1990s, and the range of ethnic diversity is new with people from 200 different countries of origin living in Ireland (CSO, 2017). While Irish society has witnessed an increase in racism reported (see Michael, 2021), similarly, racism is not a new phenomenon, nor indeed can it be exclusively linked to the rise in inward migration of the recent decades. Rather, racism is and has been an enduring characteristic of Irish society (McVeigh, 1992). The experience of Travellers (Joyce, 2018) or the discriminatory treatment of mixed-race children in Mother and Baby Homes (CERD, 2019; Cox, 2021) are just two examples.

Higher education institutions (HEIs) and practice education settings are a microcosm of Irish society and therefore are sites where racism is experienced and/or witnessed by students. While there is ample research evidencing this in the UK (Bhopal, 2018; Akel, 2019; Boliver, 2018); with some notable exceptions, there is a dearth of Irish research on experiences of racism in the higher education sector (Darby, 2020; Poole, 2019). Regarding our own programme, Community Development and Youth Work (CDYW) in TU Dublin, Poole (2019) found that some students witnessed racism on placement but did not feel equipped to respond. Partly in response to these findings we were awarded TU Dublin [IMPACT](#) funding in partnership with the EDI Directorate in TU Dublin to embed anti-racism in CDYW teaching and learning in 2020/21 (Year 1)⁸. The overall aim of this project was ‘to embed anti-racism in the CDYW programme with three core objectives:

1. Embed anti-racism in the CDYW programme modules

⁸ Further information on the particular TU Dublin IMPACT funding stream received is available [here](#).

2. Increase the racial literacy of staff and develop their reflective practice regarding anti-racism
3. Support students to identify racism and empower them to respond to it' (Ní Chonaill et al, 2022).

In 2021/22 (Year 2) we continued to progress these objectives and we also prioritised the production of an Anti-Racism Placement Resource.

In this paper, we identify key learnings from our work thus far. First, we argue that developing racial literacy, embedding anti-racism at a programme level, and developing a broader awareness of dynamics of advantage and disadvantage at multiple levels - individual, institutional, structural, and historical – is a long-term endeavour. It requires intentional scaffolding across programme modules. Second, we argue that the success of this is significantly dependent on raising educator and student awareness-levels of their own positionalities and how they are shaped by 'how things work' at an institutional and structural level. Our positionalities involve how differences in social positions and power influence our identities and what we have access to in society (Misawa, 2010; Tien, 2020). Storytelling is one way of raising awareness of positionalities and their connections to wider power dynamics. We argue that in order to build racial literacy in a classroom context, students need to learn about each other's life stories and an orientation toward curiosity and a willingness to stay with discomfort must be fostered. Conceptual and theoretical frameworks must be introduced at multiple points with students enabled to build their understandings and the complexity of same incrementally over time. Furthermore, we argue that a key component of developing racial literacy among White settled students and educators in particular, is the need to locate and understand their racial/ethnic position within the dominant contemporary norms which have been shaped by the specific Irish historical complexities.

Developing Racial Literacy

Developing racial literacy is an ongoing process, which involves both learning and unlearning. Historicising processes of racialisation (historical racism); identifying how they have shaped present day laws, regulations, and norms (structural racism); how these play out at an institutional level (institutional racism); and shape our individual positionalities, and everyday manifestations of racism such as microaggressions and hate speech (individual dimension), is a central component of the teaching and learning process (INAR, 2020; Yancy, 2019). Although processes of racialisation are derived from global histories of colonialism and capitalism in particular, they

also take distinct forms in each society. It is thus important to understand and make connections between local histories of domination and hierarchy, and global processes (Joseph, 2020b). Developing an understanding of how the reproduction, and experiences, of racism intersect with sexism, homophobia and ableism for example is also essential (Crenshaw, 1989; Hill Collins & Bilge, 2016; Lentin, 2020; Guinier, 2004). The identification, and unlearning, of racist beliefs, stereotypes and ideas is another key component of racial literacy. This commitment to identifying the connections between race and power, ongoing reflection, and consistent unlearning, is one of the more difficult aspects of developing racial literacy, particularly for those of us who are accustomed to being in the know and convinced of our good intentions and academic expertise.

Racisms operate by privileging whiteness and by engendering advantages and disadvantages related to it (Garner, 2017; Joseph, 2020a). However, all White people do not gain equal benefit from whiteness - as a set of cultural norms, assumptions, and practices - because other norms (such as those that position being settled as superior to being nomadic) are also operative in local contexts. For example, there is a long history of racism and discrimination experienced by the Irish Traveller community due to norms, laws and regulations established by the dominant settled majority, even though both communities are White and Irish. Other examples of groups regarded as 'not quite White' (Garner, 2017) would include Roma or Eastern European migrants in the Irish context. To properly address racisms, we need to 'see' how they operate to both disadvantage some people and, just as importantly, how they work to advantage other people. This involves not just learning 'who' we are (our positionalities) but rather also learning 'how things work' in various spaces (the connections between positionality and wider histories and structures). We need to reflect on whose voices are heard, which experiences are regarded as the norm, which experiences are rendered invisible or unimportant and why this is.

There is a need to focus on the historical contexts in which race and indeed racism are produced and reproduced (Lentin, 2020) to better comprehend the present but also to deconstruct some of the stock stories that prevail (Joseph, 2020b) such as the Irish cannot be racist because they were colonised. As noted above, racism in Ireland is not a new phenomenon but a complex issue. Ireland has been described as 'quintessentially "between two worlds" – both perpetrator and survivor of racism' (McVeigh & Lentin, 2002, p. 8). Ireland constituted Britain's first 'colony' and as such, the Irish were the first group to be racialised within British imperialism (Hall, 2000, p. 217). Historical examples of the racialisation of the Irish within British colonialism abound, such as the nineteenth century Cambridge historian Charles Kingsley's account of the Irish as white 'human chimpanzees' (Curtis, 1968, cited in Ní Shuinéar, 2002, p. 180). During the Irish experience of

emigration, 'No blacks no Irish' was the sign that symbolised discrimination faced at the hands of landlords in Britain. Notably, Irish emigrants to the United States were also initially racialised as 'Blacks inside out' (Roediger, 2002, p. 329). However, the Irish 'became white' in the United States (Ignatiev, 1995) by distancing themselves from Others, in particular from Black people (Garner, 2004, p. 112). 'White' is a dynamic as opposed to a static, fixed category and it was not always clear down through history on which side of the colour line the Irish were situated (Ignatiev, 1995, p. 111).

Like the historical complexity regarding racisms in the Irish context outlined above, is 'Ireland's ambiguous status as part-colonised and part-colonising' (Mac Einrí, 2006, p. 260). Ireland was exposed to colonial ideologies of western superiority that justified the suppression of Black people and the Irish participated in the British army, the colonial police forces and administrations, and the missions (Fanning, 2002, p. 13). Garner observes that whiteness as a norm was omitted from definitions of Irishness following the foundation of the Free State in 1922 as if such a characteristic were 'natural' and 'uncontested' (2004, p. 248). In the context of increased migration in the twenty first century, Lentin & McVeigh (2006, p. 37) argue that Irishness is purposively being associated with whiteness. The stories of young Black people experiencing racism and exclusion growing up in Ireland heard during 2020 and 2021 alluded to the connections made between Irishness and whiteness (see Osikoya & Ndahiro, 2020).

To develop racial literacy there is a need for the creation and facilitation of 'brave spaces' (Arao & Clemens, 2013, p. 141) wherein participants understand that they will experience discomfort, and they are willing to engage in critical thinking and listening to understand. Building a brave space takes time. It is important that participants respect each other's confidentiality and contribute to the space in the spirit of solidarity, support, and respect. The facilitator needs to be aware of the power dynamics both between them and the participants, and between participants themselves. In a classroom context, educators need to reflect on what contributes to existing power dynamics such as Eurocentric curricula, cultural norms, and local legislative provisions, institutional arrangements, and media narratives (Tatum, 2021; Brookfield & Hess, 2021).

Racism is learned (van Dijk, 2000) and higher education institutions offer an opportunity to host critical conversations amongst staff and within classrooms. The ongoing process of developing racial literacy involves building our knowledge of and capacity to challenge existing structures, and taking effective anti-racism action at the structural, institutional, and individual levels (Kendi, 2019; Sealey-Ruiz, 2021). As a call for action and social change this is very much in keeping with

the principles of CDYW where our programme aim is to produce graduates who are 'agents of change'. While we recognise the time it takes to incrementally develop racial literacy, the ultimate envisaged outcome is for students to take action regarding racism and racial inequities.

Storytelling

As Delgado (1989) notes, storytelling has both a community-building purpose – contributing to group cohesion, developing shared understandings and deeper ethics; and a destructive function – storytelling can demonstrate the cruelty of underlying dominant cultural assumptions, illustrate unjustified exclusion, and expose power dynamics.

Stories of the dominant group situate the ingroup in relation to outgroups and provide members with a shared reality in which their insulated position is often unmarked and unquestioned. They can have a community building purpose based on common culture and shared understandings, but they tend not to affect a destructive function in terms of subverting dominant norms. Storytelling by outgroups, called 'counterstories', enable the psychic self-preservation of outgroups and can function as a means through which they can lessen their subordination. As Delgado notes self-condemnation is a 'principal cause of the demoralization of marginalized groups' (1989, p. 2437). Storytelling by outgroups which transmit the facts of historic oppression, illustrating how peoples came to be oppressed and subjugated, can enable members to cease self-condemnation and promote group solidarity. In this way, it has a community building purpose. However, counterstories can also lessen the subordination of outgroups through their potential effects on the dominant group. As Delgado observes, most oppression 'does not seem like oppression to those perpetrating it' (1989, p. 2437). Power and privilege are justified by explanations that are favourable to the status quo. Counterstories can highlight how dominant beliefs upholding the status quo are ridiculous and/or cruel, illustrate the need to reallocate power, humanize the 'Other', destroy the complacency of the dominant group, and help build new collectivities based on richer and more nuanced understandings of 'how things are'. In this way counterstories can destroy but, very importantly, 'the destruction they produce must be voluntary, a type of willing death' (Delgado, 1989, p. 2438). Arguably these 'willing deaths' on the part of members of dominant groups must be built up to and undergone repeatedly.

One form of storytelling are life stories. Life stories can be a means of exploring identity, a way of understanding how our experiences are shaped by wider histories and structures, and they can provide the means to potentially reflect and learn from our experiences and those of others (Bowler

et. al., 2010; Fitzsimons, 2020). A Freirean (1972) pedagogical approach to life stories requires participants to engage in ways that are respectful, trusting and co-operative. In so doing, a space can be built where people tell their personal narratives and, over time, locate them, and the narratives of their interlocutors, within structures of subordination and domination, power and empowerment, developing a collective understanding of the need for social change (Ledwith, 2020).

Arguably, a degree of racial literacy on the part of all participants is necessary for counterstories to enact both their community building and destructive functions. In and of themselves, working or learning within a multicultural team and a positive orientation towards diversity on a personal level, does not necessarily lead to substantive intercultural engagements (Jackson, 2005; Fozdar & Volet, 2012). In practice, a positive orientation towards diversity without at least a degree of racial literacy can translate to only locating 'culture' as an attribute of minoritized groups i.e., failing to see the dominant culture as particular and not a universal unmarked norm. It can also be accompanied by an inability or unwillingness to 'see' or talk about how processes of racialisation (among other processes of discrimination) manifest in interactions (Fozdar & Volet, 2012). Underlying this 'color blindness' (Bonna Silva, 2014) is the desire or belief that, if we don't 'see' race or ethnicity, then racism, discrimination and harm will not or cannot occur. Yet, as discussed above, developing racial literacy involves 'seeing' race or ethnicity, understanding its histories, and addressing its ongoing impact. In the classroom context students who variously align with dominant identities must be able to locate themselves in a 'brave space', and be able to repeatedly identify, and willingly forsake, their underlying discriminatory assumptions (Delgado, 1989).

During our workshops, and reflecting on project feedback, we realised that to properly understand each of the dimensions of racism (historical, structural, institutional, and individual) we firstly need an understanding of our own positionality and secondly the tools to locate our positionalities in wider histories and structures. Storytelling is one the tools which can assist in this. White settled students and educators, namely, need to see dominant norms as historically and culturally particular, locate culture as an attribute of all of us, and understand how processes of racialisation manifest in everyday interactions.

Community Development and Youth Work

Community development and youth work in Ireland take place in increasingly diverse cultural contexts. This requires practitioners to have the skills, knowledge, and value base not only to work from an intercultural perspective (NYCI, 2018), but also to recognise the reality of racism, the impact of racism on both the individuals and the communities that they work with and feel empowered to respond to it. Anti-racism is very much in keeping with the values of upholding human rights, equality and anti-discrimination which are central to community development and youth work practice education and training (AIEB, 2016; NSETS, 2013).

Although a full dataset is not available, the CDYW student cohort in TU Dublin is much more diverse than the programme staff cohort which is currently all 'White Irish' or 'White Other'⁹. The CDYW programme is delivered on the Blanchardstown campus in Dublin 15. Blanchardstown is in the local government area of Fingal, which has the second highest number of migrant residents in the country. 37% of the population in Dublin 15 were recorded as non 'White Irish' in the 2016 census (CSO, 2016). While the student population on campus reflects the diversity of the local area, relevant data is only available across the student cohort in terms of nationality. Notwithstanding the incomplete dataset on student profiles in terms of ethnicity available up until now across Irish higher education institutions (RIA, 2020; Athena Swan Intersectionality WG, 2020; Ní Chonaill, 2021), the CDYW classrooms on the Blanchardstown campus remain predominantly white.

Methods

We adopted an action research methodology to evaluate the actions of the CDYW anti-racism project. Ethical approval was obtained from the Ethics Committee of the TU Dublin Blanchardstown campus. All data collection was conducted according to standard ethical protocols. A mixed method approach was selected, and data was collected using a combination of focus groups, surveys (evaluating pre-placement anti-racism workshops) and reflections (from lecturers and students in Year 2, 3 and 4) in the academic years 2020/21 and 2021/2022. An iterative plan of action has been adopted over the last two years with a constant cycle of reflection, planning, action, observation, and reflection to transform practice (Somekh 2005).

⁹ These categories are based on the Central Statistics Office (CSO) 2022 census categories.

Embedding Anti-Racism in the CDYW Programme

In Year 1 of this project (2020/21) we ran two staff workshops on anti-racism; mapped module content and lecturers committed to introducing at least one element focused on anti-racism in their modules. Pre-placement workshops were revised so that they better equipped Year 2 and 3 students with the skills to identify and constructively respond to racist incidents in placement settings. We also co-developed and ran three events with students (a conference, global class, and virtual learning exchange); and Year 3 students collectively developed an Anti-Racism Charter.

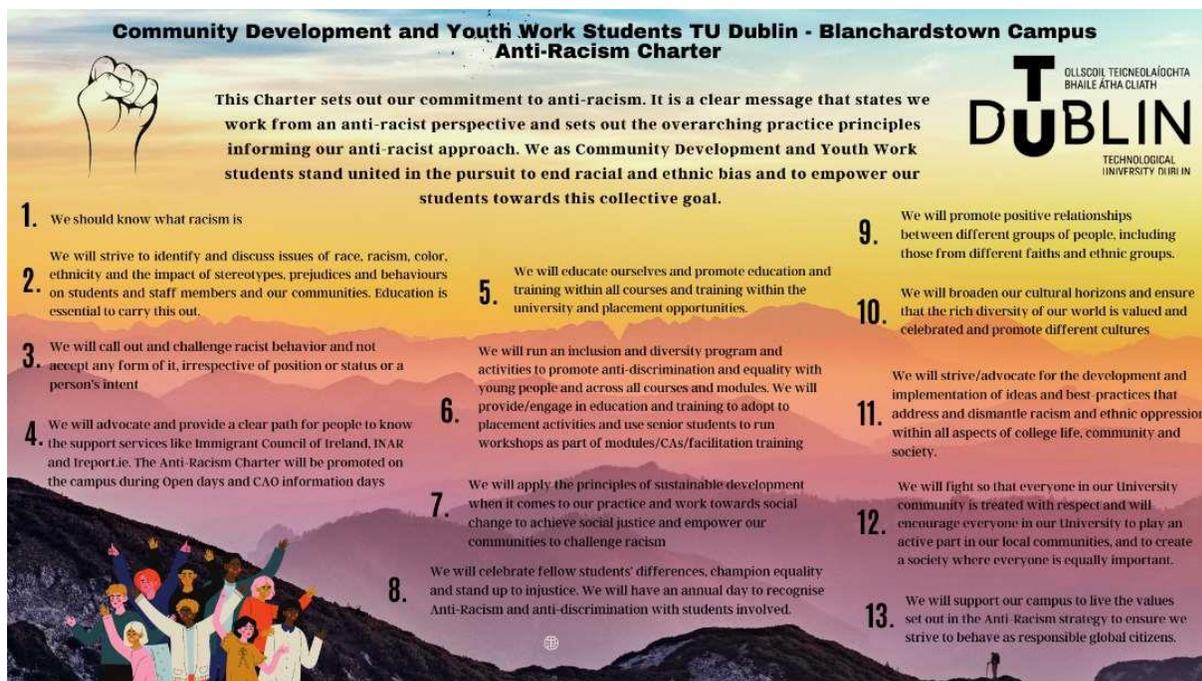


Figure 1. Anti-Racism Charter developed by Year 3 CDYW students in 2021

The CDYW programme team partnered with the EDI Directorate throughout the project, and we included the importance of advancing structural and institutional change throughout. Students in Year 3 and 4 of the programme developed and submitted responses to policy consultations on a national level (in terms of ending the system of international protection) and at institutional level (for the development of the TU Dublin Draft Action Plan for an Intercultural University with a focus on Race Equity).

As part of the pre-placement workshops [Léargas](#)¹⁰ delivered 'Amongst Others', a workshop designed to develop students' intercultural awareness and competencies. The Irish Network against Racism (INAR) delivered 'Understanding and Responding to Racism in College' a workshop designed to increase student understanding of forms of racism in Ireland, their prevalence and how to constructively respond to racism(s). Students reported greater understanding of what racism is and how to address it after the pre-placement workshops (Ní Chonaill et al, 2021).

I have had an idea of what racism was before I started doing this workshop, but I did not really know the reason 'why' people are being racist towards ethnic groups and minority. It was a good opportunity to do this kind of workshops as it provides ideas and understanding of their backgrounds and the story behind it. (Year 2, female student)

We conducted a focus group with Year 4 students to inform and evaluate our 2020/21 actions. Nine Year 4 students participated in a virtual focus group on March 2nd, 2021, via MS Teams. Student feedback identified a need for:

- Embedding of key concepts and theoretical frameworks from Year 1 through to Year 4 with knowledge and understanding built up incrementally throughout the programme.
- Equipping students with the language to discuss racism in constructive ways from Year 1 onward.
- Conscious acknowledgement that the classroom is not a 'safe space' given varying levels of power and privilege, and conscious building of 'brave spaces' from Year 1.
- Better supports for students who experience or witness racism on placement.
- Pairing of students from different cultural backgrounds.
- Facilitating anonymous feedback from students on programme structure and content.
- The need for all programmes across TU Dublin to develop student racial literacy.

Participants identified the need to support students who experience racism on placement, letting students know what to do if an issue arises, who to contact and what supports are there. P6 agreed speaking from personal experience:

¹⁰ Léargas manage international and national exchange programmes in education, youth and community work, and vocational education and training. For more information see www.leargas.ie.

.. And in the second year of my placement, like, I wouldn't feel so helpless, because I had an incident in my second-year placement of someone attacking, attacking me like verbally about my [...]. And, you know, I just, I was a bit shocked. I didn't know how to react and that would have been nice, and I don't know I said to the teacher whenever was my meeting. But that's it like, that was the only, only thing I could do, or I knew I could do. (P6, Year 4)

This feedback from Year 4 students was very much in line with existing research (Poole, 2019) and we decided on the development of an Anti-Racism Placement resource as a key priority for 2021/22 to build on the anti-racism work.

Lecturing staff during their workshops identified the question of language as a challenge and it also emerged as a key concern for participants in the focus group. As participant 7 outlined

“if we knew exactly what we can say and what's appropriate ... if you do have that knowledge and language behind you, you would of course you'd feel more comfortable I think approaching the issue if it did come up” (P7, Year 4)

Participant 1 highlighted the need to create an 'honest space':

“we all keep talking about an honest conversation... But it's just creating that honest space that people actually feel safe to share. Where in a lot of cases like this, like people don't feel safe enough to share what they think or what they've been brought up to believe or whatever it might be. I don't know how you're going to do that though” (P1).

Given how feedback from students has emphasised the need for language and supports from Year 1 onwards, our additional focus for 2022/23 will be on intentional scaffolding across the programme which facilitates 'repeated, robust and deep engagement with the concepts, vocabulary, skills and dispositions that will promote their racial literacy' (Rolón-Dow et al, 2020, p. 15). The space created in individual modules, workshops and programme level webinars has presented some opportunities to have critical conversations, but this requires far more coherent and systematic development.

Development of the Anti-Racism Placement Resource

Our focus in Year 2 of the project (2021/22) has been on the development of the [Community Development and Youth Work Anti-Racism Placement Resource](#) funded by the TU Dublin EDI

Directorate. The resource was developed in consultation with external stakeholders (the Irish Network against Racism and the Immigrant Council of Ireland), placement partners, and with CDYW students.

Section 1 of the resource explains key terms and concepts related to race, racialisation, and racisms, including the different levels at which racism operates, the different forms it takes and its impact. Section 2 focuses on developing students' capacity to challenge racism on an individual, institutional, and structural level and includes resources, activities and case studies to discuss responses to lived experiences of racism in practice settings. The final section outlines what CDYW students can do if they experience or witness racism on placement, including the process to follow and the supports available. The focus of this resource is on the practice placement as the site where students apply their theoretical learning to context specific situations.

Three pre-placement workshops for students in Year 2 and three for students in Year 3 were designed to accompany this resource. The three Year 2 workshops, each based on a particular section of the resource, were piloted by programme staff in January 2022. Student participants provided feedback via surveys and a group feedback session on which the staff involved then reflected. Year 4 students also reviewed and provided feedback on the resource content as part of their module on Combatting Racism. A workshop on supporting students experiencing racism and discrimination was delivered to placement and academic supervisors in January 2022, which included input from Valeria Aquino of the Immigrant Council of Ireland on their approach and an outline of the resource developed, particularly Section 3. A follow-on focus group session with placement partners has been organised for September 2022 to share and reflect on anti-racism learning to date.

Student feedback gathered included:

- The risk of information overload in the workshops as the content is emotive and complex.
- Students felt that more time was needed in the workshops to discuss the issues. Staff also felt that condensing a huge amount of learning in such a short space of time was problematic and more time was needed for discussions and reflections.
- Students identified the need for a debrief and check in not just at the end of the workshops but a follow up after particularly how emotive and personal the content is for students of colour/minoritized backgrounds.

- Students also highlighted the need for staff training to support students experiencing racism on placement (Year 4) and to facilitate anti-racism discussions and model best practice (Year 3).
- Mirroring the feedback from the Year 4 2020/21 focus group, Year 4 (2021/22) students felt anti-racism should feature 'earlier in the course' and suggested modules from Year 1 semester 1 (e.g., Introduction to Culture) where there could '*bring in more of a focus ... right from the start*'.
- Year 4 students made the point that we '*want students to be confident to identify racism and call it out*' but recognised that it '*takes time to build this*'; students, including those from minoritized backgrounds, need to '*grow strength and confidence*' which inevitably takes time.
- The need to centre voices and experiences of people from minoritized backgrounds in the resource and in the pre-placement, workshops was identified. Some students questioned the suitability of the all White lecturing team to deliver anti-racism workshops.

The Path to Transformative Teaching, Learning and Practice

Although we began the project with the conscious intention to equip ourselves (the project team), the wider programme team (CDYW) and students with a good understanding of how both dynamics of advantage and disadvantage operate and the ability to situate ourselves within those dynamics, we found that, in practice, participants focused primarily on the individual level, speaking about their fear of making mistakes and learning what '*we can say and what is appropriate*' for example. In their development of the Anti-Racism Charter (2021) the Year 3 students were encouraged to address the various dimensions of racism covered in the INAR workshop. However, the 13 principles remain largely focused on the individual dimension e.g., calling out racist incidents; individual learning of what racism is; appreciation of cultural diversity; promotion of human rights and respect for all, with a few references to broader dynamics. Students did develop relatively good understandings of the historical, structural and institutional dimensions of racism, but they did not necessarily translate these into substantive recognition of, and reflection on, their own positionalities, nor had we created the necessary learning and reflective spaces for this to happen. As participant 1 in the Year 4 (2020/21) focus group noted, it is difficult to create the conditions wherein people are able to share what they honestly think or believe. Although they framed it in terms of people feeling '*safe enough to share*' the key pre-condition is arguably

not safety as this impossible to provide, but rather a nuanced understanding of how individual positionalities connect to wider histories and structures.

Even within our own project team for example, when we first developed the activity in the Anti-Racism Placement resource (2021/22) which prompted students to reflect on how anti-Traveller racism manifests, our initial list of questions did not prompt students to reflect on their positionality as settled people, if applicable. This is indicative of how we ourselves are unused to self-identifying as settled people and reflecting on the implications of this, even though we had all become far more used to explicitly self-identifying as White people during Year 1 of the project.

That said the work during our first two years has moved us forward. For example, Year 1 students in one module (2021/22) were shown some pictures of young people in a socially disadvantaged part of Dublin and they were asked to associate words with the images of young people using a word cloud on Vevox. Upon completion of the exercise, they all saw that the most offensive K-word, used in relation to Travellers, came straight up as the biggest word in the word cloud. The lecturer immediately unshared the screen saying that they wanted to remind students they were in a professional space, that youth work is an anti-oppressive practice and that some language included was unacceptable. The lecturer went home and reflected on what they were going to do.

So I worked it into my tutorials which were the next day and I worked in ..ahm a discussion I suppose on the language I had seen but I started each tutorial by saying you know I want to say from the outset that I was personally offended by the language I saw in the word cloud ..ahm and I want to ask if anybody else was offended. So that opened a lot of conversations up with students. In fairness most of them said they were offended, a lot of them could see how language could exclude ...ahm especially seeing as a Traveller is actually on in the class, there is a Traveller young man in the class ehm.. and so, it did actually open up a lot of conversation so I felt from the work I'd done I could hold the conversation a little bit better than if I hadn't have done I suppose some of that ground work. So I suppose that's the unintentional impact ...ahm and so why I think it's valuable to have done that little bit of work [reference to how the lecturer had embedded anti-racism in a Year 1 module in 2020/2021] ..ah for when it comes up in other ways and other spheres.

The lecturer here can be seen to be building students' racial literacy by meeting them where they are and directly addressing how processes of racialisation manifested in a classroom activity. After reflecting on their own initial response to the incident (unsharing the screen and declaring the language unacceptable) the lecturer used their tutorials to consciously open up a conversation. They clearly stated how they themselves felt and asked students a question – was I the only one who was offended? This opened up a conversation with the students and enabled them to connect

their own views and the positionality of Travellers in Irish society to wider norms, histories and structures. Describing how they were '*fearful of the topic*' in 2020/21 prior to explicitly introducing anti-racism as a topic in the Irish Culture and Society module, the lecture commented on the '*ripple effect in their confidence dealing with the issue*' and facilitating a conversation in the tutorial on how language is dehumanising and excludes. The use of language was explicitly linked to the values and practice of youth work and shared as an example of how social exclusion is not just an abstract concept but operates on a day-to-day level with language as something that can push somebody out.

Race and ethnicity are often viewed in relation to the Other (Knowles & Lander, 2011, p. 59) and it is commonplace for White students and educators to think that race and racism do not impact them (Rolón-Dow et al 2020, p. 243) and that being White (or settled) does not constitute a racial or ethnic identity (Brown McNair et al 2020, p. 39). When asked to describe themselves students do not usually include descriptors that identify them as members of the dominant or advantaged social group e.g., male, White, and/or nondisabled (Tatum, 2021, Rolón-Dow et al, 2020). It is not just a question of identifying and understanding our positionalities as evolving and constructed in relation to both dominant and marginalised identities though. A key barrier to effective anti-racism work is the inability to connect individual positionalities to the histories of, and power attached to, dominant identities or social groups (Brookfield & Hess, 2021). Based on our 2020/21 and our 2021/22 experiences, one of our key lessons learned was the need to increase the racial literacy of educators (and students) and develop their reflective practice on anti-racism with a particular emphasis on understanding how whiteness functions (Ní Chonaill et al, 2022)¹¹.

At present we are focused on the first two steps – developing understandings of individual positionality (individual level) and connecting positionalities to the power attached to systemically advantaged social groups, and the impact of being a member of or aligned with a systemically disadvantaged social group (historical, structural and institutional levels). The Anti-Placement Resource activities consistently require students to reflect on their own positionalities across both dominant and marginalised identities and to connect those to wider dynamics of advantage and disadvantage. We are also developing a more structured approach to introducing key activities, concepts, and theoretical frameworks, which incrementally build student knowledge and confidence on how to identify and constructively address racism throughout the programme. Part

¹¹ Arguably we then also need to develop deeper understandings of how these norm/Other binaries were created, are sustained, and how we can dismantle those binaries, yet this is beyond the scope of this project at present (Dabiri, 2020).

of this is supporting first year students to present their life-story or personal biography as an initial means of community building and introduction to 'seeing' dominant and marginalised identities.

Adapting Life-Stories

As part of the CDYW programme development it was agreed to design an intensive induction week for the first-year students on a pilot basis during the 2018-2019 academic year. This continued into the 2019-2020 academic year. The aim of this week was twofold. Firstly, to provide an overview of community development and youth work to the students through interactive workshops, fieldwork visits and group discussion. Secondly, to foster a sense of identity, solidarity and support within the group through icebreakers and getting to know you sessions. The week concluded with each student presenting their own 'Life Story' to the group.

Table 1: Steps to Prepare Students to Present Their Life-Stories

Action	Purpose	Activities
Introduction to Programme	Orientation Introduction to CDYW Introduction to Professional Values	Interactive Workshops Visits to CD and YW organisations
Developing a Group Identity	Develop a Sense of Group Solidarity Group work skills and processes	Ice breakers Getting to know you activities Developing group contracts
Sharing Personal Narratives through Life Stories	Beginning the process of exploring our own positionality and power Reflect on how we hear and interpret the stories of others	Students present their life story / personal narrative to their class

From 2018 onward students were introduced to this approach at the beginning of the CDYW induction week. It was explained to students how this approach aligns with the values of the CDYW programme and aimed to provide opportunities for year one students to learn about the diversity of experience within their class group. For the purposes of this exercise, we invited students to enter into the principles of a 'brave space' (Arao & Clemens, 2013, p. 141) whereby in the telling of their story students may feel vulnerable and visible. We also set out ground rules for participants

regarding confidentiality, only sharing as much as they felt comfortable with and coming to the exercise in the spirit of solidarity, support, and respect. We communicated that each story is unique, and students were invited to be creative in how they told their story highlighting significant events, people, and chronology.

The pilot cohorts of students in 2018 and again in 2019 evaluated their experiences of welcome week. The feedback was extremely positive with students stating:

'I learned a lot about my peers and feel connected to some of them as they've experienced things that I have.'

'I enjoyed getting to know my classmates. I feel like as a group we are all a lot closer now.'

'Really enjoyed it, it pushed us to share and explore time, emotion, history and all was in a positive way.'

Based on the evaluation of the two pilot initiatives and feedback from staff, this 'welcome week' has been embedded formally within a first-year module titled Personal and Professional Communication in CDYW. This change took place in the 2020/2021 academic year.

The first outcome of the telling life stories activity in week 1 is to acknowledge and welcome the diversity of voices and experiences within the class group, which illustrates the multidimensional and intersectional nature of identity (Hill Collins & Bilge, 2016; Hall, 2000). Echoing Ledwith's view that 'stories are at the heart of social change' (2020, p. 98) we maintain that the telling of stories can begin the process of dialogue. Within a Freirean pedagogical approach (Freire, 1972) we create a space for people to build trust, tell and hear their personal narratives in a respectful and co-operative fashion and to locate them within structures of subordination and domination, power and empowerment. Stevenson (2014) acknowledges the therapeutic role of racial storytelling and indeed the act of telling a story in itself can be an empowering experience, particularly for those voices seldom heard (Joseph, 2020b). Another goal of telling life stories is to foster a sense of solidarity and cohesion within the class group whereby the 'deeply personal' can be built on in due course to become 'profoundly political' (Ledwith, 2020, p. 99) as students make connections first of all and then, over time, develop competencies to take action to bring about social change. However, the extent to which the telling of life stories has been used as a preparatory exercise, in advance of work on positionality and power throughout the whole programme, has been limited to date. We have now decided to use the life stories in week 1 as the starting point for further work on positionality and power. The only objective for the initial life stories is that they contain, to the

degree with which the students are comfortable, key moments and events which have shaped their personal and social identities.

Telling their life stories paves the way for then starting to analyse and reflect on where students sit in terms of the wheel of power and privilege i.e., near the centre of power/privilege or closer to the edges (more marginalised) in terms of the various facets of their social identities (see also the Social Identity Wheel exercise (American Associate of University Women, nd). As a follow-on activity in the Personal and Professional Communication module, students can collectively identify the dominant social identities on the outer circle. They then individually fill in the inner circle in terms of their own positionality with regard to 'race', ethnicity, nationality, sexuality, social class, gender, ability and reflect on where they are members of groups that are 'systematically advantaged' or dominant and often at the same time may belong to a group that is marginalized or subordinated. This constitutes a start in terms of analysis around associated power and privilege which impacts professional practice but also in terms of the development of racial literacy centers race in the context of an intersectional approach (Crenshaw, 1989) which acknowledges the multidimensional nature of identities and how racism intersects with other systems of oppression (Guinier, 2004; Lentin, 2020).

Having presented their life stories in week 1 Year 1 and filled in a wheel of power subsequently in Year 1 modules, students will then build on these incrementally throughout the programme, gradually connecting their own stories and those of their peers to wider histories and structures such that they learn 'why' dominant social identities are dominant and how to constructively address the impact of this in their professional practice. In this way we aim to build their capacity to listen to counterstories, work to understand them and willingly endure the 'destructions' (Delgado, 1989) they may produce including building a sense of solidarity based on a more nuanced understanding of 'how things are'. The Anti-Racism Placement resource activities also prompt students to reflect on their own positionalities across both dominant and marginalised identities and to connect those to wider histories and structures. Based on our learning from this year's pilot, we have moved some of the content and activities to other modules, focusing primarily on remapping the first-year modules to develop the anti-racism thread coherently and incrementally throughout so that students can 'develop a deeper understanding and discourse that can propel them to action' (Sealey-Ruiz, 2021), which is our ultimate aim.

Conclusion

During the first two years of this project, we have worked to equip ourselves and students with the conceptual and theoretical frameworks necessary for understanding what racism is, how it manifests and how it connects and intersects with wider dynamics of advantage and disadvantage. However, we have realised that without a clear and increasingly complexified understanding of their own positionalities and that of others, students find it difficult to link their own views with wider histories and structures, and students from dominant groups are unlikely to self-identify with advantaged social groups e.g., male, White, and/or nondisabled. If they do self-identify as White or settled for example, they tend to remain at the individual level and focus on the guilt a sense of individual privilege can prompt. However, remaining focused on guilt is counterproductive to initiating and working for the transformation of norms, systems and structures.

Developing racial literacy involves both learning about what racism is – its historical, structural, institutional and individual dimensions – and unlearning racist beliefs, stereotypes and ideas. The unlearning and discomfort which are part of that process, is particularly difficult. We argue that this process does not require a sense of safety for this is impossible to provide. Rather it involves building brave spaces. We need to build the conditions across the programme whereby students are open to undergoing the ‘destructions’ counterstories may produce. For storytelling to have a transformative effect i.e. to build collectivities based on richer and more nuanced understandings of ‘how things are’ (community building), and to attack complacency, highlighting the ridiculous and/or cruel nature of the status quo (destructive function) members of the dominant group must in some senses ‘agree’ to ‘listen to understand’ – the destruction produced ‘must be voluntary’ (Delgado, 1989, p. 2438). A core task of educators in our view is to build spaces within which students are willing to endure discomfort, understand the complexity of our local and global histories and structures, not get stuck at the individual level with feelings of guilt or helplessness and instead be motivated to do the work necessary for social transformation. Building students’ understanding of their own positionality and that of others, and how they link to wider histories and structures takes time and patience, it requires intentional scaffolding and constant learning and unlearning on the part of educators themselves.

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The seminar as a site of critical pedagogy: Progressing equity, diversity, and inclusion across EUt+

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ABSTRACT

A concern for inclusivity has become a strategic planning of higher education institutions throughout Europe. The purpose of this A key mechanism through which this concern for inclusivity can be realised is through an approach to processes of curriculum design and teaching practice that are informed by the core commitments of critical pedagogy. The purpose of this paper is to reflect on the extent to which seminars organised around the themes of inclusivity successfully enacted a critical pedagogical approach in each of our respective contexts. Our paper reflects on our experiences organising and engaging in these seminars with the view to offering 'lessons learned' for future seminars within EUt+.

Keywords

Seminars; equity, diversity, and inclusion; critical pedagogy; EUt+

The seminar as a site of critical pedagogy: Progressing equity, diversity, and inclusion across EUt+

Introduction

A concern for inclusivity has become part of the strategic planning of higher education institutions throughout Europe. Indeed, the EUA's recent vision for higher education in Europe in the coming decades states that:

Diversity and social cohesion are important components of sustainable development. Universities will provide a scientific mindset and opportunities to people from different backgrounds and reflect the diversity of society. Access to higher education will be equitable and open to all who qualify. Universities will be equipped to welcome students and staff from all backgrounds. Through this, universities will play an important role in addressing social disparities that have been exacerbated by the COVID-19 pandemic and the ensuing economic crisis. This will be a crucial element in Europe's recovery. Universities and their missions will widely benefit from equity and inclusion, and it is therefore in their core interest to promote these values in society. (European University Association, 2021)

A key mechanism through which this concern for inclusivity can be realised is through an approach to processes of curriculum design and teaching practice that are informed by the core commitments of critical pedagogy. The purpose of this paper is to reflect on the extent to which seminars organised around the themes of inclusivity successfully enacted a critical pedagogical approach in each of our respective contexts. Our paper reflects on our experiences organising and engaging in these seminars with the view to offering 'lessons learned' for future seminars within EUt+. But first, we delineate some brief notes on critical pedagogies themselves.

Critical Pedagogies

Critical pedagogies begin from the assumption that teaching is never neutral or value-free, but is instead necessarily implicated in processes of knowledge production and exchange that (historically to the present day) reinforce systems of power and privilege across interconnecting categories of gender, race, ethnicity, ability, sexuality, socioeconomic class, etc. (Giroux, 2016). Beginning from this assumption, critical pedagogies are committed to offering educational experiences where students can solve social problems (e.g., inequality and exclusion), but can also critically pose further problems of society too in ways that enable the most marginalised to 'name' their world (Freire, 2005). In this sense, critical pedagogies problem-pose, as well as problem-solve, in order to create the conditions for students to resist systems of power and privilege.

In order to achieve this, critical pedagogical approaches prioritise dialogical educational spaces, where students can engage in democratic forms of conversation and collaboration (Fernandez-Balboa and Marshall, 1997). This entails challenging conventional, authoritarian views of teaching (what Paulo Freire refers to as 'banking' approaches to teaching) and replacing these with pedagogies that prioritise the articulation and mobilisation of student voice. On the level of curriculum design, a critical pedagogy can involve designing educational experiences in a co-constructed manner, where students play an active role in developing not only how they learn, but also what they learn. This is done to democratize curricular content and transgress the boundaries of oppressive knowledge across multiple disciplines (hooks, 1994). Finally, critical pedagogical approaches to teaching resist positioning education in a vacuum, and alternatively see teaching as a practice that extends beyond the immediate confines of the classroom to encompass the wider structural forms of exclusion (for staff and students) that characterize educational institutions. In this way, critical pedagogies require holistic responses to inequity that account for the local, national, and international ways in which structural exclusions persist.

[To what extent did our seminars enact a critical pedagogy? Considerations on content and participation](#)

In considering the extent to which seminars organised around the themes of inclusivity successfully enacted a critical pedagogical approach across institutions in EUt+ we focused on two issues specifically: the content of our seminars, and the nature of the participation at these

seminars. The paper arises out of ongoing reflexive, dialogical work between the authors in the context of EUt+. This dialogical work has taken place in oral as well as written form, where the authors have engaged in writing as a mode of collaborative inquiry (Speedy and Whyatt, 2014). We share our reflections below from the vantage point of our institutional contexts.

Seán's reflections from Technological University Dublin

In reflecting on my own experiences organising and participating in the 2021-2022 RINCE seminar series at TU Dublin, I focus on its content and on participation as a way of exploring the extent to which it enacted a critical pedagogy.

In terms of content, much of the series spoke well to critical pedagogy's commitment to providing opportunities for people to engage with 'problem-posing' material that would allow them to query the structural nature of inequality and injustice. The series was focused on extending the concept of intersectionality in new directions, and it did so through invited speakers and discussants giving online presentations on: disability and workplace culture; affective inequalities and theories of justice; antiracist and feminist approaches to climate leadership; intersectional methods in educational research; the gendered impacts of Covid-19 lockdowns; and feminist epistemologies in science. Each of the speakers and discussants shared a core academic commitment to structural change, mobilising literature and ideas to resist inequitable systems of power and privilege.

In terms of participation, however, the series may not have been as critically pedagogical as I might have liked. For example, early on in the series I received feedback from a member of the TU Dublin community who felt that the timing of the seminars (5.30pm) was potentially exclusionary to members of staff with caring responsibilities, particularly women. Though I then changed the timing to 2pm in response to this, some early career academics with heavy teaching duties then contacted me saying they couldn't make any of the sessions because of their timetables. While attendance was good in the series overall (averaging in the region of 20 participants per seminar), I was conscious that this key and interested demographic were absent from our conversations. I also received some criticism from a member of Dublin's deaf community, who couldn't attend the seminar on disability that she was interested in because I had not

organised a sign language interpreter for the event (an ironic example of ableism). While I had hoped to remedy this by offering closed caption subtitles, she said that reading these captions during online seminars was tiring for members of the deaf community, and that she would not attend as a result. Again, a key demographic excluded from the conversation. Finally, feedback on the seminar praised a session that had a lot of participant interaction (namely the seminar on intersectional research methods), though most of the other seminars were more traditional, with speaker input, discussant input, and short Q&A. In this model, opportunities for participants to pose questions at length was limited, and they certainly did not shape the planning or content of the seminars in any meaningful sense. In this model, the power imbalance between those who organised the seminars (myself) and those who participated or wanted to participate in them remained largely unchallenged.

In summary, the RINCE seminar series at TU Dublin was ambiguous in its enactment of a critical pedagogy. It made significant strides in this regard in terms of content, but how that content was designed and engaged with by participants still needed a more coherent engagement with critical pedagogical principles, particularly in terms of redistributing power.

Eleni's reflections from Cyprus University of Technology

At CUT we have organised a series of two face-to-face workshops addressed to students and staff members respectively - academic and administrative. An invited trainer from the Pedagogical Institute of Cyprus facilitated the workshops who has experience on the topics of Equality and Education. The topic was 'Dealing with Multiple Racisms and Discriminations'. It was agreed that for the moment we would assume that the audience had never encountered the term of Intersectionality, and thus, to consider those sessions as introductory ones in order to build on them in the future. Both workshops had similar structure and type of activities aligned to the concept of critical pedagogy.

Reflecting on the content, I strongly believe that the fact that workshops have been experiential ensured their alignment with critical pedagogy. Firstly, the workshop was navigated by the subjective experiences and knowledge of the participants. What has been really effective was the interchange of personal to the collective aspect shaping what Freire would say as contextualization where firstly, it is important to realise your own reality – in this case, participants could realise their own embedded stereotypes, assumptions, prejudices; and secondly, it is

important to name this reality in order to reflect on it and decide changes and next steps in order to change it – in this case, participants through activities have been able to experience ‘aha’ moments realising and identifying stereotypical thinking as well as privileges and disadvantages that they may experience and how their own behaviours and how these may have impact on others in society. At this point, dialogue has been an important tool to navigate critical reflections and allow diverse views, knowledge and experiences to be heard and valued, and their perspectives were respected, however different or contradictory may they were between them. The facilitator created a dialogical, democratic, open space, participants would share their own experiences, reflect on them and learn together with the educator-trainer.

What has been another important fact was that activities have followed problem-posing approach to learning, where the understanding of a term or theory was based on a gradual step-by-step process from the personal experience and arriving into understanding of the term/theory; also, based on the interchange of theory and interaction through small activities that kept increased interest and engagement of participants. One cycle of activities would begin with sharing our own ‘three identities’ through an online quiz using our mobile phones, to initiate a discussion on our diverse identities. Then moving to a ‘test’ – a questionnaire based on a given story, through which we were able to realise our stereotypical way of thinking and making assumptions about gender roles, followed by a video on the impact of reproducing stereotypes to kids, to finish with the term stereotype. This interchange from the personal to the impact on others, using interactive methods in order to arrive at theory, I consider it successful, depicted on their written and verbal feedback at that time.

Reflecting on participation, it has been a puzzling issue especially for the staff members and the best that could fit their schedule and achieve the highest participation possible. Therefore, we organised the workshop during working hours, and on lunch time, offering also a small lunch as an extra incentive. But although we were expecting around 35 participants – a sign that the time slot was convenient – in the end, less than half managed to come. In terms of students, for this time we decided it was better to agree with an academic staff member to use one of her teaching sessions, although the invitation was open to all students of the university, which proved a success as we had 38 participants in the venue. However, in both cases we didn’t achieve a balanced participation in terms of gender, with males being only 2-3 overall.

However challenging it may have been to achieve balanced, diverse and rich participation, feedback from both workshops was only positive and reflects the need for such discussions, which is a priority for the next academic year’s planning. On the question what did you like the most and

what did you like the least, student participants mentioned different activities that made them an impression, highlighting that they were interactive and playful, and they liked the fact that they could discuss and that they had realisations they wouldn't otherwise be able to identify -such as stereotypes- as well as that they like that it kept their interest increased until the end. Staff participants said that the workshop helped them understand terms and they liked the topic, while they want this to be repeated.

To conclude, this series of workshops proved to be effective enacting critical pedagogy with an interesting content design and learning methods. However, it remains a challenge to create consistency and awareness to the level that participation will be balanced.

Aurelia's reflections from Technical University of Cluj-Napoca

Two online seminars on "Widening Access and Participation through Universal Design for Learning" were conducted, between March – April 2022, within the Technical of Cluj-Napoca, Romania, an engineering HEI with a population of over 19000 students and 900 higher education teachers. The instructional design of both sessions addressed a practice-sharing approach, based on real-life scenarios, with the scope of identifying interest that may foster the development of an institutional Community of Practice among educators, to promote practices, policies and tools that foster an equitable environment for education.

Key topics were addressed incrementally, from theoretical terminology to a practical examples, covering a multidisciplinary background in both humanities and engineering and enacting critical content. Topics addressed during the 1st seminar provided the context and the general terminology, specifically: Equity and equality in higher education; Introduction and principles of UDL; while the 2nd seminar focused on; UDL from an ecosystem perspective; Practice sharing over technological prototypes that foster AWP; Key actions and means in applying UDL from a pedagogical perspective, demonstrating the positive outcomes of using cross-field cooperation in creative problem-solving of use cases present among underrepresented groups, such as students or pupils with disabilities.

The target group consisted of teachers, educators and staff with activities related to teaching-learning processes, where participation was voluntary. 27 participants (77.7% - F; 22.3% - M) attended the two sessions, while 29,6% participated in both. Feedback was collected at the end of each session, following 3 dimensions: content, session and impact that would drive intention. Most of the testimonials highlighted a well-organized session, that enabled reflection over quality inclusive teaching: "I appreciated the quality of the organization, of the session itself and of the content"; "nothing to improve"; "nothing to improve at the moment. I find the topic highly interesting and solutions should be found to integrate these concepts into daily practice, and not to remain at a pure theoretical level", "looking forward to getting more information on these practices that improve the quality of teaching".

Aspects to be improved were related solely to organizational matters, where 2 participants highlighted the need of receiving the seminar agenda well before the session. Reflections that followed highlighted some key pieces of learning by the end of both sessions: The benefits of online sessions in facilitating participation and a more informal environment for people to explore ideas (positives), though this was balanced by the difficulties of facilitating meaningful engagements online (a negative); The benefits of online sessions in facilitating synchronous resource sharing (a positive); The value of pedagogy as a key development pillar in teaching activities under technical domains (a positive) and the need for advancing a context that facilitates quality training (a negative); The value of seminars for assessing the extent to which critical content can be engaged in the context of the Technical University of Cluj-Napoca.

Yoana and Rositsa's reflections from Technical University Sophia

We at the Technical University of Sofia have organized two series of online seminars among students from different engineering specialties. The total number of students who participated was 60 aged 19-25, with an almost equal number of boys and girls.

The topics that were selected for the seminars aimed to introduce students to the ideas of equality, and diversity. The focus in the preparations of the seminars was on the selection of topics and their appropriate presentation. The aim was to provoke students to be active participants in the seminars. After discussion with the lecturers, it was decided that the seminar topics would be: History of the women's empowerment movement; Feminist theories and approaches; Gender, equality, and diversity policies and practices; Behaviour and generational differences.

The duration of the seminars was two hours each. The lecturers used a multidisciplinary approach to present the information. Students were challenged with different visuals and examples to discuss the different issues. Existing stereotypes and attitudes were analysed and conclusions were drawn based on scientific literature and research.

The success of the workshops can be judged from the feedback made: "very interesting topics"; "we learn very useful things"; "Will you organize another seminar?".

Interestingly, no dissatisfaction, objection, or outrage was expressed. We take the absence of such to be a sign of a meritocratic presentation of provocative and often stereotyped topics and issues. The positive thing about the workshops for us is the participation of the students and their engagement with the themes of equality and diversity. The use of the method of critical pedagogy showed in which direction it is desirable to develop and enrich the curricula and the teaching methods themselves. The possibility of reflecting on different societal dilemmas is one of the fundamental missions of higher education.

In the conduct of the workshops, the difficulties we encountered were a consequence of the Covid-19 pandemic and the resulting restrictions. Online communication poses corresponding barriers to having a meaningful discussion and engaging all participants in the process of demythologizing existing social constructs of thinking. In conclusion, it can be said that the use of critical pedagogy in the conducted workshops is necessary for the active involvement of students in the construction of content, solutions, and concepts on the topics of equality and diversity.

Conclusion

In concluding this paper, we home in on key insights gained through the process of reflecting on the critical pedagogical potential of each of our respective seminars, with the view to offering concrete advice for future seminars organised across EUt+.

Firstly, reflecting on our narratives foregrounded to us the importance of curating opportunities for the content of our seminar and the nature of seminar participation to speak to each other. Indeed, for critical pedagogues, what matters is not only *what* is explored in pedagogical spaces, but also how it is explored: given the limits of online interfaces, we felt some of our seminars lacked the degree of dialogical participation one would expect of critical pedagogical work, even if the content being explored was committed to tackling structural exclusions and achieving equity and inclusion.

Building on the question of participation, through the experiences at CUT, it seems that experiential learning as an approach to deconstructing embedded structures of thought and achieving desired levels of mindset transformation is very much needed. Also, it seems to be more effective when adult learning is designed for physical settings. Combining these elements can ensure participant-centered learning, where (to use Freire's phrasing) participants can 'name' their world, feel confident and comfortable articulating and critiquing personal experiences, and discuss and analyse stereotypes and other social inequities. There is also a need to ensure decisions around the timing and location of seminars are made in ways that maximise participation for diverse cohorts so that a variety of epistemic positions can be shared and engaged with.

However, in order to achieve this rich and diverse form of participation and engagement (especially with staff members) there is a need to build a culture of continuous learning across our contexts beyond discrete seminars themselves.

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INCLUSION VR. A NEW VIRTUAL REALITY DEVICE FOR INCLUSIVE EXPERIENCES

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INTRODUCTION

There are many public and private spaces and environments where design characteristics are a severe impediment to accessibility for people with reduced mobility. Traditional measurements of accessibility are flawed, as they fail to account for people's mobility and physical differences. Structural barriers and individual mobility limitations that affect travel time, effort, and even successful completion are ignored. An accessibility measurement framework including measures of absolute, gross, closest assignment, single and multiple activity, probabilistic choice, and relative access has been proposed to address this problem [1].

Unfortunately, in most cases, people with reduced mobility are forced to renounce access to public and private spaces. Although the best solution would obviously be to make these places universally accessible, there are some sites where it is very difficult to make architectural changes without altering their identity. Cultural heritage sites are a good example of places where architectural changes are not feasible. This is especially problematic in the case of monuments and archaeological sites, as many of them are not prepared to receive these types of visitors.

The European Union considers cultural heritage as a means of achieving social integration [2]. Among its current challenges, the EU is promoting multidisciplinary initiatives that combine expertise in cultural heritage with the resources provided by technology. From another perspective, the use of virtual reality to evaluate and train inexperienced wheelchair users has been proposed [3].

People with motor disabilities can benefit from these types of actions. In situations where the value of a site must be preserved, and the needs of people with limited mobility must be taken into

account, building a digital twin of the space can be a way to experience/visit the site through virtual reality.

However, to achieve a satisfactory immersive virtual experience, the user must be sensorily involved. There is no point in creating a twin if the visitor is not as involved as those experiencing the real space.

The technical solutions for creating simulators for wheelchairs are very sophisticated and are usually expensive, cumbersome, and with an unattractive accessibility mode for wheelchair users [5]. For this reason, the UPCT's Industrial Design and Scientific Calculation Service has developed a low-cost virtual reality device based on their experience developing devices for virtual reality scenarios [5]. It consists of a platform allowing a person with a mobility disability to visit a cultural heritage site using a wheelchair while another person physically visits the site. Both can have similar, simultaneous experiences and can even communicate in a mixed reality environment.

This new platform emphasizes the user's ability to make their own decisions in a purely immersive environment. The objective of the work is to achieve a sensory and physical experience identical to that experienced by a person visiting the real physical space. People with motor disabilities would be able to visit the site without the assistance of third parties.

Commitment to the university community. People are the institution's most valuable resource. We must therefore respect their rights and support their duties and capabilities. To achieve these objectives, it is essential to improve employees' working conditions, take care of their health and safety, and offer them the possibility to expand their social and economic objectives. The Equality Committee also aims to ensure effective equality between women and men to create a more democratic, balanced, egalitarian, and tolerant university. University integration is one of the fundamental pillars of our commitment to our students. Their personal and professional training helps guarantee our future, and we must support those with special needs. It is necessary to guide students, facilitating their full integration and developing their training under the principle of social responsibility.

Commitment to inclusion. The university must develop instruments and action plans to satisfy the economic, social, and environmental needs of the present without compromising the fulfillment of these needs for future generations.

MATERIALS AND METHODS

Wheelchair driving simulator

Virtual wheelchair design

The wheelchair model selected for the driving simulation was a manual wheelchair instead of an electric one because most people with motor disabilities use manual wheelchairs. When designing the platform, we considered the technical characteristics of the wheelchairs available on the market. Anyone who wants to use the platform should be able to do so using their own wheelchair. The main characteristics determining the platform design were the weight and dimensions of the wheelchair. Steel wheelchairs weigh more than 15 kg, while those made of aluminum or steel alloys weigh around 13-16 kg. Ultralight wheelchairs weigh between 6 and 14 kg. Since we wanted the platform to be universally usable, we made it compatible with wheelchair weights of between 5 and 20 kg. Although wheelchair dimensions vary from one model to another, the measurements of a standard wheelchair are the following: Total height: between 89 and 105 cm. Total length: between 100 and 120 cm. Total width: between 50 and 70 cm (depending on the size of the user). Table 1 shows the ranges of these wheelchair characteristics.

Table 1. Ranges of wheelchair characteristics

Variable	Minimum	Maximum
Weight (kg)	6	14
Height (cm)	89	105
Length (cm)	100	120
Width (cm)	50	70

A three-dimensional wheelchair design was executed with Solidworks2014 (Waltham, Massachusetts, USA). The key components of the wheelchair were modeled, assembled, and parameterized according to the established technical specifications (Table 1). Finally, texture and rendering were applied for a more realistic appearance. The next step was to calculate the physical properties (mass, center of gravity, and moment of inertia) to ensure the model's realistic behavior. This process was carried out for the key wheelchair components, such as tires, axes, or chair. Special attention was paid to the wheelchair's capacity to turn each wheel in the opposite direction for faster and more effective turns.

Virtual scenario design

The stage was created from the site of the Punic Wall in Cartagena (Spain), which was turned into a museum 20 years ago. The strata of the site's different chronological stages, from the 3rd century B.C., when the Punic Wall was built, to the 18th century, when the funerary buildings were added, are on display. An oval-shaped funerary crypt housing several dozen tombs is a featured in this 18th century addition [6]. Figures 1 to 5 show images of the museum's most relevant spaces.

They have been chosen either for their historical importance or because they present barriers to people with motor disabilities.



Figure 1. Ticket sales and shop area of the Punic Wall

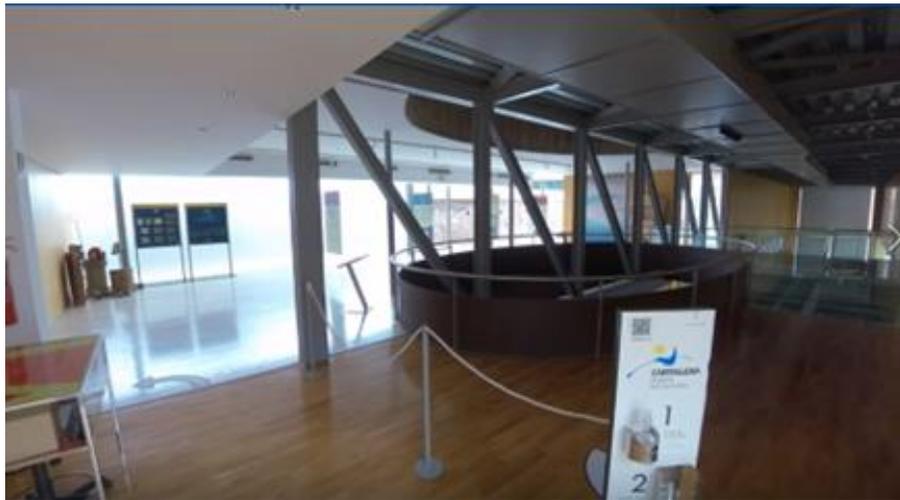


Figure 2. Hall



Figure 3. Crypt seen from above



Figure 4. Punic Wall



Figure 5. Detail of the stairs to the crypt



Figure 6. Detail of the tombs inside the crypt

The scenario was created using images taken with a high-resolution reflex camera using Agisoft photogrammetry software, combined with 3D scanning using a new generation 3D scanner with structured light technology (Artec EVA) capable of capturing points at high speed while maintaining good resolution. The information from the scanning and photogrammetry was combined to make the digital twin of the visitable space.

The software package used to create the virtual reality system was Unity 5 (Unity Technologies, San Francisco, CA, USA). The version of Unity used to develop the scene design included basic features, a powerful physics engine by NVIDIA PhysX, 3D audio, and the possibility of more than one user interacting with the scenario.

For a person with motor disabilities, accessing this site is very frustrating since the museum layout prevents access from the start.

RESULTS AND DISCUSSION

Wheelchair driving simulator

We had to create a virtual reality device capable of accommodating a wide variety of wheelchairs. It was necessary to develop a virtual reality wheelchair platform that allowed freedom of movement on its surface. The platform we designed can turn 360° , turn using only one wheel, turn quickly using both wheels in opposite directions, and move forward or backward using both wheels simultaneously in the same direction, as well as provide resistance to simulate the virtual slope of the terrain. Movement can be controlled in two ways: (a) by the platform users themselves or (b) using a previously configured program in the computer system.

The user accesses and drives the wheelchair connected to the simulator autonomously by fixing the wheelchair to the platform, which is supported on rollers. These are the interface with the software. If the user moves the wheels, the rollers also move and transmit this movement to the computer. If the user is in an area with a slope, it is the computer that sends the order to the rollers to move, and the user feels that movement as in real life. Figure 7 shows the designed solution, consisting of a virtual reality platform for wheelchairs powered by electric motors and three encoders.

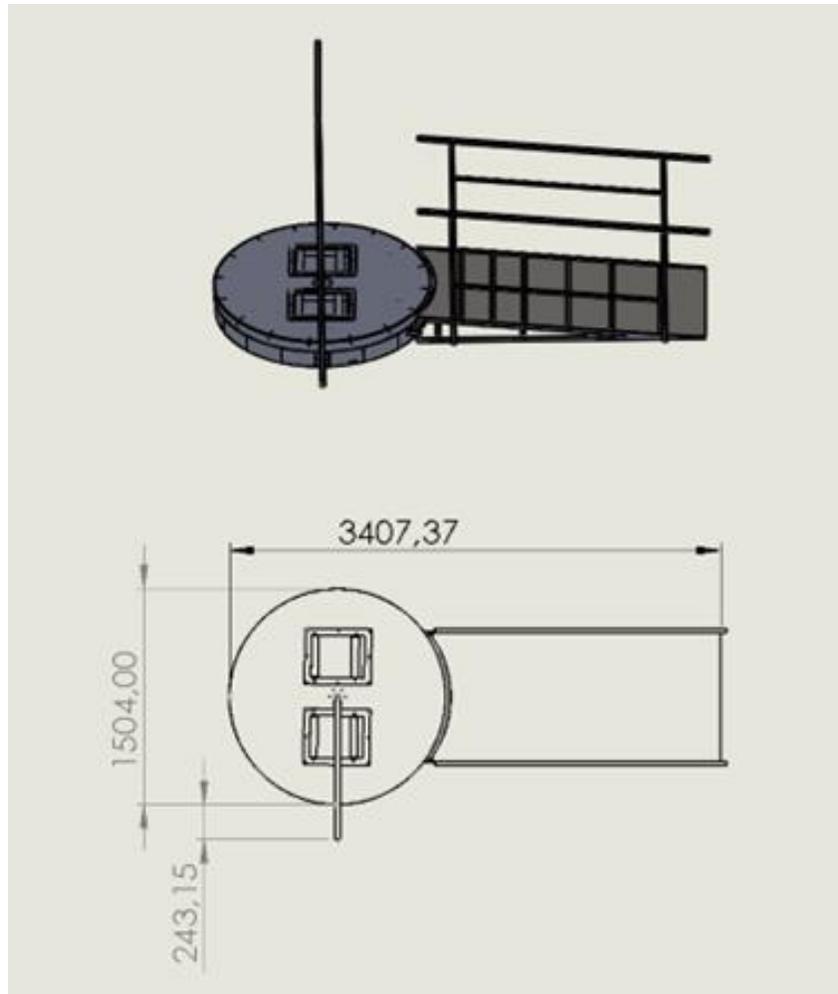


Figure 7. Diagram of the wheelchair driving simulator. Dimensions in mm

On the platform, each wheel of the wheelchair is placed between two rollers. Figure 8 shows the roller box where the wheelchair is fixed in place. The communication of the actions carried out by the user or by the scenario are received by encoders connected to the rollers that transfer the order to Unity and are translated into movement in the virtual environment (Figure 9). The height of the platform was determined by the mechanical elements needed to transmit movement housed inside it. An access ramp permits wheelchair access to the platform (Figure 10). Two of the three encoders are associated with the movement constituting the core of communication between the user's actions and the platform. An additional encoder is used to read the relative position of the chair on the platform. There is also a collector system through which the data from the encoders are sent to the motor and a plate to attach the encoders to the upper base of the platform.

In summary, the platform has a rotating circular base with four rollers (two for each wheel) on which the two driving wheels of the wheelchair rest. This permits rotation and movement to be transmitted so the user can feel realistic simulated movement.

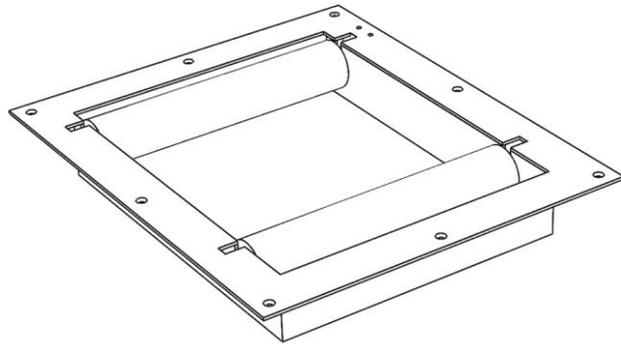


Figure 8. Perspective view of the roller box on which the wheelchair will be placed.

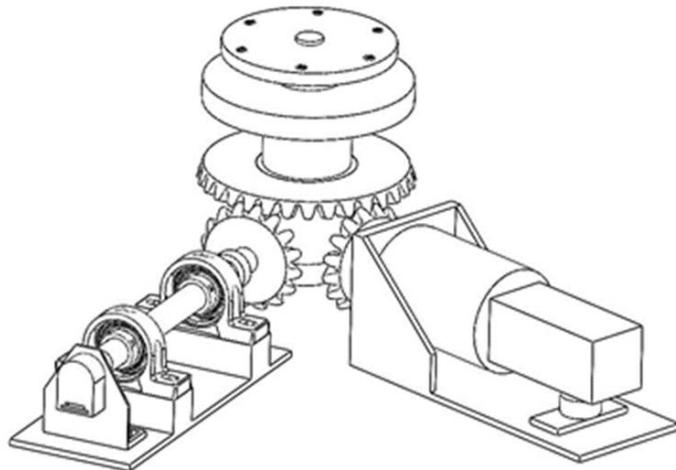


Figure 9.- Details of the gear and motor used to rotate the platform and the encoder that reads its position, the collector system through which the data from the encoders are sent to the motor, and the plate fixing it to the upper base of the platform.

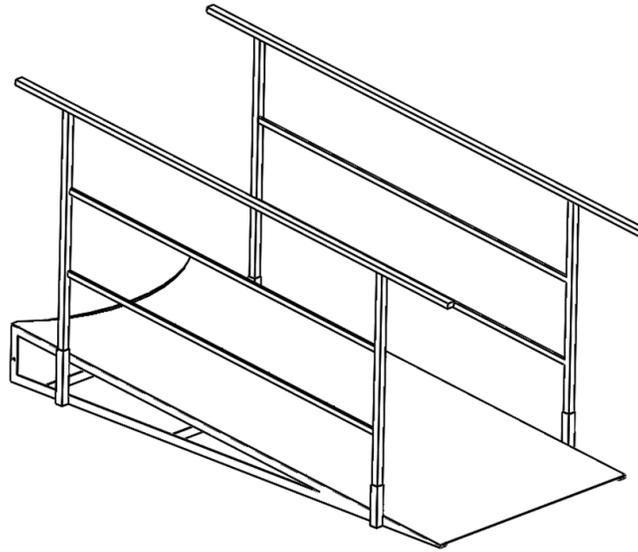


Figure 10.- Platform access ramp with safety rails.

The platform can handle up to 200 kg and provides turning and forward and backward scrolling. The simulation motion platform consists of a 3-DoF motion platform with a sensory real-speed wheelchair on it. The motion platform, connected to virtual-reality glasses for a single user, can incorporate a rear projector on the front of the platform, allowing the user and others to see the scene.

HTCview glasses with a 110° horizontal field of vision are used. The simulator also has a built-in 5.1 surround sound system, and a safety anchoring system for the wheelchair is incorporated into the platform to prevent falls since sudden movements could cause the wheels to disengage from the roller drawers.

The visual system, the motion platform, the operator console, and the sensory interface are controlled by a Workstation PC with an Intel C612 processor, 2.1 GHz CPU, 16 MB of RAM, 8Gb of DDR3 memory, and an NVIDIA M4000 graphics card with PhysX support.

Assembly example and functional description.

As mentioned in the description above, the platform has been designed in parts. First, the lower base with the motor and encoders are put in place and, using the central axis of rotation, the upper base is placed on top. Once fixed, the drawers containing the rollers are inserted into their respective positions and attached to the base.

Next, the cable-carrying structure of the Virtual Reality glasses is installed, and the access ramp is assembled. Finally, the railings are mounted on the ramp.

The platform is equipped with mechanical and electronic systems developed and optimized to meet all operational requirements.

One of each pair of rollers can rotate freely, and the other is linked to the motor. The movements of the two reels associated with the software, one for each wheel, are interpreted independently. The drive rollers have position-sensing devices on their shafts to transmit the electrical signal of their rotation to the computer, which reproduces the movements on the virtual model.

Movement and rotation transmission is achieved as follows: when the two drive rollers rotate in the same direction, the computer system measures the speed of each roller. If the speed of both rollers is the same or almost the same, the computer interprets that the user is moving forward or backward in a straight line and does not activate the platform's turning motor. The motor is only activated if a turn is required. When one of the roller's rotation speeds is faster than the other, the chair will rotate in the established direction. When the user wants to turn the wheelchair quickly, they must turn the wheels in opposite directions. If the left wheel is turned forward and the right wheel backward, the rotation is clockwise, and vice versa. The platform includes a computer system connected to position detectors that allow the two possible modes described above: active mode, in which the user directs the movement in the virtual environment, and autopilot mode, in which the computer system passively directs the user's movement in the virtual environment. In active mode, the platform creates rotational resistance to emulate the resistance of the simulated terrain.

Ramp access is an element that differentiates this platform from other more sophisticated and cumbersome solutions using elevators [7]. Elevator systems increase weight, reduce portability, and raise manufacturing costs, as well as adding to the user's feeling of dependency. With our system, the user backs onto and up the ramp to the platform. Exiting the platform is also done backward. The handrail on the ramp provides safety and added support.

The platform has a cable-carrying structure that connects the mobile base to the computer support and virtual reality glasses. This structure prevents the cable from getting snagged during use.

The platform has safety systems to limit the motor rotation speed, preventing it from going too fast, which could cause uncomfortable or risky situations for the user. It also has an emergency stop button that stops the activity immediately. Finally, the distance between the front and rear rollers has been established to prevent the wheels of the chair from disengaging, providing extra safety.

The platform was built in four easy-to-assemble parts (swivel base, access ramp, safety handrail, and spectacle hanger) to make it portable.

Virtual scenario

A tour has been created within a virtual environment identical to the one a visitor takes during a conventional visit. All the information panels and all the interactive elements of the site are represented in the digital twin.

The virtual path was built using Unity simulation software, which contained a large amount of information about the virtual paths. We increased the precision of the objects to make the scene look more authentic and thus improve the immersive experience. All the photogrammetry and scanned elements were processed and added to the environment to create a more realistic and informative digital scenario. Finally, the virtual wheelchair design with the physical properties described in section 2.1 was added to the scene design.

The tour starts through the entrance door to the museum, located on a higher level than the site's main elements. The next stage moves through a hall where information is displayed on panels and ends at a staircase leading down to the crypt. Visitors can contemplate the crypt's geometry, the arrangement of the tombs, and the paintings on the walls.

Then, visitors leave the crypt by going up another set of stairs. From these stairs, it is possible to see the other main element of this site, the remains of the Punic Wall. Various perspectives of the wall become visible as the upper level is reached. Advancing about thirty meters from the end of the stairs, visitors return to the entrance, and the route is completed. Figures 11 to 18 detail how realistic the digital scenario is. Figures 11 to 16 show the 3D digital twin on the left and the real site on the right.

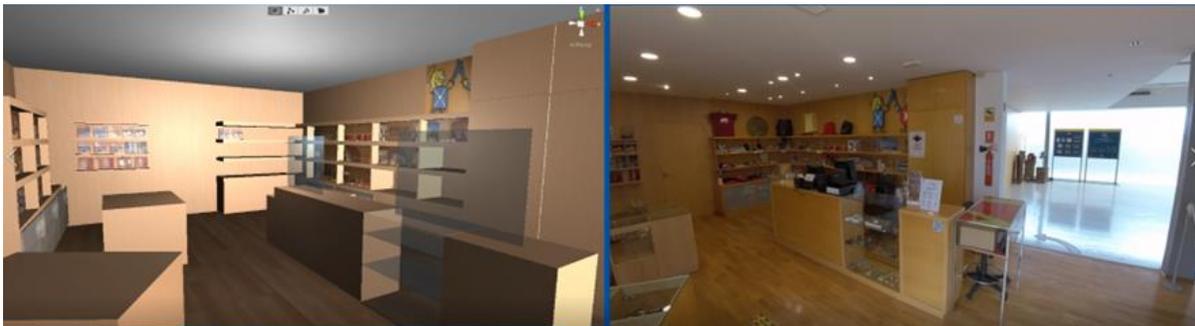


Figure 11. Ticket sales and shop area of the Punic Wall



Figure 12. Hall



Figure 13. Crypt seen from above



Figure 14. Punic wall



Figure 15. Detail of the stairs to the crypt



Figure 16. Detail of the tombs inside the crypt

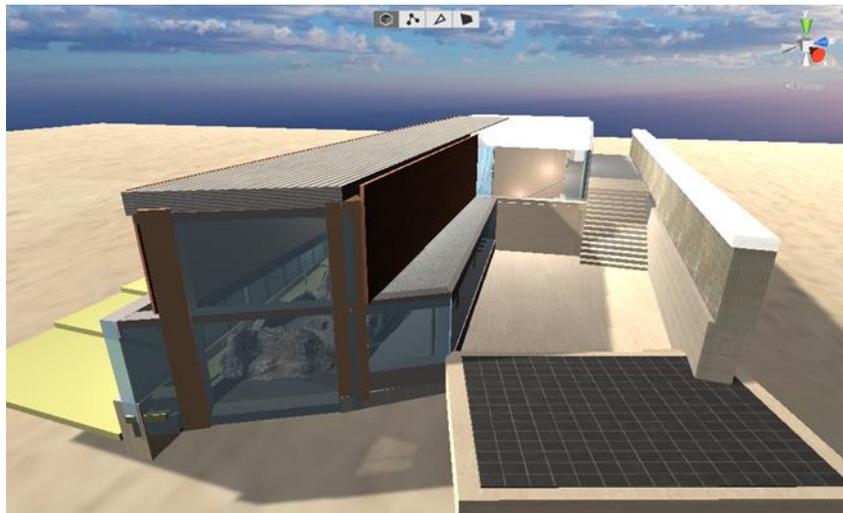


Figure 17. General view of the digital twin of the Punic Wall site (a)

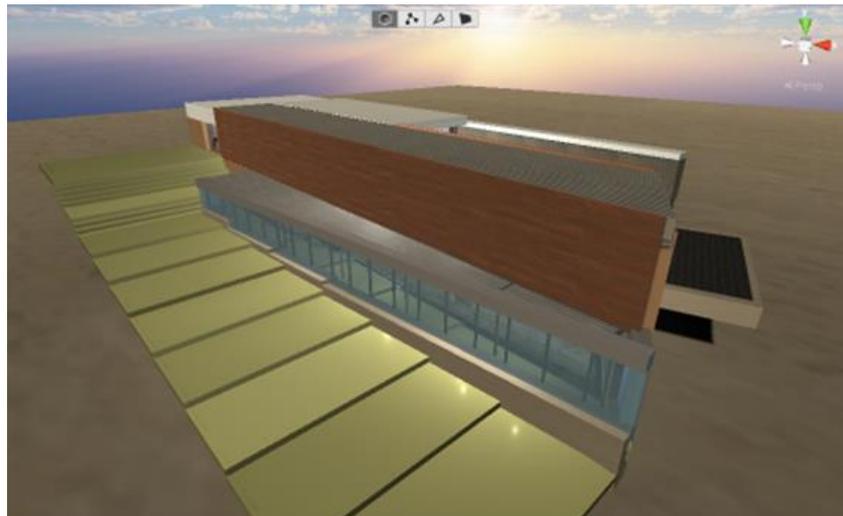


Figure 18. General view of the digital twin of the Punic Wall site (b)

Conclusions

The first prototype of INCLUSION VR, developed by the Industrial Design and Scientific Calculation Service of the SAIT at the UPCT, has been installed in the Museum of the Punic Wall in Cartagena. People with motor disabilities have already enjoyed this immersive experience from the platform in their own wheelchairs or with one available on the platform. They have been able to 'walk' and see both the remains of the defense of the Carthaginian colony from the 3rd century BC and the funerary crypt from the 17th and 18th centuries located in this enclosure. Visiting this site was previously impossible for people with motor disabilities and sometimes even difficult for people who do not have mobility limitations. Figure 19 shows a real experience using INCLUSION VR.



Figure 19. An immersive, inclusive experience

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Supporting Educators Towards More Inclusive Design of Entrepreneurship Courses

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Abstract

This paper explores inclusive entrepreneurship course design across European universities. Drawing a sample of six cases across five universities the paper adopts a multiple case study research design to explore how educators are supporting the Missing Entrepreneurs according to the OECD definition (women, people with disability, refugees and migrants, young people and seniors). The findings show interesting and innovative pedagogical approaches to emerge by analogy and replication. The paper provides empirical and practical contribution for educators in terms of developing entrepreneurship courses according to the principles of universal design for learning drawing on needs of the Missing Entrepreneurs. The Paper further contributes to a more focused approach for educators who want to target entrepreneurship programmes and support specific underrepresented groups, such as female entrepreneurs, people with a disability, the youth and seniors as case studies are explained.

Keywords

entrepreneurship, business start-up, educators, course design, universal design for learning, Missing Entrepreneurs.

Supporting Educators Towards More Inclusive Design of Entrepreneurship Courses

Introduction

Higher education institutions (HEIs) mainly develop entrepreneurial curricula across the earlier stages in which entrepreneurship is stimulated. This involves the inspiration, education and incubation stages. Programmes and courses in entrepreneurship usually exist across faculties and schools at undergraduate and postgraduate level. Entrepreneurship courses and initiatives may also be created and delivered by knowledge transfer and incubation centres of HEIs.

Although examples are emerging, it is still unusual for HEIs to develop entrepreneurship curricula that explicitly considers underrepresented cohorts. Most courses in HEIs across Europe are open to all students, but educators give little consideration to what is needed to facilitate minority groups of students that may need extra support to access and participate.

Categorising the many approaches to entrepreneurship education into three pedagogies of the supply side model; the demand side model; and the competence model (Nabi et al., 2017), the barriers and obstacles that students from minority groups may experience are wide ranging. The supports needed also exist on a continuum from more mainstream courses that are welcoming to everyone, to major adjustments and customisations that will allow specific minority groups access and fully participate in specialised entrepreneurship courses.

The OECD recognises six important groups of Missing Entrepreneurs: women, youth, seniors, the unemployed, immigrants and people with disabilities (OECD, 2021). These groups face greater hurdles on the path to entrepreneurship, yet there is substantial untapped opportunities that exist from these populations if training and supports are enabled. Educators must respond by ensuring that they are designing entrepreneurship courses that allows Missing Entrepreneurs to access and participate in education and training that is appropriate and meaningful to their needs.

This paper adopts a multiple case study approach (Yin, 2009) towards inclusive entrepreneurship course design across five European universities of the European University of Technology (EUt+), European University Alliance. Seven exemplar cases are identified that reach the Missing Entrepreneurs. The findings help interesting and innovative pedagogical approaches to emerge that can support HEIs in their need for more inclusive entrepreneurship education design.

Literature Review

Inclusive entrepreneurship education means that all students from any social-economic and cultural demographic, geographical location, gender, disability, ethnicity and discipline have equal opportunity to experience entrepreneurship education and access entrepreneurial learning environments (Smith et al., 2017). Achieving inclusive and accessible entrepreneurship education is not without challenges. Educators are often coerced towards low-cost pedagogy involving traditional approaches in large lecture theatres and 'one-size-fits-all' content (Morselli and Gorenc, 2022). For students of minority backgrounds this can create a negative experience (Cope and Watts, 2000).

Inclusive Entrepreneurship Education

Inclusive entrepreneurship education ensures all students can learn, participate, and are welcome as valuable members of their institution (Nilholm, 2006). Inclusive teaching is underpinned by principles of social justice and rights (Wijeratne et al, 2022). This means taking account of and valuing students' differences within mainstream curriculum, pedagogy and assessment (Hockings et al., 2012; Mincheva, 2022).

Research has shown that for women gendered norms impact class dynamics and hinder lecturers' efforts to build inclusive classroom cultures (Wijeratne et al., 2022). Entrepreneurship is affected by this in a number of ways. Within entrepreneurship education teaching cases and methods are largely about the "heroic male" normative assumptions and narratives (Ahl, 2007). Similarly, the practice of entrepreneurship is stereotypically described with characteristics such as risk taking or aggressiveness that would often be ascribed to men (Siivonen et al., 2022; Sharen and McGowan, 2018; Jones, 2014). In teaching activities, such language and norms may afford perceptions or practices of exclusion and micro aggressions, that could have intersectional dimensions and may discourage attendance or participation by targeted groups (Harrison and Tanner, 2018). Inclusive teaching begins with forward thinking design, so that course materials including readings and assessments reflect the variation in identities and perspectives that might be in the classroom (Gannon, 2018).

Within the HEI ecosystem, a progression model approach to entrepreneurship education is gaining attraction (Lackéus, 2015; Klucznik-Tőro, 2021). The progression model draws on a wider definition of entrepreneurship aligned to the EntreComp approach. Scholars such as Hynes (1966) and Fayolle et al. (2019) promote a broad range of problems to be defined, analysed and solved through entrepreneurship education. Gaining an entrepreneurial mindset is not a single event, but rather a continuous process of training, even from a young age (Gavigan et al., 2022).

Moreover, Rae et al. (2010) link entrepreneurship education to an even wider reach in its ability to influence groups of people and at a societal level.

Authors such as O'Brien et al., (2021) highlight how people from minority groups suffer social marginalisation that entrepreneurship education can alleviate. It is further suggested that developing specialised entrepreneurship courses and opting for more inclusive course design can reduce declining rates of labour productivity and growing inequalities, unlocking an unrealised entrepreneurial potential in under-represented communities (Cooney and Licciardi, 2019).

Enhancing entrepreneurship education that is welcoming to all can integrate universal design for learning principles (Rose and Meyer, 2002) to address barriers commonly experienced by diverse student groups (see Figure 1).

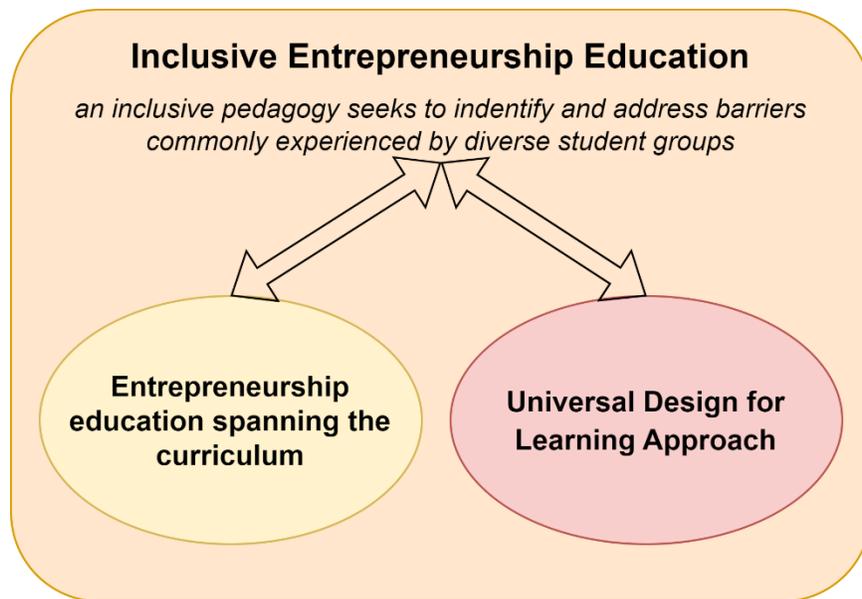


Figure 1. The inclusive entrepreneurship education components

Entrepreneurship education spanning the curriculum

Embedding inclusive entrepreneurship education in the curriculum is led by the idea that employability, enterprise and entrepreneurship can be built into the delivery of traditional subjects such as economics or engineering. Indeed, entrepreneurship within STEM disciplines is a key priority of the European Commission, especially for women to build strong foundations for innovation and job growth in the region (EC, 2023). Entrepreneurship education plays a key role in nurturing the key competencies in everyone and is part of the EC eight key competences for lifelong learning, such as personal fulfilment, citizenship and social inclusion (European Commission, 2019).

University entrepreneurship education and training, especially in non-economics and non-business environment are increasingly moving towards experiential learning by implementing a social constructive approach (Lackeus, 2020). Entrepreneurship educators at universities face the challenge of setting learning goals and evaluating inclusive entrepreneurship education design that aligns to the Bologna Declaration and the European qualification framework (EQF) tripartite (knowledge-skills- attitudes) model (Tauch 2004). To better answer the requirements of the Bologna Declaration and complementing the European Universities Initiatives, many universities are involved in academic curricula restructuring aiming to become 'entrepreneurial universities' with students across all disciplines developing entrepreneurial skills (Scarlat,2007).

A Universal Design for Learning Approach

Universal Design for Learning (UDL) is more than just good teaching as suggested by Hayward et al. (2022). UDL is an instructional framework designed to address learners' variability by removing barriers in the curriculum (Burgstahler, 2009; Williams et al., 2021). The goal recognises that students are not a homogenous group. There are many dimensions upon which they may differ such as ability, age, ethnicity, gender and/or socioeconomic status (Murphy, 2021). Within this context variability implies that students learn in different ways and to ensure a good experience for all students a variety of pathways gives appropriate choice and flexibility (CAST, 2018; AHEAD, 2017). Although studies show UDL as effective for student learning with significant cognitive disabilities, UDL offers a framework to design and deliver programmes and modules that ensures materials and learning environments affords the best learning experience for all students irrespective of their ability or disability (Burgstahler, 2009; O'Neill and Maguire, 2019).

Studies have examined UDL implementation across a range of curriculum content areas such as reading (Kennedy et al., 2014) and mathematics (Kortering et al., 2008) all revealing positive impacts on students' engagement and academic outcomes (Reinhardt et al., 2021). Further positive results in demonstrating gains in both academic and social outcomes for students with a range of diagnoses and disability severity levels (Cipriano et al., 2022). Such findings have led to the National Educational Technology Plan (2016) to promote UDL as an important means for creating learning environments for diverse learners, but especially for learners with disabilities. Furthermore, concerning research on teachers adopting the principles of UDL, studies indicate an increase in teacher's efficacy, instructional and self-efficacy (Hayward et al., 2022). Teachers also report greater success in reaching diverse learners (Bradford et al., 2021) and increasing student engagement (Marino, 2021).

Further research has indicated positive outcomes associated with UDL for diverse learners in grades as suggested by Ok et al. (2017). Here UDL was found to be beneficial in improving access to the curriculum, reducing behaviour problems, and increasing metacognitive knowledge.

Methodology

This paper adopts a multiple case study approach (Yin, 2009). Six case studies from 5 European universities of the European University of Technology (EUt+) were used to showcase approaches to inclusive entrepreneurship. The case examples were built through data collection from a number of sources including educator written explanations, online content, news and media content, seminar presentation, informal discussions and mini surveys / feedback sheets. Cases were selected to ensure a mix of geographic locations from across Europe and as good exemplars for specific cohorts of Missing Entrepreneurs. The cases were originally documented in the ‘Educator handbook for designing inclusive entrepreneurship courses in higher education’. This document was created as support for educators and was translated into the languages of the universities in 2022. The English version is available at:

https://arrow.tudublin.ie/researchporbk/4?utm_source=arrow.tudublin.ie%2Fresearchporbk%2F4&utm_medium=PDF&utm_campaign=PDFCoverPages.

The correlation between the case studies and the findings are presented in a concise manner in table 1. A more detailed description on each case study is included in the aforementioned handbook.

Table 1. Correlation between the case studies and the findings

Case study	Carried out at	Participants	Case reflections and Findings
<p>Case one: WE Support to encourage <i>women entrepreneurship</i> across all university disciplines</p>	<p>Technological University Dublin (TU Dublin)</p>	<p>101 students and Alumni women</p>	<ul style="list-style-type: none"> • There are industry sectors that are traditionally more appealing to women than men. • Flexibility in delivery options is needed since women often have greater family and home responsibilities. • A wide representation by women is needed within the course material. • Women need additional post-programme support if they want to start a business.

<p>Case two: Address entrepreneurship skills for <i>young people</i> (older children) and those that are excluded from joining university</p>	<p>Technical University of Cluj-Napoca (TUCN)</p>	<p>a total of 120 students attendance</p>	<ul style="list-style-type: none"> • Mentoring as an introduction to networks and agencies could be a very good support to help women stay on their entrepreneurship trajectory. • Young people often lack practical experience. • Young people are in need of validation to increase the level of confidence and self-esteem. • They are limited by the comfort and security they feel by the labour market and no longer take the initiative to take some risks to start their own business. • Lack of motivation needs to be mentioned in the context of courses targeted at young people. • Encouraging entrepreneurship in young people at an earlier age gives them a real head start for engaging in entrepreneurship initiatives.
<p>Case three: Analyzing the struggles of <i>refugees</i> within the realm of social entrepreneurship</p>	<p>Cyprus University of Technology (CUT)</p>	<p>35 students from the Department of Multimedia and Graphic Arts, in cooperation with Migrant Information Center with 50 migrants</p>	<ul style="list-style-type: none"> • Migrants and refugees may not have the same access to finance and other supports of other groups in society. • Language barriers and reliance on social media may have particular pertinence for migrants and refugees. • Linking into migrant networks should be developed within the course content. • Barriers to finance or legal status may prevent migrants from traditional enterprise routes for new venture creation. • Consideration of post programme support in the design of entrepreneurship courses is important.
<p>Case four: A student story with <i>disability</i> that participated in pre-incubator Idea LAB course</p>	<p>Riga Technical University (RTU)</p>	<p>1 student with disability</p>	<ul style="list-style-type: none"> • High percentage of disability is invisible. • A student may not realise until after they start a course how they need to be supported; thus openness and responsiveness needed;

and developed his own idea - E-Race Wheel			<ul style="list-style-type: none"> • Persons with disabilities should be represented within the course material. • Care is also needed to respect variability of students with a disability. • Consideration of the most suitable pedagogy or mix of pedagogical approaches is important.
<p>Case five: A student who participated on the self-employment for <i>people with disability</i> pilot course</p>	Technological University Dublin, (TU Dublin)	1 participant with disability on course	
<p>Case six: Address entrepreneurship skills and mindsets for seniors over 55 years of age at Seniors University</p>	Universidad Politécnica de Cartagena (UPCT)	3 courses of 50 people with a total of 150 people over 55 years of age receiving the programmed studies (50% women, 50% men)	<ul style="list-style-type: none"> • Entrepreneurship holds the potential for providing a way for seniors to remain active beyond the typical retirement age. • Entrepreneurs benefit from improved physical and mental health, maintaining social connections, and creating economic value. • Seniors have a lot of experience but need additional skills such as opportunity recognition to be successful in entrepreneurship and self-employment. • Seniors are much more motivated to stop a business due of retirement or if it is not profitable. • Barriers to entrepreneurship for seniors often include health issues, the opportunity cost of time and the shorter timeline to grow a sustainable business

Findings

The cases and findings were originally documented in the 'Educator handbook for designing inclusive entrepreneurship courses in higher education'. This document was created as support for educators and was translated into the languages of the universities in 2022. The English version is available at:

https://arrow.tudublin.ie/researchporbk/4?utm_source=arrow.tudublin.ie%2Fresearchporbk%2F4&utm_medium=PDF&utm_campaign=PDFCoverPages. Findings are presented under the categories of the OECD's Missing Entrepreneurs.

Designing specialised entrepreneurship courses for women

Designing and delivering courses on female or women entrepreneurship requires thought about different industry sectors that future entrepreneurs may find more appealing. Women entrepreneurs exist in and should be encouraged across all sectors in society, but there are sectors that are traditionally more appealing to women than men. It is a very interesting challenge for educators in HEIs to work out how to integrate ambitions of promoting entrepreneurship in STEM fields with traditionally more appealing sectors for women.

A wide representation by women is needed within the course material. This might include case studies, guest seminars, mentoring. Developing courses for better participation by women should also recognise intersectionality, where for example a student might be a woman but also have a disability, or also have refugee status, or also be in their senior years.

Flexibility in delivery options is also needed, especially where courses are not designed for full time students. Women may have greater family and home responsibilities that makes them less flexible with time. Providing recorded lecture materials and multiple options for engagement may be required.

Mentoring as an introduction to networks and agencies could be a very good support to help women stay on their entrepreneurship trajectory. Educators should consider how this can be achieved with the limited supplementary resources and time often available to them. Could they rely on past students as mentors? Is there such supports in other departments of the institution, for example the technology transfer office? Are there experienced entrepreneurs that are willing to spend time supporting other budding entrepreneurs? How does the government and its agencies support mentoring of female entrepreneurs that you could draw in?

Women need additional post-programme support if they want to start a business. They may lack female mentors, be more restricted on time or feel excluded from support agencies and networks. Lecturers should work with their technology transfer offices to establish pathways that feel welcoming and accessible to women. This may be advanced programmes or initiatives to start a business. This information and linkages should be included in the course content.

Designing specialised entrepreneurship courses for children and unemployed young people

Young people need a strong practice approach that combines with some theory. Those who feel the need to assert themselves in the field of entrepreneurship, often lack practical experience.

Courses for young people should support them to develop both personally and professionally. A favourable environment to develop personally, in terms of communication and teamwork, as well as professionally, in terms of technical / theoretical knowledge is very important.

Validating young students' performance throughout a course will help to increase the level of confidence and self-esteem.

Once young people reach the labour market, they are limited by the comfort and security they feel and no longer take the initiative to take some risks to start their own business, which leads to stagnation. Lack of motivation needs to be mentioned in the context of courses targeted at young people. This starts before university. Encouraging entrepreneurship in young people at an earlier age gives them a real head start for engaging in entrepreneurship initiatives during their university years.

When designing courses for children, particular risk assessments, consents and supports will need to be in place. This will need to be fully worked through before starting if targeting pre-university students.

Designing specialised entrepreneurship courses for refugees and migrants

Migrants and refugees may not have the same access to finance and other supports of other groups in society. The educator would need to have a clear understanding of differences before developing course content. Language barriers and reliance on social media may have particular pertinence for migrants and refugees. Course content should be developed with a good understanding of this.

Migrants and refugees may not have strong linkages within entrepreneurship ecosystems but they may also have strong networks within their own groups. Developing private sector linkages and linking into migrant networks should be developed within the course content.

Social innovation and social enterprise may have an important role in courses developed for migrants and refugees. Barriers to finance or legal status may prevent migrants from traditional enterprise routes for new venture creation.

Consideration of post programme support in the design of entrepreneurship courses is important.

Working with your technology transfer office or incubation hub to facilitate next steps for migrants

and refugees who may not be able to access national supports can help ideas and opportunities reach fruition.

Designing specialised entrepreneurship courses for people with disabilities

When designing and delivering entrepreneurship courses for persons with disabilities, it cannot be overstated how important the planning and design stage is. Reasonable adjustments and accommodations may vary greatly. In addition, a high percentage of disability is invisible. Planning, working with the disability support office and engaging with students on their own needs even before registration is important. A short questionnaire or interview with students may be conducted before the start of a programme where students can disclose any medical needs or other relevant information that they want to share. Educators should also provide opportunities during course delivery for students to declare any adjustments that they need. A student may not realise until after they start a course how they need to be supported.

Any educator who is delivering an entrepreneurship course for persons with disabilities should have a good knowledge of accessible technologies and other support tools needed for their programme. They will also need to know how these work within the customised software of their own institution as students may not be familiar with these in advance.

Persons with disabilities should be represented within the course material such as in case studies, guest seminars or in assessment work. Care is also needed to respect variability of students with a disability. Depending on the size of a cohort, there may be potential to individualise materials, or include a mix of broader and focused material concerning entrepreneurship for persons with disabilities so that everyone feels welcome.

While not compromising on quality, consideration of the most suitable pedagogy or mix of pedagogical approaches might be important. For example, what real life projects and assessments can be developed and what options can be developed for each student to participate in? What is the requirement for physical or online participation from different approaches?

Course material should include access to post programme supports designed in to help students stay on the entrepreneurship trajectory. This should include opportunities for mentoring, networking opportunities, and access to incubator facilities. Such information should be clear about physical access or limitations that might impact particular individuals.

Designing specialised entrepreneurship courses for seniors

Developing entrepreneurship education for seniors offers wonderful opportunities for intergenerational learning experiences in HEIs that can be leveraged in the design of programmes and extra-curricular activities. This is an untapped entrepreneurial potential recognised by the OECD.

Designing and delivering education for seniors can have a strong social enterprise aspect promoting solidarity among students and their communities. Entrepreneurship holds the potential for providing a way for seniors to remain active beyond the typical retirement age for those who wish to do so, leading to benefits of improved physical and mental health, maintaining social connections, and creating economic value. It can play an important role in active aging policy.

Older people that are interested in starting a business or becoming self-employed may have spent their entire careers working as employees. They may have a lot of experience but need additional skills such as opportunity recognition to be successful in entrepreneurship and self-employment. The evidence indicates that seniors are much more motivated to stop a business because of retirement or because it was not profitable. This could point to need for educational support to sustain successful business, but also concerning transferring and selling a business to fund retirement.

Evidence from the OECD suggests that senior entrepreneurs are very similar to the normal population in terms of skills and competences. However, barriers to entrepreneurship for seniors often include health issues, the opportunity cost of time and the shorter timeline to grow a sustainable business compared to younger entrepreneurs. This points to similar approaches to educational provision, but alternate consideration may be given to targeting, selection, retention and communication channels with seniors.

Discussion and Conclusion

The key challenge in this paper is a gap in literature facing educators on how to design and deliver inclusive and accessible entrepreneurship education to diverse learners. The case studies collected across European universities provide rich contextual data and experiences to connect Missing Entrepreneurs to educational contexts internationally. The paper provides a contribution for the cohort of educators in the design of mainstream courses according to the principles of universal design for learning. When specific needs begin to be understood, educators have the opportunity to consider such issues upfront at the design stage of programme and course development. In addition, the shared experience of design and delivery of courses to specific cohorts of missing entrepreneurs helps educators to create courses specific to the challenges and

idiosyncrasies. Our contribution in this paper is mainly a practical one to support course designers in the entrepreneurship education field.

There are limitations with this study. Aspects of UDL are applied to some of the cases but more research is needed on mainstream entrepreneurship courses that are designed from the outset according to UDL principles studying them from creation to delivery and assessment. In addition, the importance of inclusive entrepreneurship course design within other subjects and spanning curricula to embed entrepreneurial mindsets in all students is not explored here, even though its importance is recognised (Lakeus, 2020). Future studies could also research that challenge. An exploration of the theoretical contributions could also be developed in future studies.

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Challenges of Data Collection for equality between women and men: the EUt+ alliance case

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Abstract

This paper provides a comparative analysis of gender equality figures between women and men for the partners of the European University of Technology (EUt+) alliance. A baseline template was developed appropriate for higher education institutions and influenced by categories of data collected for the 'She' survey. Results for a baseline year of 2019-20, and for some categories 2020-21 are illustrated in the paper. It is notable that average distribution hides significant variations between the eight institutions and these are explained. Notwithstanding, the trends are similar to the 'She' Figures and CESAER observations on technology universities. The proportion of women declines significantly at the top level suggesting clearly a glass ceiling for career progression. The paper also gives insight on challenges collecting this data across the EUt+ partners that can be grouped into cultural challenges that recognises how discriminatory practices differ across countries as defined in the 2023 OECD index, structural challenges whereby legislative and privacy interpretations and sources of data can be different across countries, and also technical challenges whereby reporting systems and definitions may differ across countries. The baseline data discussed in this paper provides evidence for a starting point of EUt+ collaboration towards supporting women's careers and more balanced student representation and governance.

Challenges of Data Collection for equality between women and men: the EUt+ alliance case

Introduction

Higher education is an area in which knowledge is created and disseminated and high-quality human capital is produced. This is shown to have a positive effect on the quality of life of individuals and on economic progress in the areas where higher education institutions are located (Chankseliani et al 2020, Valero & Van Reenan 2019, Ma et al 2019). In the context of global competition, the development of human capital is vital for economic competitiveness (Krstić et al 2020, Chulanova 2017). A critical element for guiding the development of human capital is the collection and analysis of relevant data (Lim et al 2018). Reliable, relevant, and consistent quantitative data, collected over time and with comparisons across similar institutions and sectors, enables analysts to determine the efficacy of development-oriented actions and evaluate outcomes (de Matos Pedro et al 2022, Demirgüç-Kunt & Torre 2022). Gathering and assessing human capital data at a general level exposes the data-gathering and analysis to inadequate interrogation, as it is likely to mask gender differences in performance and outcomes. Until recent times, with the collection of sex-disaggregated data in higher education by the European Commission, published as *She Figures* on a triennial basis, there was no clear comparative basis for examining the gendered profile of higher education. In addition, the collection of these data was not systematic within member states.

The demand is now growing in higher education for the collection of sex-disaggregated data, accompanied by gender and intersectional analyses. There are a variety of inter-connected reasons why this demand has emerged. First, there is the human capital reason - gender differences in academic careers points to a constraint on the maximisation of human capital as a good for the individual, the economy and society. Second, there is the justice reason – an equal valuing of male and female academic work is an aspirational norm in higher education. A sex/gender data analysis can point to the extent to which this norm is upheld. Third, is the role universities play as agents of social change - higher education is an important influencer of societal norms and expectation and can play a significant part in challenging gender stereotypes. Initiatives in higher education in tackling gendered patterns and practices are more persuasive in the societal context when supported by evidence-based outcomes. Fourth, there is a growing need for accountability in delivering gender equality when public finance is involved. Higher education is a

substantial consumer of tax-payers money, not least in respect of research funding disbursed by national, European and other world regional research and innovation funding bodies. Increasingly, applicant universities and researchers are being asked to address gender equality in their proposals as a non-negotiable eligibility condition. In particular, the condition is a lever employed by the European Commission to contribute to progress towards a gender-equal Europe by 2025. Finally, higher education institutions have a central role in delivering on the global Sustainable Development Goals (SDGs), of which Quality Education (SDG4), Gender Equality (SDG5) and Peace, Just and Strong Institutions (SDG16) are key to ensuring equity in education and society. While these five pressures vary from one country to another, they together point to higher education being a focus for the delivery of gender equality – a not uncomplicated task (Clavero & Galligan 2020, IESALC & THE 2022).

Because of these conditions, many institutions are addressing the task of collecting data on sex and gender, quantitative and qualitative, and of conducting meaningful analyses of these data as a prerequisite for developing gender equality plans. This paper considers the challenges of data collection experienced by an alliance of eight European university partners, the European University of Technology (EUt+), as an illustration of the issues being experienced across higher education more generally. It is particularly relevant to choose the EUt+ case for two reasons. First, the partners share an explicit vision of a human-centred approach to technology, expressed in the slogan ‘Think Human First’. In operationalising this vision, the alliance has committed to embedding equity and intersectionality in its shared work agenda. Second, the issue of gender equality is more challenging for technological universities, given their teaching and research emphasis on engineering, science and information technologies, disciplines in which significant gender imbalances are evidenced (Klee et al 2019, Galligan & Clavero 2019).

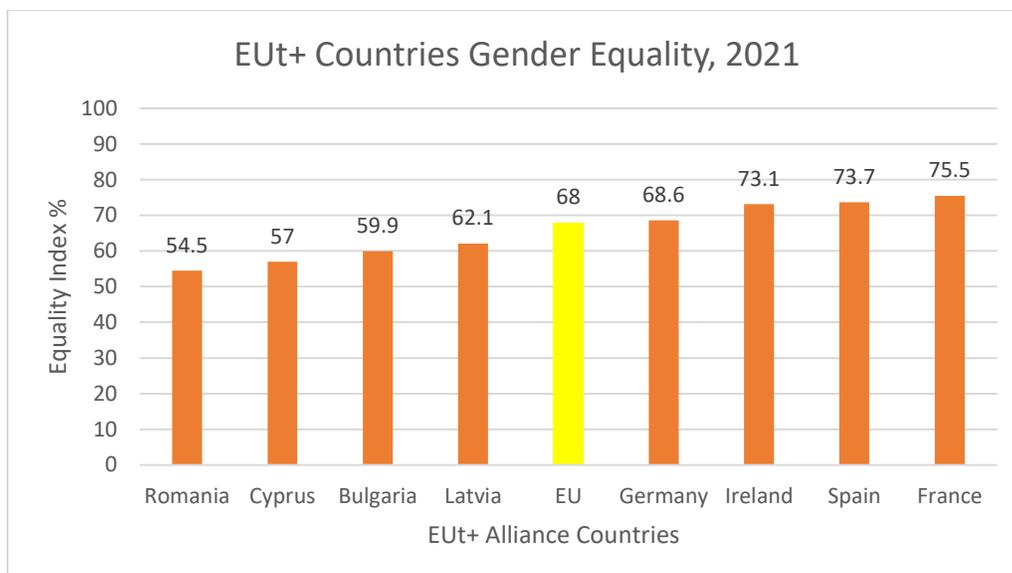
The paper proceeds as follows. First, a brief description of the partners of the alliance is provided followed by discussion of the process by which the EUt+ alliance came to develop a common data collection plan. This is followed by a comparative analysis of the data collected, illustrating the evidence base for building (intersectional) gender equality plans. In the third part, the paper reflects on the institutional challenges posed by the data collection process. The paper concludes with general reflections on the institutional lessons learned to inform further rounds of data collection.

Developing a common data collection plan for the EUt+ alliance

The flagship European Universities Initiative is designed to contribute to the European Union ambition of creating a ‘globally competitive and attractive European Education Area and European

Research Area'. It consists of transnational alliances of higher education partners intended 'to become the universities of the future, promoting European values and identity, and revolutionising the quality and competitiveness of European higher education' (EU, 2018). The 8-member European University of Technology (EUT+) alliance is one of 41 alliances funded by the European Commission to test the European University model in advance of scaling up by 2027 (EU, 2019). Spanning the continent of Europe from Ireland (Technological University Dublin, TU Dublin) in the west to Cyprus (Cyprus University of Technology, CUT) in the east, and from Latvia (Riga Technical University, RTU) in the north to Spain (Technical University of Cartagena, UPCT) in the South, the alliance brings together 100,000 students, 7,000 academics and researchers, and 5,000 administrative and technical staff. The other four partner institutions between these geographical points are in France (University of Technology of Troyes, UTT), Germany (Darmstadt University of Applied Sciences, h_da), Romania (Technical University of Cluj-Napoca, UTCN) and Bulgaria (Technical University of Sofia, TUS). Each institution operates in a wider social environment where variations in the degrees of gender equality are manifest. The European Institute for Gender Equality (EIGE) index of gender equality ranking for the countries of EUT+ partners (Figure 1) indicate the extent to which the wider culture is responsive to gender equality issues. As can be seen, there is a wide variation relative to one another and to the EU average. There is also a distinctive European West-East split except for Cyprus. Its societal level of gender equality level is more like that of the East European countries. This wider socio-cultural environment is relevant, as it influences, and to some extent explains, the degree to which each institution in the EUT+ alliance is receptive to initiatives such as sex/gender-disaggregated data collection as part of its work.

Figure 1 EUT+ Countries Gender Equality Index 2021



Source: EIGE 2022

The EUt+ vision is to provide a top quality ‘technological education that empowers citizens and the society to build a powerful Europe’ that is ‘inclusive and diverse, delivers a high-level scientific education and research, and raises technologically responsible citizens who can act for a better world’ (EUt+, 2021). This strong emphasis on diversity and inclusion built into the mission of the alliance is implemented through a dedicated cross-cutting workpackage ‘Europe for Everyone: inclusiveness and embeddedness’, led by TU Dublin. This workpackage contained four distinct cross-cutting tasks: addressing multilingualism and multiculturalism (Task 2.1); championing inclusiveness and modelling inclusive processes and interactions (Task 2.2); being a beacon of gender and race equity through implementing intersectional equity plans (Task 2.3); deepen the EUt+ connections with partner eco-systems and collaborate across territories and sectors on knowledge exchange activities (Task 2.4). The focus of this paper is on one aspect of Task 2.3, the challenge of data collection as a prerequisite condition for designing and implementing intersectional equity plans.

In May 2021, partner institutions nominated two individuals to lead each organisation’s delivery of Task 2.3, and these representatives met on 18 May to form a co-ordinating group for equity, diversity and inclusivity issues for the alliance (EDI Coordinating Group). A workplan and timeline was agreed. At the following meeting, a 3-person data management group was formed to draft an EDI Data Management Plan (DMP) which was a key deliverable of the task (D2.1.1). As part of the DMP it was agreed to start with gathering data with an initial focus on gender, as that was the data most likely to be accessible across the alliance. Agreement was then reached among the EDI

institutional representatives on a common template of data consisting of 12 specific data-points taking 2019/20 as a baseline year. These data included the number and proportion of women and men on governing committees and in senior leadership positions, gender-disaggregated data on the student profile, compared with the national benchmark, from undergraduate to PhD, and the employment profiles of academic, research and administrative staff by gender and nature of contract (see Appendix 1 for list of data points). From the equity and inclusivity perspective, the DMP was an essential piece of structure to have in place to enable partners share data on EDI in a professional and ethical manner. This step enabled data collection on the gender profile in each institution to progress as a precursor to analysis and equity action plan development, and for the data to be shared among partners. The DMP including the baseline metadata on gender and more qualitative sources of data collection was approved by the EUt+ Steering Committee on 25 November 2021. Data collection based on the metadata template was completed by early July 2022 and uploaded onto the shared EUt+ site to form a shared EUt+ EDI dataset.

Comparative analysis of gender data

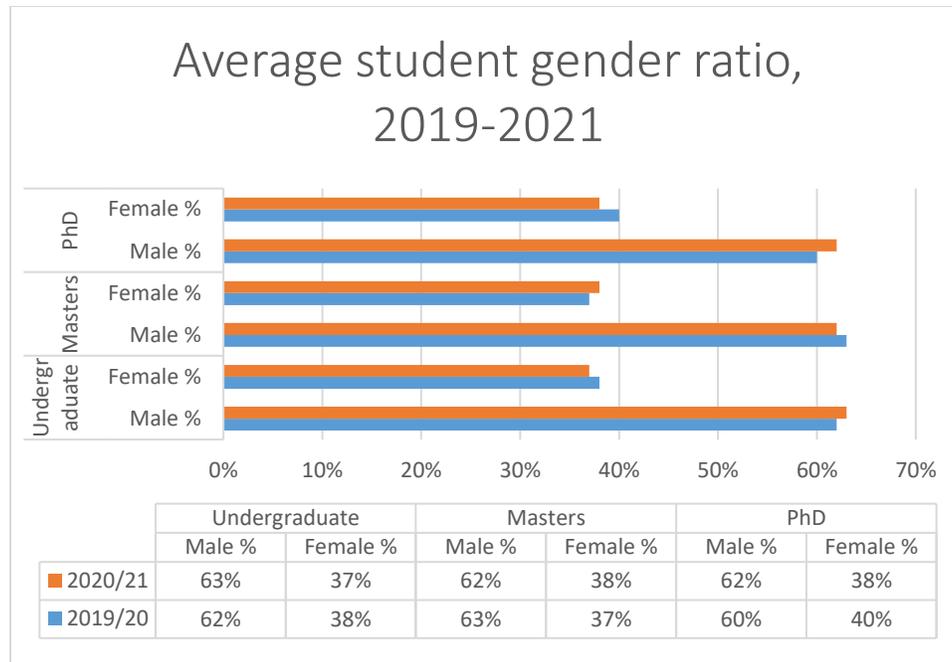
In this section, a graphical representation of data collected in EUt+ for a period of three years is given. A descriptive data analysis was made of the male-female ratio in three areas – undergraduate, masters and doctoral students, distribution by academic positions, and the ratio of men to women in governing bodies.

Students

We begin with the overall gender profile of EUt+ students for the academic years 2019-20 and 2020-21. Male students comprised about 63% of the population at each level, female students about 38%. This student gender pattern is similar to that found in the CESAER 2015 gender equality study, focusing on 43 technical universities in the European Union, and based on data for 2012-13 (CESAER 2015: 51).

Figure 2: Average student gender ratio in EUt+ institutions, 2019-2021¹²

¹² Missing data: UG-h_da 2019-20; MA-h_da 2019-20; TUS 2019-20; UTCN 2019-20; PhD-TUS 2019-20, UTCN 2019-20



Source: EUt+ EDI dataset

The average distribution hides significant variations between institutions. Females comprised the greater share of undergraduate students in CUT (2020-21 = 54%), but only 25% of the undergraduate student body in UTT. Female students were also in a majority at Masters' level in CUT (2020-21 = 62%), while in UTT the female Masters' population was 23% of the total. also had the greatest share of female Masters' students. In general, the gender profile of undergraduates is reflected in that of the Masters' level. In the cases of TUS and UTCN, however, there are proportionally more women taking Masters' studies than is in the undergraduate cohort (2020-21: TUS 26% at UG level, 37% at Masters; UTCN 36% female UGs, 44% at Masters'). At PhD level, the student profile of CUT remains predominantly female (55%). UTT attracts proportionally more women into doctoral studies (2020-21 = 39%) than at undergraduate level. These individual deviations from the average require further exploration to understand the underlying factors driving the variations.

Researchers and Academics

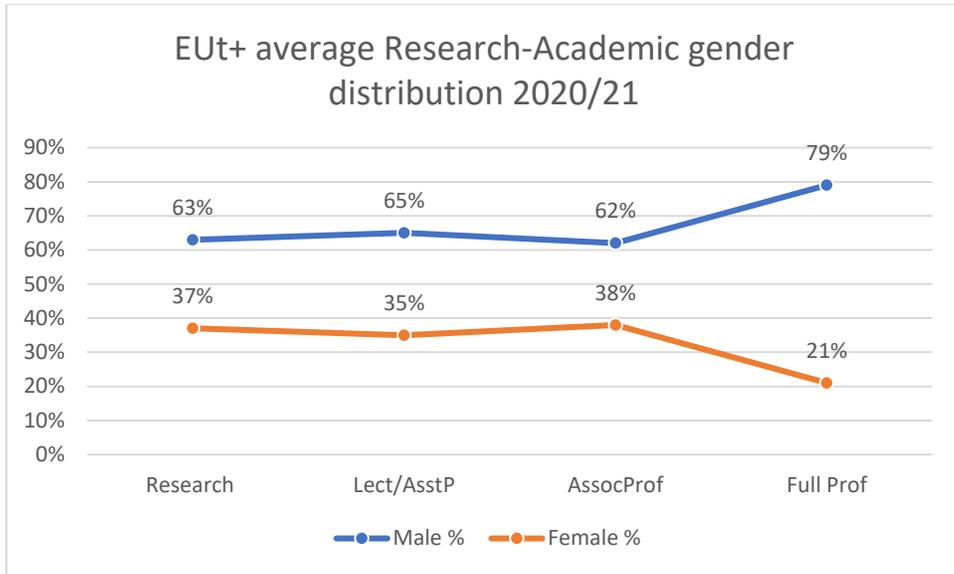
Mapping the distribution of academics is a more complex task than the student profile, as there are variations between the institutions with regards to the academic career path, full-time/part-time employment, and between academic and researcher roles. For example, TU Dublin does not have the formal position of Full Professor, so attributes the Senior Lecturer Grade III to this

role description in the data. Despite comparability challenges, the consortium institutions returned data, with 2020-21 as the most complete return.¹³ This paper thus does not analyse across years, and instead uses the data returned for academic year 2020-21 as a basis for comparison. While the agreed data template was extensive, covering matters such as rate of maternity leave takeup, the gender promotions profile, and contract type, not all partners could fill all of the requested information. Nonetheless, seven of the eight partners returned sex-disaggregated data on their research and academic employees in four groups – Researchers; Lecturer/Assistant Professor; Associate Professor; Full Professor. The eighth partner h_da provided this data beginning 2021-22. Apart from those with research-only contracts, the academic categories broadly correspond to the *She Figures* categories of academic Grade C (early career); Grade B (mid/senior career) and Grade A (the highest point of academic advancement) (European Commission 2021: 179). From these data it was possible to construct a general picture of the academic gendered profile of EUt+, and also compare trends across institutions.

Averaging the representation of women and men across the EUt+ alliance shows that in 2020-21 for every three men holding researcher, assistant professor and associate professor positions, there were two women: an average 63% male: 37% female. The gender gap widened at Professor level where for every four men holding this role, there was one woman (79%: 21%) (Figure 3). Compared to other Universities of Technology in Europe, this is a moderately positive pattern, as women occupied just over one-quarter (28%) of associate professor posts in the 29 institutions surveyed by CESAER in 2018, and only 17% of full professorial positions (CESAER 2019: 24). This pattern for EUt+ is negatively adrift that found in the 2021 *She Figures*, where women comprised 47% of Grade C (Lecturer/Associate Professor) positions, 40% in Grade B (Associate Professor) posts, and 26% of the highest Grade A (Full Professor) positions (European Commission 2021: 179). Similar to the *She Figures* and CESAER observation, the proportion of women declines significantly at the top level. However, unlike the overall European pattern in other academic posts, women's representation remained stable, though from a lower base than the European average. Nonetheless, this is cold comfort for equality, as there is clearly a glass ceiling for progression to the topmost full professor position, and barriers to entry to other positions.

Figure 3: Average researcher and academic staff distribution in EUt+, 2020-21

¹³ h_da first year of reporting 2021.22 thus not included in EUt+ average Research-Academic gender distribution for 2020/21. Figure 11 shows the distribution for h_da in 2021/22.



Source: EUt+ EDI dataset

Individual institutions show variation on this general theme, though there is no exception to the significant gender gap at the top level of the academic career (Figures 4-11, all data sourced from EUt+ EDI dataset)

Figure 4:

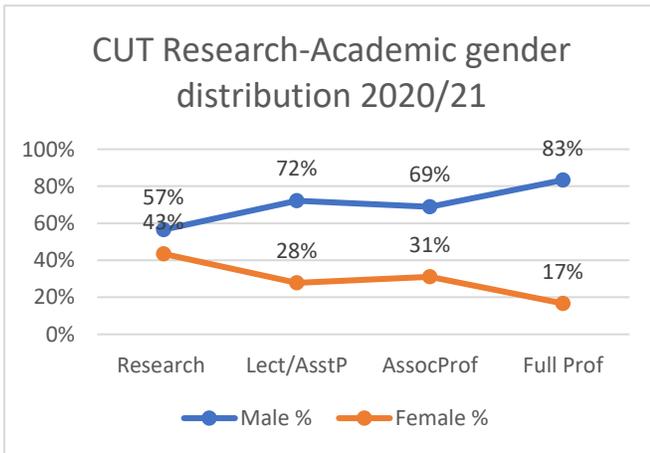


Figure 5:

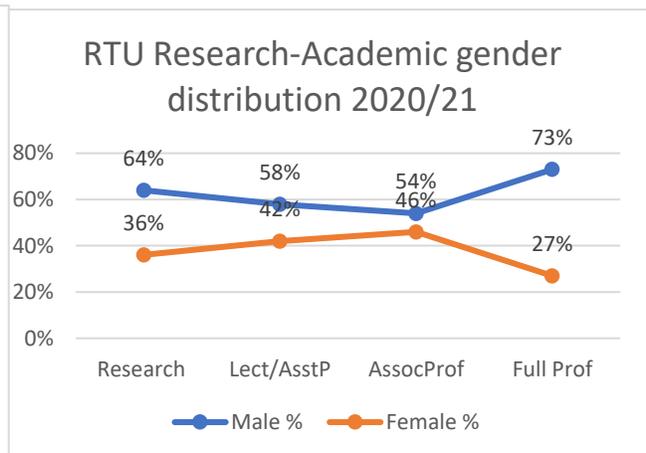


Figure 6:

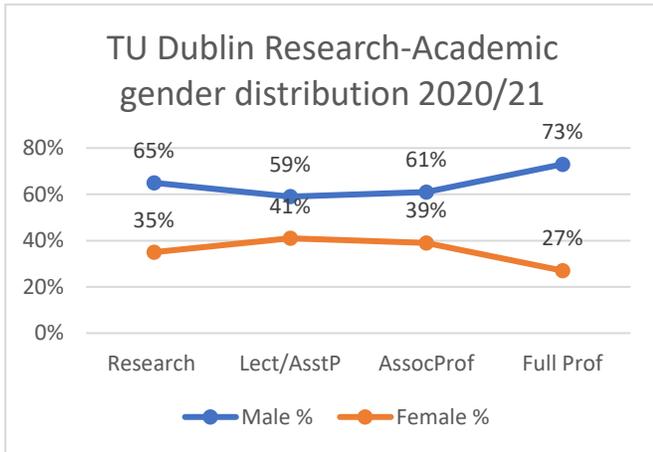


Figure 7:

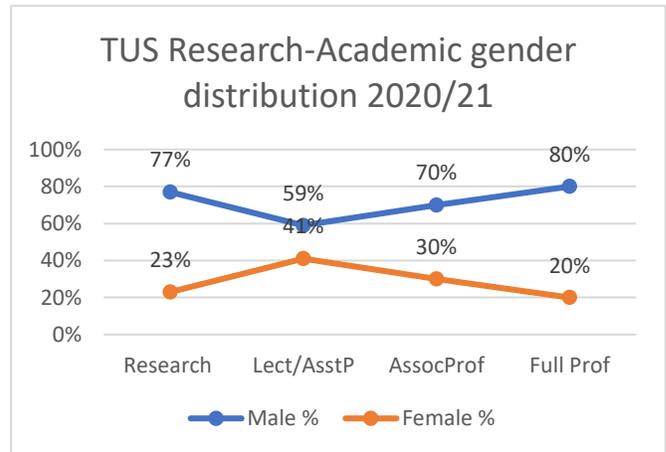


Figure 8:

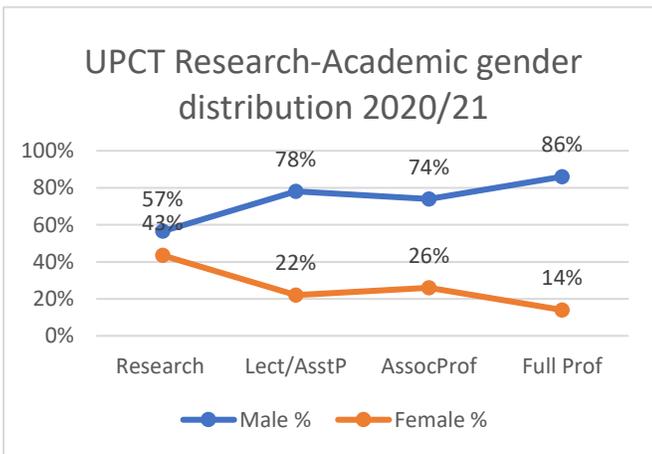


Figure 9:

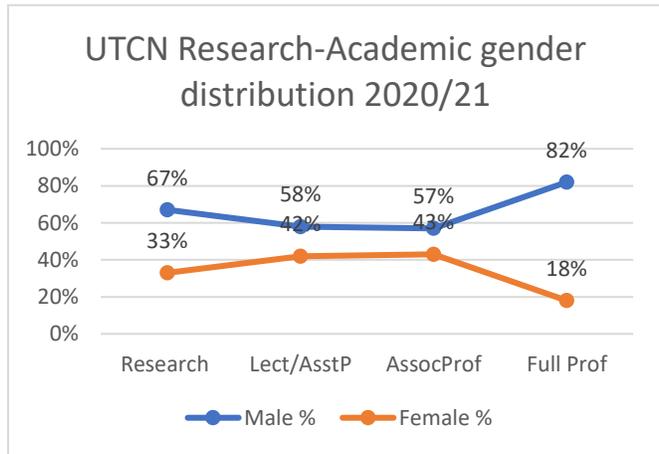


Figure 10:

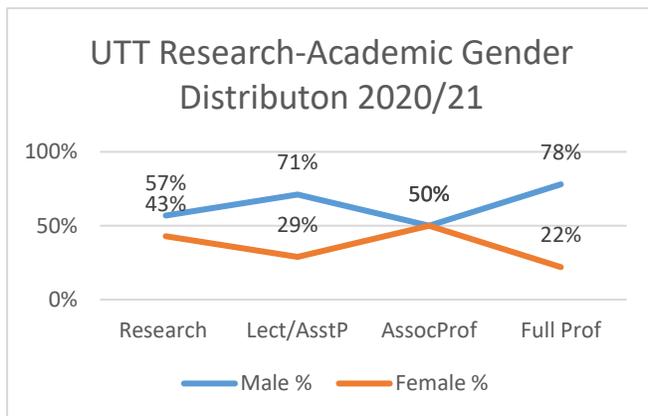
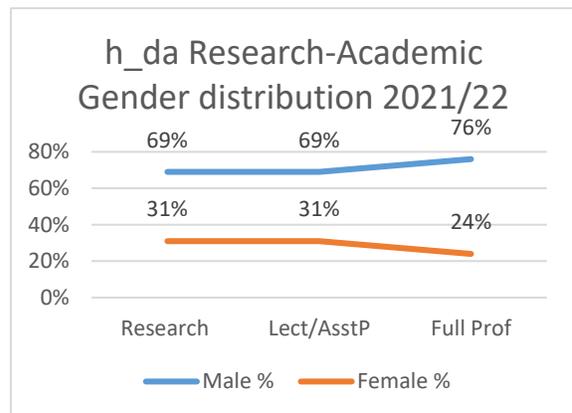


Figure 11:



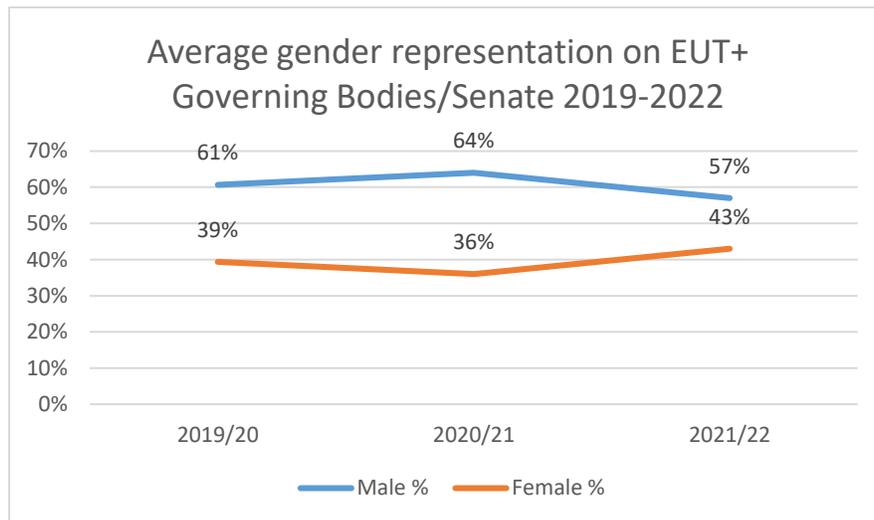
The above gender distribution of student and academic positions shows the typical 'scissors'

pattern, with a decreasing proportion of women across the career trajectory, and a corresponding increase in men. None of the EUt+ institutions exceeded the proportion for females in top academic posts, though TU Dublin and RTU match the *She Figures* average. This is evidence that the glass ceiling is a systemic institutional challenge across the EUt+ alliance – a matter addressed with concrete solutions through the partners gender(+) equality plans.

Governing Bodies/Senate

Over the 2019-22 period, the gender ratio on governing bodies of EUt+ institutions remained stable, at an average of 39% female members (Figure 10). This is within touching distance of the 40% gender balance expected in decision-making bodies.

Figure 10 Average gender representation on EUt+ governing bodies/senate, 2019-2022 .



Source: EUt+ EDI dataset

Within that average, there are some variations among institutions, with UPCT showing a lower-than-average female representation (27%), and RTU a higher-than-average female representation (54%). The CUT governing body shows the largest increase in this period, from 19% to 36% female (Table 1). The overall trend towards gender equality indicates an awareness of the significance, symbolic and practical, of a diverse decision-making body at the apex of the institution.

Table 1: Percentage of male and female members of EUt+ governing bodies, 2019-2022

	2019/20		2020/21		2021/22	
	Male %	Female %	Male %	Female %	Male %	Female %
CUT	81%	19%	77%	23%	64%	36%
h_da					59%	41%
RTU	54%	46%	55%	45%	47%	54%
TU Dublin	50%	50%	50%	50%	52%	48%
TUS			85%	15%		
UPCT	78%	22%	82%	18%	73%	27%
UTCN			63%	37%	67%	33%
UTT	62%	38%	62%	38%	62%	38%
Average	61%	39%	64%	36%	57%	43%

Source: EUt+ EDI dataset

Institutional challenges to data collection

Culture

The gender equality index of each EUt+ country (Figure 1) shows the inequality gap between women and men. This profile is broadly endorsed in an OECD index of the extent of discrimination in social institutions (SIGI), which finds that among partner countries in the EUt+ alliance, France is least likely to discriminate against women in social institutions (family, access to resources and assets, physical integrity, civil liberties) while Cyprus and Bulgaria are the countries with the most discriminatory practices (OECD 2023). This is the environment in which the EUt+ higher education institutions operate, and indicates that partners with higher levels of institutional inequality face a greater challenge to addressing gender equity issues. For example, the Bulgarian Strategy for Higher Education Development 2021-30 has but one reference to gender equality and indicates that there is gender balance among science and ICT researchers (EIGE, 2022). Thus, the wider cultural environment has an influence on the extent to which there is acceptance of gender inequality in higher education in the country and its amelioration through measures such as gender equality plans.

Structure

A variety of structural challenges feeding into logistical aspects of data collection emerged during the course of this exercise. First, it was quite common to find that data were kept in more than one office in each institution. For example, human resources held staff-related data, post-graduate offices held data on Masters' and Doctoral students, while undergraduate data repositories were managed by admissions or registry offices (e.g. TUS, TU Dublin). Thus it was quite common for researchers on this project to have multiple discussions on the need for these data as part of the development of a gender equality plan. The spread of data was complicated further in some cases by multiple campuses in dispersed locations (e.g. TUS, TUDublin) with their own record-keeping protocols. Thus, integrating data into a unified institutional profile posed challenges that called for additional resources of time and personnel unanticipated, or underestimated, at the outset.

A second common challenge was to unearth the retrospective data. This required considerable time and effort, and consumed a significant amount of person-days. For example, in CUT and UPCT, the data took a considerable time to collate, but was worth the effort as in both cases it delivered a comprehensive sex-disaggregated dataset of decision-makers and academic career profiles. An emerging challenge is for these data to be updated annually, which is required to track the impact of gender equality plan initiatives.

A related challenge was the nature of the data to be filled in the template. It became clear from an early stage that while it was relatively feasible to profile the gender ratio among decision-makers, academic staff and students, other detail was not easy to gather, for example, recruitment and appointment data, and gender pay, were variably collected. Time, and the operation of gender equality plans, may address this lacuna.

Technical

While personnel were motivated to collate data, technical challenges had to be overcome. One related to the categorisations provided in the template, which do not completely map on to the academic post descriptors in use in specific countries. Germany (h_da) is a case in point. Also as previously referred, TU Dublin adapts its Senior Lecturer III post to professor description even though they do not fully equate. This issue was a matter of extensive discussion among partners. For the most part, though, the academic grade categories provided in the template could be mapped on to academic post titles in the partner institutions and higher education systems.

A second technical issue uncovered during the task of data collection and management was the absence of software in human resources systems to harvest and report on relevant data. This is

clearly a resource matter, and one that will require a degree of systems harmonisation across partners into the future.

Conclusion: lessons learned

The collection of data to inform a meaningful analysis leading to a gender plan is a significant exercise in its own right. It calls for commitment from the highest levels to addressing gendered inequalities, and it requires time and personnel resources to gather the required data. Given that this is an additional demand on the institution, it takes time to have this factored into the workflow and schedule of the organisation. Thus, one lesson is that institutions should expect to give adequate time to this task, and to routinise it into the work schedule.

Related to this issue is the acquisition of software that can enable harvesting of such data in a routine manner. There are additional costs associated with this, and a national approach to gender data collection, if present, can assist the process.

Third, and a matter for European Union consideration, is communicating standard definitions relating to academic positions. While this is already carried out for the purposes of producing the *She Figures*, even those definitions are open to interpretation at country level.

Finally, an exogenous factor influencing data collection is the cultural climate towards gender equality. This is a challenge to the recognition of gender inequality in higher education as a problem, both in its own right as a matter of justice, but also as a matter of economic and societal development. The wider environment in which EU+ partners are situated varied considerably in that regard. Nonetheless, as contributors to thought leadership and norm-setting in their societies, EU+ partners have a genuine opportunity to advance social awareness and understanding of the advantages accruing to a more gender-equal culture.

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Policy Report
‘Re-imagining Higher Education through Equity, Inclusion and Sustainability’

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Abstract

This report gives recommendations to higher education institutions and policymakers to address issues of equality, diversity and inclusion within the Higher Education sector. The report draws on discussions and papers in the 2nd international conference on equality, diversity and inclusion of the European University of Technology. The conference (RISE 2022) addressed issues of re-imagining higher education through equity, inclusion and sustainability and was hosted by Technical University of Sofia in Sozopol Bulgaria between 1-3 September 2022.

Key words:

policy report, equality, diversity, inclusion, higher education, European University of Technology, EUt+

Policy Report

‘Re-imagining Higher Education through Equity, Inclusion and Sustainability’

Introduction

This report emerged from papers and round table discussions held in Sozopol Bulgaria in September 2022. The work draws on a wide range of expertise and reflections within partners of the European University of Technology (EUt+), external experts, students, academics and professional staff. From the work and knowledge shared in the conference we identify important themes for re-imagining EDI in higher education such as: data collection connected to needs, the fasttracking benefits that can be achieved by looking and reaching outside of HE organisations, interrupting and disrupting whiteness and privilege, positionality and reflexivity as a starting point for change and a tactic, initiatives to drive institutional practice and change on EDI, entrepreneurial learning approach to drive sustainable development goals. We make 5 key recommendations from our findings that could be useful for European University alliances and with policymakers connected to higher education.

Recommendations

Recommendation 1: Establish an expert oversight group for EUt+ on EDI data collection and usage. The expert group will have the remit to ensure that data is connected to needs and is in a format that is appropriate to address those needs.

Recommendation 2: Guidelines to be drafted at Steering Committee level on specific actions that EUt+ members must commit to embed equity and inclusion across all work.

Recommendation 3: All EUt+ members (Steering Committee, WP Leads, Task Leads at very least) will complete anti-racism training and ensure good insight on the link to positionality and reflexivity]

Recommendation 4: The emergence and support for communities of practices is necessary (UDL / accessibility tech / others).

Recommendation 5: Commitments of partners needed to review and adopt practices shared in various papers presented at the conference (e.g. inclusive library collection; embedding anti-racism in programmes; accessible technologies; etc..).

Problem Statement

Equality, diversity and inclusion is fundamental to the Vision of EUt+ where we ‘Think Human First’ and we enable all people and places to fulfil their potential. Inclusiveness and universality are at the heart of our Values. Indeed we view diversity as an opportunity and actually one of Europe’s

greatest competitive advantages. We think of it as an incredible added-value to address global challenges. In terms of the work we are doing since EUt+ started in October 2020, we have created EDI data management plans, access and widening participation plans, agreed shared principles and collected good practices. We have held two international conferences across our partners in Spain during the 2021-22 year and Bulgaria for the 2022-23 year. We have a lot of data collected and knowledge shared. We need to focus on actions. The RISE conference enhanced collaboration across EUt+ partners and demonstrated our shared commitment to improvement and change. This policy report will help others in government and in the higher education sector to understand the issues and complexities, and importantly the journey of a European alliance on EDI in terms of how EDI emerges and how European HE partners can collaborate to achieve a shared vision.

Insights from conference participants and papers

Data collection connected to needs

EUt+ has a data management plan and also a requirement that each of the eight partners in the alliance produces an intersectional equity plan that includes data collection. Challenges in EDI data collection emerge across European partners and it is very interesting to understand different legal, cultural and political climates that create challenges and limitations in the type and format of data that can be collected. The paper of Galligan *et al.* (2022) describes these challenges. Moreover this paper presents analysis of the first collaborative data collection process for EUt+. It is baseline data, but the data management plan does map out other sources that partners will be organised to collect incrementally. In particular to address challenges participants highlighted how data must be connected to needs and not just arbitrarily or because of conveniences. Qualitative approaches must also be used to capture insights on intersectionality and ways are needed to find data that can be used in the absence of official institutional data. It is also recognised that technologies are progressing in such a way that there are other means of collecting data as well as traditional ones that data providers, EDI offices and analysts should be skilled and informed about.

Collaboration and reaching outside for fasttracking

One of the real benefits of EUt+ is the opportunities to learn from each other. Committing to produce intersectional equity plans at each partner was highly ambitious and partners needed to advance quickly with systems, structures, skills and knowledge to meet the standards and commitments needed for such a public document. Of course having a plan is merely the first stage of an equality journey. Implementing plans is where much work lies. Given the newness of setting the path towards intersectional equity, participants wondered how to fast forward such plans turning them into routine. The work and insights from Gilland (2022) responded on this highlighting the need to try to influence that people finding their intrinsic motivation to advance. In particular Gilland spoke about external factors creating leverage from the outside such as from governments or the European Commission. It was also observed about the potential to building

connections between EUt+ and EUt+ partner friends. Collaboration and reaching out is an important fastracking tactic.

Interrupting and disrupting whiteness and privilege

The channels and forums where diverse voices are heard is small and a common critique from work on inclusion and diversity is reflected in the gender imbalance and the lack of visible diversity among participants. This leads to the obvious question of how are diverse voices being heard and acted upon? Interrupting whiteness for example was the theme of a keynote speech in RISE by Prof Victoria Showumni of London City University. Implicitly this means opportunity for diverse voices to participate and be present to create interruption or disruption. The EUt+ partners want to recognise intersectionality that exists at the crossroads of gender and diversity. Forums for awareness raising need opportunities to emerge from this and be participated in. If diversity is opportunity in EUt+ then what questions can be asked to understand the dynamics of intersectional advantage and disadvantage. Do EUt+ members accept historical structural power imbalances and privilege that have ensured overwhelming dominance of western white male participation in EUt+ that does not reflect the societies from where many partners emerge.

Positionality and reflexivity

No participants in the RISE conference want to create a forum such as the conference where likeminded individuals can reflect on important issues of equality, diversity and inclusion and then return back to the status quo in their day jobs. They wanted solutions to complex problems and it is important to work out on a personal and institutional level where can change begin and how can change begin. In particular all partners are in different countries with diversity across population as well as a lot of similarities. Yoana Pavlova in her keynote speech shares the Bulgarian context for example. Belonging is a rich concept and laden within the EDI context. How can students and staff feel that they belong? For researchers ethics of research may be considered with care not to impose western ideologies and ways of thinking that creates bias. There is a need to reflect that kind of ethical thinking in our practices of engaging with one another in our institution, classrooms and practices as well – not only about researchers. Time again, positionality and reflexivity is referred to as a tactic for where to start and where to begin on equality and inclusion. On a personal level asking the question of who am I? how do I show up? How do I live these values in practice. Importantly though participants recognise the importance of context reflecting on the need to ask the question Who am I in that situation that is important when working collaboratively across 8 countries.

Driving institutional practice and change on EDI

Not inconsistent with the interest in application and the applied nature of research within technology and technological universities, there was a lot of reflection and interest on how to drive institutional change on EDI in practice. How do EUt+ partners find ways and activities that they can work together. Communities of practice is one way that may exist in one partner or in different forms and structures in multiple partners but can span EUt+. Deegan describes a community of practice on accessible and inclusive technologies. Chadamoyo shares a good practice here of

developing inclusive libraries. Partners are working towards sharing ideas and practices, putting plans in place such as EDI data management plans and access and widening participation plans that creates levels of convergence. Evidence here exists from Henry et al talking about partner commitments to host monthly seminar that connect to inclusion and diversity. The needs for system wide approach was recognised embedding EDI directly or indirectly within systems and processes, but also mainstreaming or integrating lots of separate projects so that it becomes part of the daily work - day to day automatic work of our institutions, seamless and not forced. This of course requires ownership and sponsorship from senior leadership. But it also requires participatory methods – who are we planning for? Asking the people we are trying to include – going back to community. We are serious about the purpose to the plans, not just delivery for the commission. Elements and challenges of change were also highlighted noting that researchers can be agents of transition in helping to change attitudes. Researchers are studying change all the time exploring and examining cultural and behavioural contexts. Yet it is recognised that there must be a transformation from theory and discussion back to practice. Acting on change and most importantly sustaining change takes leadership, resourcing and effort.

Entrepreneurial learning to drive SDG ambitions

Important themes coming out of the European Commission in recognition of the climate crisis and the sustainable development goals more broadly were central to the theme of the conference recognising how issues of equity, diversity and inclusion are connected to climate and other SDGs. Education, and in particular higher education, is an important driver to achieve ambitions set out in the SDGs. Incorporating creativity, innovation and entrepreneurship into education enhances individual capacities to turn ideas into actions, stimulates creativity and risk-taking, and the ability to plan and manage projects. Both staff and students need to be creative and entrepreneurial to generate and put into action ideas that influence sustainable development goals. McQuillan *et al.*'s paper delves into this challenge.

About the European University of Technology

The European University of Technology (EUT+) is a European University alliance funded under the Erasmus+ European Universities initiative of the EU. The eight partners of EUT+ are University of Technology of Troyes (UTT, France); Darmstadt University of Applied Sciences (h_da, Germany); Riga Technical University (RTU, Latvia); Technological University Dublin (TU Dublin, Ireland); Technical University of Sofia (TUS, Bulgaria); Cyprus University of Technology (CUT, Cyprus); Technical University of Cartagena (UPCT, Spain); Technological University of Cluj-Napoca (UTCN, Romania). EUT+ was formed in October 2020 and is working towards preparing the future of Europe by building a pioneering institutional model for developing a radically human-centred model of technology. Inclusion and diversity are core values of EUT+ that has a vision to become an inclusive university where diversity is opportunity.

Authorship and contributions

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Section 3: Abstracts

Universal Design - Inclusion and Belonging Journey to Date and Pathways Forward

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ABSTRACT

This paper explores the growing landscape of universal design in higher education. Commencing with a universal design equity premise within student diversity and learner variability to promote inclusion and belonging. Proceeding to look at universal design within the curriculum across multiple disciplines at a local level, drawing in national policies, resources and practises, and collaborating and disseminating among international partnerships. Importantly in the context of RISE 2022 attempting to draw together existing and new universal design partnerships, initiatives, policy and practise within EUT+.

Keywords

Universal Design, Universal Design for Learning, Inclusion, Equity, Diversity

Inclusive Sustainable Teaching Approach in Dynamic Learner Experience Design

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ABSTRACT

A very important aspect for the successful use of learning systems is good learner experience (LX). Recent LX research espouses a central role of emotion for inclusive learning. For example, slight positive mood does not just make learner feel a little better but also stimulates a different kind of thinking, characterized by greater creativity and flexibility in problem solving, and more efficient decision making. The human brain is not only a cognitive information processing system, but is also a system in which the cognitive functions are integrated with affective functions. Therefore building inclusive and sustainable learning systems able to respond to learner emotions is a challengeable task.

In this paper it is described how learning is improved by the development and implementation of our framework. It enables emotional LX-oriented assessment and design of inclusive and sustainable learning systems. An emotion-oriented checklist was developed. A case study with educational toys packages confirmed the applicability of the framework for supporting LX design. A comparison of dynamic learner experience design with traditional static learner experience design in learning shows the advantages of this new technology enabling better teachers training. Guidelines and recommendations for LX design supporting rectifying issues that prevent inclusive and sustainable learning were defined. Further directions of research are discussed.

Keywords:

learning, user experience, inclusive and sustainable teaching, affective learning, game-based learning

The commitment of higher education institutions to the 2030 Sustainable Goals Agenda: a way forward with the example of Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project

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Abstract

Introduction

September of 2015 marks for adopting the *Transforming Our World: The 2030 Agenda for Sustainable Development* by the world leaders at the UN, which has become one of the most important (if not the most important) global agreements in the world history. As universities occupy a unique position within society with a tremendous importance of creation and dissemination of knowledge, they should be treated as the most powerful drivers of global, national and local innovation, economic development, and societal wellbeing¹¹. Thus, Higher Education Institutions have a critical role when it comes to achievement of the Sustainable Development Goals (and – at the same time – can greatly benefit from engaging with them).²As it can be noticed by numerous policies, strategies and activities aligned with the Agenda 2030 that have been already implemented by many universities worldwide, the tertiary education sector have already started to come on board with the SDGs. However, keeping in mind the challenge of achieving the Goals, an urgent need for exploration of the best approach of aligning the activities of the with the New Agenda (and if fact, centering their activities of the SDGs) has to be recognized and deployed by the institutions worldwide. This research will present the methodology and a holistic approach of 6 Higher Education Institutions on Sustainable Development to facilitate the accomplishment of relevant Sustainable Development Goals in Bhutan and Nepal within the scheme of The

Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project cofounded by the Erasmus+ Programme of the European Union.

Methodology

The Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project aims to contribute to increase the quality of tertiary education through a capacity building holistic approach of 6 Higher Education Institutions on Sustainable Development to facilitate the accomplishment of relevant Sustainable Development Goals SDGs in Bhutan and Nepal, modernizing partnership HEIs to be more internationally recognized and competitive. The framework developed within B+NESDG project will serve as a guide for Nepal and Bhutan to conceptualize and ensure that education is integral to any strategy and to create a resilient generation, advocating for action and the attainment of the SDGs in a holistic way.

To develop the approach, the project consortium had performed elaborate analysis of the national and international reports of implementation of Sustainable Development Goals, collated with UNESCO Monitoring Reports ³ and, for each of the partner institutions a needs analysis had been carried out to explore the following issues: (1) relevance of the project for the participant institutions; (2) the degree of awareness about SDGs; (3) the existence of ESD experiences on the institution; (4) participation in international projects in the field (5) capacity building needed; (6) study plans structure and language (7) preliminary contextual analysis (difficulties and needs);

(8) motivation to undertake the project. The target groups and their needs have been simultaneously addressed for both Partner Countries (Nepal and Bhutan) and their institutions. With the findings of needs analysis and according to the Report by UNESCO (2017) Education for SDGs- Learning Objectives⁴ to fully integrate Education for Sustainable Development, the consortium decided that the following groups of stakeholder should participate in the process: (1) students, teachers (2) local NGO; (3) ESD experts and administrative staff; (4) technical and managerial staff to support the necessary structural conditions. This holistic institutions; process enables all stakeholders (leadership, teachers, learners, administration) to jointly develop a vision and plan to implement ESD in the “whole-institution”

Table 1: Specific objectives of the project

1. Sustainable University	Capacity building to create a whole-institution approach aimed at mainstreaming sustainability into all aspects of the educational institution. Reinforcing the capabilities of the institutions to support the country on accomplishing SDGs, turning the university into an institution fostering sustainable development, inclusion and social commitment. In the case of Bhutan this project will enlarge the impact of the green schools initiative.
2. Inclusive and Equitable Quality Education	Integrating ESD within the participants HEIs through and inclusive and equitable quality educational approach. Contributing to modernize and update the pedagogical framework and to equip learners with the knowledge, skills, values and attitudes needed to be responsible global citizens.
3. Capacity building for the university community	Capacity building for the university community (technical/administrative and managerial staff, educators and students). This involves different training to support ESD in the institution and sustainable development capacitation at different levels. Educators will also be trained as facilitators of ESD learning— an action- oriented transformative pedagogy. Encouraging students (and lecturers) to undertake university values, collaboration, equality, critical thought, creativity and social commitment, thereby assisting their comprehensive education as citizens
4. Inclusiveness and mitigating gender disparities in tertiary education	Bhutan and Nepal are committed to addressing the needs of the vulnerable groups; the principle of “leaving no one behind” has given greater impetus to this cause. This principle will be a cornerstone in this project. Furthermore, B+NESDG project is strongly committed with gender equality and women's empowerment (SDG5). Thus, the inspiring principle of “leaving no one behind” has been addressed and included in each stage of the project.
5. Establishing a long-lasting international	This framework will serve as a guide for Nepal and Bhutan to conceptualize and ensure that education is integral to any

<p>cooperation and national/regional partnership to accomplish in two low-income countries (Nepal and Bhutan) the SDGs through ESD in HEIs.</p>	<p>strategy to create a resilient generation that will advocate for action and the attainment of the SDGs in a holistic, integrated manner. It will provide conceptual support for staff training, student learning and community development. It will also reaffirm the centrality of education to the multiple dimensions of sustainable development. This framework aims to ensure that citizens develop the knowledge, skills, values and attitudes to flourish in personal and professional life, learning and work environments, and to appreciate their place in a diverse world, while building and strengthening pathways to peace and tolerance.</p>
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Source: Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project materials.

To address the objectives of the Bhutan+Nepal Higher Education for accomplishing the Sustainable Development Goals (B+NESDG) project, institutions established the “Whole-University framework”⁵ through a Step-by Step methodology in the University of Bhutan (RUB) and in 5 HEIs of Nepal through the following: (1) complying the information to identify key-enabler and mapping; and (2) defining of the Sustainable Development Goals indicator panel.

Findings and Conclusion

Mapping what particular university is already doing to support and contribute to the SDGs across all areas or within specific is a great starting point for discovering possibilities for deeper engagement. It is also a powerful tool for showcasing what is already in place, as well as for identifying synergies across the university. The consortium have proposed and agreed on three approaches to achieve these results: (1) desktop approach; (2) self identification survey; and (3) keywords search. Each participating institution has complied a written report on the findings. Although, there were some differences in particular areas, the consortium agreed to create a shared definition of Sustainable Development Goals indicator panel (linked to particular SDGs and their targets) for the achievements to be measured, monitored, compared and reported in a transparent manner (where differences occurred, the indicators were treated as additional for given HEI). The final panel includes 67 shared indicators corresponding to 14 of 17 Sustainable Development Goals (with the exception for

SD1 – No Poverty, SDG 2 – Zero Hunger, SDG 14 – Life Below Water (please, see Figure 1.) The mapping exercise done within the “Step by step” methodology and it’s framework can be used by many other HEI worldwide so start their way to holistic approach for aligning the institutional strategy to the Agenda of 2020 and the Sustainable Development Goals.

Sustainable Development Goals	Indicators proposed by Universities (B+NESDG)
SDG1: No Poverty	
SDG2: Zero Hunger	
SDG3: Good Health and Well-Being	<p>Suicide mortality rate in the university/institution (per 1000 population)</p> <p>Number of prevention programs on substance abuse</p> <p>Members of the University Community covered by Health Insurance policies</p>
SDG4: Quality Education	<p>Students enrolled in the College or University.</p> <p>Students enrolled in a course at the College or University for the first time</p> <p>Participation rate of youth and adults in formal and non-formal education and training</p> <p>Diverse courses offered (diploma, undergraduate, masters and PhD).</p> <p>Qualification of faculty members (Diploma, Degree, Masters, PhD)</p> <p>Volume of official development assistance flows for scholarships by sector and type of study</p> <p>Total number of teacher mobility through international universities collaboration</p> <p>Capacity building training for staffs</p> <p>Number of academic programmes offered.</p> <p>Courses offered in an academic year (Undergraduates qualifications, Masters Courses and Doctorates)</p> <p>Students with disability status, indigenous origin, and from geographically backward region enrolled</p> <p>Number students receiving scholarship on inclusive basis.</p> <p>Number of courses in the curriculum aligned with issues corresponding to SDGs</p> <p>Number of events/activities at the university corresponding to SDGs</p> <p>Number of research projects corresponding to SDGs</p>
SDG5: Gender Equality	<p>Percentage of female chief researchers with respect to the total number of chief researchers during the academic year.</p> <p>Percentage of women in academic posts</p> <p>Percentage of female students enrolled in STEM courses during the academic year</p> <p>Scholarship to female students during admission</p> <p>Percentage of women in administrative jobs</p> <p>Number of women in academic and administrative leadership positions.</p> <p>Percentage of women on a campus (staff and students)</p> <p>Qualification of female staff members (BA, MA, PhD or no qualification)</p>
SDG6 Clean Water and Sanitation	<p>Number of Hand-washing facilities with soap and water in the College premises.</p> <p>Number of Clean drinking water facilities (booth) for staff and students in the academic and office premises.</p> <p>Number of safely managed drinking water services on campus</p> <p>Drinking water facilities</p> <p>Safely managed sanitation services</p> <p>Safe water supply within university premises</p> <p>number of safely managed drinking water services</p>

SDG7 Affordable and Clean Energy	Production of renewable energies. (presence of renewable energy sources (from outside/inside) open indicator
SDG8 Decent Work and Economic Growth	Average hourly earnings of employees, by sex, age, occupation and persons with disabilities Percentage of former graduates getting employed within a year of graduation (can you measure?) Graduates/ students/ staff starting their own business
SDG9 Industry, Innovation and Infrastructure	Amount of fund allocated by the College for the innovation, research and development Policies, events, activities and programs promoting academia-industry partnership. Collaboration / MOU with industries / organization through students' internship and research activities (UBC connected to students activities - connected to staff activities)
SDG 10 Reduced Inequalities	Number of students assisted on inclusion schemes Percentage of persons with disabilities Salary difference between employees earning highest and the lowest remuneration Number of students and staff involved in solidarity activities
SDG11 Sustainable Cities and Communities	Number of persons who benefited from affordable on-campus and/or university supported housing Number of activities conducted towards contribution to the development in the institution/university's local community and area of greatest influence Number of policies adapted towards best practice pollution control (including air) and waste management processes by the institution/university Percentage of area occupied by greenery in the university. Policy and practise devised to implement 4R (reduce, reuse, recycle and recovery) principles in University Percentage of the surface area of university central office and campuses occupied by greenery and gardens (including outdoor open sitting space)
SDG12 Responsible Consumption and Production	Policy and practise devised to reduce waste in University (energy, paper etc) Policy and practise devised to reuse resources in University
SDG 13 Climate Action	Total events, programs and activities related to disaster and climate change organized to general public Initiatives for the greenhouse gas reduction in the University
SDG 14 Life Below Water	
SDG 15 Life on Land	Percentage of Forest area in University/Institution
SDG 16 Peace, Justice and Strong Institutions	Initiatives taken by the University to reduce all forms of violence for general public Employee Satisfaction Index in University/Institution to measure inclusiveness, fairness, transparent and participative nature in decision making process - survey Number of welfare activities concerning the local community provided by the University/Institution Participation by the university community in decision-making.
SDG 17 Partnerships for the Goals	MoUs signed and maintained with national and international entities. Staff and students who have availed cultural and academic exchange program within and outside the country. Collaborative research or projects with national and international agencies. Number of collective agreements for partnership with public authorities and social bodies. Number of students and number of staff involved in development cooperation projects.

Figure 1. Panel of Indicators

Keywords: Sustainable Development Goals; SDGs; 2030 Agenda; Higher Education for SDGs; Education for sustainable development

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Gender Bias in Artificial Intelligence and its Consequences in Gender Equality and Woman Empowering

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ABSTRACT

Currently, artificial intelligence (AI) is increasingly becoming part of everyday life. At this point, AI is influencing the opinions and behavior of people in daily. Natural Language Processing (NLP) and Machine Learning (ML) tools are also rising in popularity. These phenomena may be due to the fact that this kind of development can be found in many companies and public institutions fulfilling strategic roles. In addition to the growing trend in the use of AI, the awareness of the effects of bias in ML and AI is also growing.

Academics and government officials have raised concerns about racial and gender biases in various AI-based technologies, such as internet search engines and algorithms for predicting the risk of criminal behavior. Biases in AI are often related to social stereotypes. Gender bias, in particular, has to do with preference or prejudice towards one gender over the other. It is important to be aware of gender bias because of its propagation to downstream applications. An overview of gender bias in the AI categories of denigration, stereotyping, recognition, and under-representation was given. Examples were given for each of these. Some real cases of gender bias in AI were discussed, including some in companies such as Google, Microsoft, or Amazon.

To mention some in detail, for Amazon's recruiting tool the algorithms that power AI systems are described as mirrors that reflect the unconscious biases that inform our research questions and our data. The company created the tool to trawl the web and spot potential candidates, rating them from one to five stars. But the algorithm learned to systematically downgrade women's CVs for technical jobs such as software developer. The algorithm used all CVs submitted to the company over ten years to learn how to spot the best candidates. Given the low proportion of women working in the company, as in most technology companies, the algorithm quickly spotted male dominance and linked it as a factor in success. In addition to this, the algorithm used the results of its own predictions to improve its accuracy, so it got stuck in a pattern of sexism

against female candidates. The algorithm penalized resumes that included the word “women’s” as in “women’s chess club captain” and it downgraded graduates of two all-women’s colleges. The input with which the algorithms are fed is a key aspect to be taken into account. If the set of data inputs to a model is not representative of a population, results and conclusions could favor certain groups over others. In addition, unintentional perpetuation and promotion of historical biases happen when a feedback loop causes bias in inputs or results of the past to replicate itself in the outputs of an algorithmic system. The implications of model-based bias become more

alarming with the advent of ‘auto-machine learning’ solutions which automate the process of model selection and tuning, potentially placing one black box within another

The relationship between gender bias in IA and the income gap between men and women was also analyzed. As addressed with the Amazon example, there are some roles more likely associated with masculine personalities. It is known that these positions are those who perceive on average higher salaries. To avoid gender-biased algorithms influencing decisions in our society, diversity in the area of machine learning is essential. Only 22% of AI professionals globally are female, compared to 78% who are male.

If the AI algorithms that are used every day keep reproducing the social gender bias towards these roles, closing the gap between man and woman's income will be harder. It is also worth mentioning that AI algorithms may associate housekeeping and minding tasks with females. This can also have implications for the income gap, given that reproduces stereotypes in which women are in charge of domestic, unpaid work. It is known that the new generations of young girls will not feel engaged in these highly paid positions if there is no female representation. While the AI algorithms that are used in everyday life keep reflecting this inequality, the gap will still open.

There are groups all over the globe working to find solutions for gender bias in AI. Mitigating gender bias in AI is both a sociological and an engineering problem. Engaging with social impacts at every stage of the development of algorithms is necessary, from the conception to the design, deployment, and regulation. There are different approaches for doing so. To mention some, incorporating gender theory into the approach to machine learning from textual data may prevent learning of gender bias and avoid the need to modify the algorithms; or a social-systems analysis that could ask people affected by AI systems questions about how such systems work may be a start to mitigation of bias.

The World Economic Forum addresses five main ways in which machine learning design can encode discrimination. These are, choosing the wrong model; building a model with

inadvertently discriminatory features; absence of human oversight and involvement; unpredictable and inscrutable systems, and unchecked and intentional discrimination. After model training, post-processing solutions to ML fairness can help identify key features which lead to the observed model predictions, allowing for human-level intervention in feature selection, model interpretation, and a better understanding of model performance in different clinical scenarios. The World Economic Forum also suggests principles for combating discrimination in ML. These are active Inclusion; fairness; right to understanding and access to redress.

Keywords

Gender bias; Artificial Intelligence, Machine Learning

Moral Exclusion Concept in Re-imagining Higher Education

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ABSTRACT

This paper proposes an ethical study in the field of philosophy of education. Examining the evolution of the concept of re-imagining is the beginning point. Understanding the meaning of concepts and their evolution is a classic method for humanities. The word “re-imagining” emerged in cultural studies in the 1990s. An overview of interpretations in different linguistic and social environments is offered in the article. It is concluded that the term is perceived in two different semantic perspectives. Re-imagination can be understood as reasoning or as a new vision. The meaning and its clarification in the dialogue is important for the European universities.

Moral exclusion is a metatheoretical construct. It can be useful in critical study of higher education and the imagination of its future. The concept is defined as process of setting psychological barriers of moral space by the community. Moral exclusion notion arose in psychology and organizational behavior. It is an explanatory mechanism in the perspective of organizational ethics and the well-being of every community. In the frame of higher education, moral exclusion can lead to feudal encapsulation and closure within its own discipline, specialty, major, or faculty.

In applied ethics the concept of moral exclusion was used for the first time in environmental debates. The term is functional also in interpreting the differences between patent and innovation in legal and ethical regulations of biotechnology. In any group of stakeholders it would be beneficial to view actors' positions through the lens of moral inclusion/exclusion. The later is connected with soft ways of separation of individuals and groups inside and outside, proper and other.

The questions to discuss are what constitutes such a process and what are the behavioral symptoms. Usually the limits of inclusion/exclusion are defined based on principles of universalism or fairness. In this regard, it is interesting to consider how higher education can

change students' perceptions of universal justice and social justice. The teaching of humanities has a special responsibility for this. There is great pressure to reduce the number of hours for humanities at the expense of narrow specialized training. This creates the preconditions for limiting the students' worldview.

The report goes on to show what moral exclusion at various levels is and how to interpret examples of such exclusion in higher education. At the level of behavior in a community moral exclusion is an aspect of improving the group ethical performance. Moral exclusion is an aspect of the ethical conflict management. Recognizing steps toward potential conflict is important for maintaining moral inclusion in the community. Based on literature and a comparison between decision making in business organizations, public administration, and academia, the following signs of moral exclusion are defined:

- applying double standards; setting criteria for exceptions from the rule;
- dehumanizing - denying of one's rights and dignity; minimizing or ignoring the potential benefits for any interested party;
- normalizing imposed decisions and aggressive communication;
- de-individualizing - neglecting personal participation and its importance;
- blurring of responsibility - denying personal responsibility under the pretext that it is only organizational one.

These behavioral manifestations are often presented in practice as making timely, expert and managerial decisions. Behind the actions that we consider opaque, bureaucratic, or biased lays the process of moral exclusion.

For a community such as department or faculty, it is essential to see the differences between active exclusion and omission. Two forms are viewed as ethical danger signs in these group relations. Groups tend to bring out the best and worst moral in us. The worst examples of behavior arise out of moral exclusion. The list of this type of conduct includes moral stereotypes, labeling, replacing goals and moral values, prolonging, postponing, aggressive style of conflict resolution, etc. Such behaviors are intensified when individuals from different departments, specialties and professions come into contact. Similar reactions can be seen in organizational communication between representatives of various professional communities (academic staff and administrators, lawyers, engineers, accountants, etc.)

Moral exclusion is manifested in the fact that some persons in their professional roles are invisible to others in the academic community. First of all, the comparison with an invisible college is still popular and productive. The lens of moral exclusion permit the viewer to focus on

individuals and groups who are socially constructed as invisible, for example, the "invisible faculty" of higher education. Examples of invisibles are research associates working on projects, administrators, maintenance workers, students when they are passive and do not attend lectures regularly. Within higher education institutions, employees in the offices of the faculties and technical staff are often perceived as morally excluded. This invisibility of bureaucratic work for professors can be a barrier to organizational performance. It sometimes becomes the opposite of itself, i.e. - the so-called administrative evil embodiment.

Research shows that moral exclusion of invisibility has social psychological implications – poor health; sense of identity, stigma; accumulating deficits, disguised forms of protest and sabotage (PsychoInfo Database Record, 2020). Two years of pandemic experience have made all of us invisible and changed the perception of connecting to others. The transition from distance learning to real face-to-face communication is not easy. Higher education is searching new hybrid forms. In this sense, the signs of moral exclusion are changing in the new communicative context.

There is a new research field of the impact that higher education has on students' moral attitudes and their change. The results indicate that the university liberalizes ethical concerns for most students, but it also promotes moral absolutism rather than relativism. Studies find that higher education encourages individuals to move from basing their moral judgments on personal interest and blind allegiance to social norms toward more critical and universally applied principles of justice (Mayhew et al. 2016). This focus on general justice bears a resemblance to liberal concerns with social justice, giving credence to the idea that the university liberalizes morality. These effects are strongest for individuals majoring in the humanities, arts, or social sciences, and for students pursuing graduate degrees. Some studies have identified typical demoralization pathways, namely burnout, boredom (acedia), and the disintegration of idealism. It is interesting to know and rethink that for many specialties demoralization occurs in the third year of study. This research consensus should be known in the academic community and has to be taken into account in any change in curricula.

Higher Education's influences on students moral orientation are quite controversial. The changes are determined by social, political and cultural features - for example, for the United States the moral attitude changes in universities are analyzed through the construct of cultural wars (Miloš Bročić, Andrew Miles 2021). Some incidental and subjective observations about changes in moral views of Bulgarian students make us think that conservative, traditionalist and patriotic views can be strengthened. In this article the intention is to summarize the available

results for changing moral attitudes of Bulgarian students, comparing them with those in other European universities. The needed academic innovations of the curriculum aim to foster ethical students with a positive attitude towards different kinds of diversity. The challenge for Bulgarian universities is to ensure advance transformativeness for attitudes of young generations towards moral inclusion.

General demoralization and career burnout are stronger in social and human studies than in economics and engineering. There are similar differences in the work of lecturers of humanities in technical higher education institutions. Liberal arts professors in a technical educational institution could have a pathological work environment, which leads to situational depression and is responsible for a conflict both with the personal sense of professional identity and with the conception of their role in the university community. For individuals the lack of adjustment to workplace, offered by universities, is equivalent to self-destruction.

As a whole, the pluralistic perspective (i.e. the recognition of legitimate participation of various actors) counteracts the exclusion. Moral exclusion is a consequence of rationalization. We are always looking for the moment of balance and harmonization of desires and pretensions with reality and with other individuals. At this point care, as an ethical approach, is indispensable. Moral inclusion is hardly possible without practicing the ethics of care.

Moral exclusion at macro social level is hidden behind complex and protracted problems. Understanding moral exclusion in the community protects against arrogant stereotypical preconceptions. Professional pride and suspicion sometimes can be interpreted as an exclusion. In the context of a technical university, professors of humanities and economics may feel morally excluded compared to professors of engineering fields or STEM.

Moral exclusion is an aspect of disagreements and contradictions among participants in the institutional decision making process. A line of disagreement between participants (team) could be correlated with a unifying vision of the university as a transformative force for students and society. It is important to know this phenomenon in order to improve the skills for making effective and ethical decisions in the academic community.

Keywords

moral exclusion, re-imagining, attitudes, invisible, demoralization

Developing inclusive libraries: a case study

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Abstract

Libraries have a responsibility to organise and disseminate information for the benefit of their stakeholders. Academic libraries have a responsibility to ensure students get access to the information they require to make sure they succeed in the studies and research endeavours. This paper discusses, the expanding shift in academia towards equality, diversity, and inclusion (EDI). The paper looks at the history of libraries, briefly examines the role of collection development in academic libraries and how this shift impacts it and the projects that were carried out in TU Dublin Libraries. Without student input and reflections, the project wouldn't have succeeded, thus comments by the students have been included as well as some ideas of how libraries can keep EDI work progressing in the future.

The library is the heart of the university. As it disseminates information to every part of the university it has the responsibility to share good quality, fair, inclusive and balanced knowledge to scholars so they make the best of this world.

This paper looks at the history of libraries and their Eurocentric and colonial past and how to unshackle these burdens to move into a more inclusive information dissemination that can be supported by an inclusive collection development policy as well as an inclusive information literacy policy. When everything is put together it ensures students, staff and researchers will get a holistic and inclusive service.

This paper looks at the experiments that were conducted with students initially from one campus and then across the university where students were taken through 5 weeks of reading group where they read curated articles dealing with History of racism, Institutional racism. Systematic racism, Racism in technology and personal racism experiences. An inclusive collection was created to ensure students and staff can access required materials and to expand their racial awareness and the impact continuing with the status quo has on society.

The paper also includes some of the feedback from students who participated in the experiment in their own words how going through the experiment impacted them and how they learn and research.

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Building Learning Communities: Initiating and Developing and Accessible and Inclusive Technology Community of Practice

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ABSTRACT

Introduction

Communities of Practice (CoPs) are naturally forming groups of individuals who come together through a shared passion or goal and learn collectively by reciprocating knowledge and experiences (Lave & Wenger, 1991). Communities of Practice are particularly suitable for the rapid and comprehensive adoption of innovative approaches to teaching and learning, as well as organisational transformation in Higher Education.

Assistive technology is any piece of equipment, software, or product system used to increase, maintain, or improve the functional capabilities of persons with disabilities (World Health Organisation, 2011). In the context of educational technology. In the context of education and access to learning, assistive technology refers to any technology that helps students and staff to function within the learning and working environment. In present times, it is generally acknowledged that assistive technologies and mainstream technologies are converging. Applications originally developed as AT, such as speech recognition, have crossed over into the mainstream, while mainstream technologies are now being used as AT (NCSE, 2016).

In 2021, a Community of Practice in Assistive and Inclusive technologies was established at Technological University Dublin, Dublin Ireland (Harvey, Dodd, Deegan, McMahon & Williams, 2021). This community aimed to inform and empower the use of ubiquitous Assistive Technologies (AT) that can be found throughout all commonly used software and hardware platforms and devices to enhance teaching and learning in higher education at TU Dublin. This community was initially focused on the creation of an accessible, inclusive and multi-platform, student-centred resource. This resource defines, explains, and supports technology and how it

can be embedded and used to support and enhance educational tasks. The primary aim of the community is to reduce perception of AT as a niche element of technology and promote the concept of 'AT for All'. It also aims to advise, develop, share and expand expertise on the use of assistive technology in education, as well as to promote a general culture of accessibility in our work practices.

Assistive Technology, Accessibility and Universal Design for Learning

The CoP has also identified Universal Design for Learning as a priority element within the wider academic community, with resources to reflect this highlighted in the community's central online resource, www.tudublinassistivetechology.ie, as well as an AT Toolkit and additional technical resources. As part of this CoP, physical technology resources are also being procured for an inclusive technology library area, as part of the university's library loan catalogue.

This CoP has led the design of additional accessibility resources such as the TU Dublin THRIVES accessibility framework, an open-source resource that serves as a guide for the accessible development of all digital resources/assets (TU Dublin, 2021).

Communities of Practice: Definition and Characteristics

The concept of the Community of Practice first entered academic dialogue in the 1990s (Wenger, 1998), and then later on in the areas of knowledge management and organizational learning (Wenger, McDermott & Snyder, 2002), public governance and administration, and teaching and learning in Higher Education (McDonald & CaterSteel, 2017). At its simplest level, a 'community of practice' describes a "group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger-Trayner & Wenger-Trayner, 2015).

The description of a CoP as a means for collective learning and knowledge sharing is supported by a set of assumptions about the social and situated nature of learning that enhance the acquisition of knowledge through a process of social participation (Brown, Collins & Duguid, 1989) over transmissive modes of instruction or isolated study. There are many definitions of Community of practice. While each CoP tends to have its own unique catalogue of experiences and problem-solving routines, Wenger-Trayner and Wenger-Trayner (2015) outline three "crucial characteristics" of any CoP, which they describe as "domain", "community", and "practice". "Domain", firstly, refers to the "shared domain" of concern or practice that initially impels members to come together, such as – in this particular instance - a common interest in

enhancing teaching and learning through use of assistive and inclusive technologies. Secondly, “community” denotes the mutual engagements, activities and social exchanges that characterise the CoP, comprising the variously formal and informal discussions, workshops, knowledge-sharing events, and regular interactions in which members “interact and learn together”. Finally, “practice” signifies the result of this joint enterprise evolving from a community of “interest” to a community of “practice” to develop a “shared repertoire” of resources including “experiences, stories, tools and ways of addressing recurring problems” that might be said to constitute a community’s “shared practice” (Wenger-Trayner & Wenger-Trayner, 2020).

It is supposed that while a CoP’s domain or common interest initially draws together participants, and its community sustains their “fellowship and learning”, it is its “practice that crystallises these experiences and shared knowledge” (Mercieca, 2017, p. 11).

Research has shown that CoPs (Wenger, 1998) can be a catalyst to facilitate learning in

organizations and to encourage the engagement of often time-constrained staff with professional and academic development opportunities (Lantz-Andersson, Lundin, & Selwyn, 2018; Patton & Parker, 2017) that might otherwise elude them.

Though originally imagined as “self-emerging and self-organizing organic networks” (Zboralski & Gemünden, p. 221) rooted in the informal, social learning environments of traditional apprenticeships (Lave & Wenger, 1991), the CoP model has come to be used more recently in an intentional and applied sense to denote planned efforts to harness collective learning and knowledge sharing to achieve defined strategic objectives. Yet, Trust (2015) suggests that members do not necessarily learn in a planned way. Rather, they learn through observing each other’s actions and interactions, engaging in conversations and socially constructing their knowledge. This has certainly been observed to be the case in the CoP described here. The CoP has organised several workshops and live, online technology meetings, workshops and demonstrations in the past year that have been well attended and supported by TU Dublin staff. In addition, staff and students alike have contributed to the online resource via direct feedback, requests for resource support and specific themes (for example, one devoted specifically to language supports)

Types of Communities of Practice in Higher Education

In a 2012 report on building and sustaining leadership capacity for CoPs in Australian Higher Education, McDonald, Star, Burch, Cox, Nagy, Margetts and Collins (2012), three types of CoP were identified, “Organic”, “Nurtured/Supported”, and “Created/Intentional”. Here, organic CoPs

were those that were “bottom-up” and “self-determined”, emerging naturally out of the needs of university staff without formally turning to the institution or its management for support, while “nurtured/supported” CoPs were similarly established and often steered by staff but with some degree of institutional or senior leadership support or influence. Where this latter type of CoP was concerned, the “timing for outcomes” is usually self-determined but influenced to an extent by the requirements of funding. The authors also described a type of “created/intentional” CoP, convened from the top-down, with its agenda and outcomes aligned with specific institutional needs or strategies.

In terms of its position along this range from organic through supported, to create the CoP described here, this CoP can be described as having emerged out of a collective initiative of TU Dublin staff and students. It was facilitated in part by the university’s IMPACT project funding (<https://tudublinimpact.wordpress.com/>) and, by extension, national priorities for the enhancement of teaching and learning in Irish Higher Education. The work of the CoP is also supported by seed funding from TU Dublin’s EDI Directorate.

Benefits to Higher Education Organisations

Accessibility enhancements and features in our desktop and online applications are becoming more commonplace, particularly in the recent past during the Covid-19 pandemic. This CoP has

been particularly timely as it was established with the intention of drawing together staff from across the university with the aim of maximising current teaching, learning and assessment strengths, highlighting and enhancing existing practice, and promoting student-centred supports and innovation with a central theme of ‘Accessibility by Design’.

This community was characterised by the diversity of its membership, with colleagues from academic staff, the library, IT services, Access services, Disability services, Staff Development and the TU Dublin Ability Network which comprises a very diverse range of staff and some students from all of these areas. The student input to the CoP has proven to be a very valuable one, with a student co-leading the CoP and informing, assisting with input and shaping the resources and case studies that are part of the resource.

In the broader literature on organisational learning, Wenger and Snyder (2017) point to evidence that CoPs can make demonstrable contributions to organizational goals and performance, “promote the spread of best practices”, and meaningfully “develop people’s professional skills” (Wenger & Snyder, 2000). Research has also shown that CoPs can be a catalyst to encourage

the development of time-constrained staff with professional development opportunities (Lantz-Andersson, Lundin, & Selwyn, 2018; Patton & Parker, 2017).

Conclusions

In a short period of time, this CoP has engaged academic, non-academic staff and students at TU Dublin in generating and supporting a central and accessible resource to promote accessible educational technology use. It is concluded that this CoP model has numerous benefits to the organisation, some of these being the highlighting of accessibility issues in Edtech and the practical means to address these, the diverse nature of technology that is available and how it may be used in teaching, learning and working in higher education. In addition, the CoP model is a valuable means for the prompting of the professional skills development of all staff at an organisation, with the concomitant organisational change and transformation likely to follow.

Keywords

Accessibility; Inclusion; Community of Practice

To Enhance Neighbourness in Multicultural Learning Environment

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ABSTRACT

Globalization and digitalization have brought people together, allowing students and teachers to conduct their studies and research abroad. Thus, the study groups are mixed with different nationalities, cultures and learners. While mixed study groups are getting common in every University, teachers need to think how to take into account different learners and their cultures while planning the teaching strategy for the next semester. WeLearn project aims to tackle this topic in terms of pedagogical and technical aspects. This is done by developing online and offline toolkits to assist teachers to find the best teaching approach for multicultural learning environment, and thus to ensure that all the students are learning.

WeLearn consortium has put these tools in the practice by testing them in a real learning environment. Teachers were given freedom to select the most suitable toolkit (Online or offline) and test the tool(s) with students. Several different tools were tested in several different European Universities (*WeLearn consortium partners). To improve the toolkits and to find how well the tools were working in an actual working environment, results and feedback were collected by developing two tailor made questionnaires.

The questionnaires were divided into two phases. The start phase collected both quantitative and qualitative data about the student groups, tools planned to be used, approaches with the students and expected results. The second phase of the data collection was implemented after testing the selected toolkits, this phase focused to have deeper understanding how the tools were working, how students were reacting and overall did the tool(s) reach better pedagogical environment for students and the teacher.

The results received are indicating that tools were easy to use and thus, simply to integrate as part of the study course. Although the toolkits were easy to use, several replies indicated how time consuming some tools really were, thus making them ineffective in terms of time consumption. Although reviewing process was time-consuming, majority of the respondents were indicating that by using the toolkit(s), teachers were able to increase students' self-awareness, become aware of intercultural communication issues. Thus showing that by using tailor made tools, teachers are able to work in multicultural environment and take into account different cultures and learners.

The role of Makerspaces Capturing Student Voice and Creating Connections and Belonging through Universal Design

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ABSTRACT

This paper explores two decades experimenting building connections, relationships and learner belonging through makerspaces in higher education. Commencing with a universal design premise of student diversity and learner variability with an aim to create inclusion and belonging. The focus on using artefacts created in makerspaces to innovate and represent the individual and collective student voice. Evaluating learner responses and making recommendations to further enhance student engagement and self effaced through makerspaces and universal design.

Keywords

Universal Design, Universal Design for Learning, Inclusion, Equity, Diversity

Promoting Intercultural Awareness and Good Practices in Higher Education: Migrant Workers, Hospitality and How to Build an Equitable and Inclusive Environment in University Spaces

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ABSTRACT

This research looks to provide an overview of experiences and trajectories of migrant workers in hospitality services in the universities, focusing on investigating cultural differences and communication barriers they encounter, with a case study of Technological University Dublin (TU Dublin) campuses in Ireland. Transformative education plays an essential role in tackling inequalities, bias, and exclusion of minority groups in different spaces, and universities are being instrumental in providing a model of inclusion and diversity to society. Universities are considered key institutions that can further such purpose of supporting the establishment of diversity and inclusion, as they can provide not only social recognition but promote ideals, establishing spaces of learning and living together (Gertz et al, 2018). A university as a culturally inclusive environment can encourage individuals to be proud of their perspectives, to be willing to share them with others and to contribute to a given social context (Azmat, Fujimoto & Rentschler, 2015).

Investigating migrant workers in food and beverage services university, a group that has rarely been studied in hospitality and education studies (Gajjar & Okumus, 2018), we look to understand, build and promote a more diverse environment in higher education. With an intersectionality approach, this paper also investigates specific challenges female migrant workers may face, as the hospitality sector is highly gendered (Rydzik et al, 2012).

Implementing good practices in higher education is essential in a moment of reflection of the importance of cultural inclusion and diversity actions in the educational sector, that historically has been an important driver for societal changes. In this regard, this paper looks to explore how we should think of a more equitable culture in universities' experiences and spaces, investigating how students, staff, workers and the communities that share this same space communicate and are perceived. Additionally, migrant workers are an essential workforce for the tourism and hospitality industry, although usually seen as an unskilled workforce and therefore subject to poorly paid and seasonal jobs (Alberti, 2014; Treuren,

Manoharan & Vishnu, 2021b; Wright & Clibborn, 2019). This paper also reflects on how critical it is to rethink practices of this industry that need to address more inclusive actions.

Summarizing, this research seeks to:

Raise awareness on differences in communication and expression of cultural values that migrant communities have, seeking to facilitate the communication and recognising the multicultural context of the university.

Understand migrants' experiences, motivations and challenges in working in hospitality in Ireland, especially for female migrant workers.

Gender Action Plans: Can External Funding Programs Have Lasting Effects?

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ABSTRACT

This paper is based on the critical reflections of an experienced practitioner in the field of EDI (equality, diversity, inclusion) in higher education institutions. It looks at whether and how funding programs that are external to higher education institutions can have a lasting impact on how participating institutions evolve. As a case study the paper shines a light on a Swiss federal government programs that aimed to advance the gender equality agenda in higher education institutions between 2013 – 2017 and 2017 – 2021 respectively. In particular, the way that the University of Zurich (UZH) engaged with the programs is used to arrive at an empirically founded perspective on the usefulness of time-limited, external programs aiming to drive lasting change within the participating institutions.

The federal programs at the core of this paper have proven to be very important for the EDI agendas within Swiss higher education institutions. Since these programs started in the year 2000, they have provided “seed funding” for the establishment of equality offices and they have enabled institutions to carry out projects, often on a pilot basis, that likely would not have taken place otherwise. Although many or most of these activities were undoubtedly of very high quality, the question arises whether temporary, external funding can have lasting effects within higher education institutions? Equality is, after all, a permanent, ongoing commitment complete with constitutional and legal obligations on the part of higher education institutions as public bodies, employers, and places of research and study.

Indeed, Switzerland has a history of multi-annual federal government programs conceived to drive change in the higher education sector across a range of areas such as education, doctoral training, Open Science, digitalization, and equalities.¹ In the Swiss context, thus, thinking about the long-term effects of such programs has a clear significance for their relevance. Beyond that, and specifically in the EDI field, the recent introduction of gender equality plans (GEP) as an application eligibility criterion for the European Commission’s research funding program Horizon Europe arguably makes the paper’s central question relevant and topical beyond the Swiss setting.

The key point of this paper is to show how external, time-limited funding programs can have lasting effects within a higher education institution if the institution's driving force behind participation in the program is aligned with and contributes to the institution's own, internal agenda.

Regional Traditions and Practices of Marriage

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ABSTRACT

Marriage is a social construct that involves the relationship between spouse and wife, responsibilities, and rights. Historically, marriage has been used as a mechanism to control all citizens' behaviour and it's been treated as a matter of common interest. In the institution of marriage women and men have strictly determined roles. The role every one of the spouses must conduct is prescribed by the traditions based on religious practices. Man and woman's roles refer to different rights and responsibilities in marriage. Traditionally woman is responsible for taking care of children and the man is recognized as a breadwinner.

This article examines some traditions and practices of marriage worldwide and analyses how the institution of marriage has changed. Which are the factors that transformed marriage from a public institution of control to a personal issue and way of expressing individuality.

Keywords

marriage, woman, men, tradition, change