eISSN 2732-3781

The HUNGARIAN PACT4YOUTH

JOURNAL OF SKILLS DEVELOPMENT

VOL 4. No.1

GILE

GALVANISING INNOVATIVE LEARNING ECOSYSTEMS

2024

Volume 4 No. 1 (2024)
eISSN 2732-3781
DOI: https://doi.org/10.52398/gjsd.2024.1

Responsible Publisher: Pact4Youth Association (Ifjúsági Paktum Szövetség)
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e-mail: gjsd@gile-edu.org

GJSD. Sharing today. Shaping tomorrow.

AIMS AND SCOPE

'Personal' or 'transferable' skills (also variously known as 'soft skills', '21st century skills' and 'employability competences') and the capacity to develop them in others are crucial to success over an individual's working lifetime. This has never been more true as the revolution spearheaded by Artificial Intelligence now spreads throughout society. The empowerment of adaptable and resilient young adults capable of thriving in any environment is now of undeniable importance.

To that end, the GJSD aims to be an essential resource for all those whose work contributes to this global effort. Our **open-access** published content can be utilised directly by educators, researchers, coaches, corporate learning and development practitioners, and anyone with a stake in the journal's mission who seeks high-quality, thought-provoking content and strong, actionable insights.

We welcome high-quality, relevant submissions from academics, researchers, young people at the start of their careers, employers, training specialists, career counsellors, citizen scientists, activists, social entrepreneurs, businesspeople who are interested in social issues affecting young adults, and policy makers. We champion contributions that yield insights into the world of 'Skills Development' affecting **young adults** in both educational and human resources domains. We also support early career researchers whose research interests align with our mission with the option to request a review that takes their needs into special consideration. Master's and PhD students, postdoctoral researchers and young professionals may all submit papers this way, and can expect a speedy, fair and constructive review process that focuses on coaching the writer.

GJSD features two main sections: **Research and Perspectives**. Under these sections, Authors can choose from various sub-sections.

'**Skills Development (Education)**' features research papers relating to Ensuring Ongoing Employability; Cultivating a Reflective Mindset; Training Leaders of the Future; Innovative Skills Assessment Methods; Emotional Intelligence and Positive Psychology; Relationship Skills and Social Capital Formation; Intercultural Awareness; Teacher and Lecturer Professional Development; and any other topic deemed relevant.

Under the '**Skills Development (HR)**' section, we seek research papers relating to Career Development & Career Sustainability; Diversity, Equity, and Inclusion; Employability and Learning; Skills Assessment; Workforce Talent Management; Learning and Development; Leadership Development; Emotional Intelligence and Positive Psychology; Interpersonal Skills and Employability Capital Formation; Intercultural Awareness; and any other topic deemed relevant.

Relevant contributions from any academic or professional discipline are welcome. We accept submissions of empirical papers adopting quantitative, qualitative, and mixed methods. We also encourage submissions of full-length theoretical, literature review, and citation networking mapping papers.

Quality data-based essays that document an attempt to solve a skills development problem and case studies - both real and conceptual - that relate to the journal's broad remit are also welcomed in a **Case Studies** section. Meanwhile, under the section '**Action Research**', we welcome accounts of 'learning by doing' which provide practical insights for improvement in a particular setting.

The GJSD aims to bring together academics, industry, citizen scientists, and society as a whole. Our **Citizen Science** section thus features articles written by members of the general public who have worked alongside professional researchers on a collaborative project touching on areas where young adults are important stakeholders from a skills perspective.

'**Food for Thought**' (where contributions may come from anyone) and 'Guest Column' (where contributors are invited) sections feature informed - and not necessarily academic - commentary from writers who wish to educate and engage our journal's readership with their opinions.

A section called '**Practical Proposals for Social Impact**' meanwhile invites submissions from activists, social entrepreneurs, socially aware members of the business community, and others with an academic or policy background with a keen interest in social or environmental issues where young people can be viewed as important stakeholders from a skills perspective. We encourage authors to identify and discuss an existing policy or social challenge affecting young people and either describe the results of an innovative attempt to solve it (even if only partially), or offer new directions that may be taken towards addressing it.

Under the section '**Extended Essays**', the GJSD provides a more diverse and engaging mix of longer articles. The pieces should be able to make a significant contribution to the field of skill development and the ideas presented should be new and innovative.

Special review option: **Early-career researchers**: The GJSD also welcomes quality, relevant research articles from Master's and PhD students, postdoctoral researchers and young professionals, who may request an 'early career researcher review' if it is desired. We offer such contributors an efficient and free-of-charge route to publication. They can also expect to receive constructive and detailed expert reviewer feedback that aims to grow them.

EDITORIAL

Welcome to the next chapter of the GILE Journal of Skills Development (GJSD), where we not only share insights today, but actively shape tomorrow. Our slogan, *'GJSD. Sharing today. Shaping tomorrow.*' encapsulates our commitment to not only disseminate valuable knowledge, but also to drive meaningful change in the skills development landscape. With the recent transition to the stewardship of the Pact4Youth Association, our journal is ready to continue its mission to foster and promote transferable (personal or employability) skills among young adults. The Pact4Youth Association's mission, which focuses on creating services that promote social development through the skills of young workers, resonates deeply with ours.

In today's world, where personal skills are paramount, especially with the rise of Artificial Intelligence, our mission to empower adaptable and resilient young adults is more relevant than ever. In Volume 4 Issue 1, we are very excited to present a selection of thought-provoking articles covering different dimensions of academia and professional development.

GJSD features two main sections: "**Research**" and "**Perspectives**". Within these sections, our readers can choose from a variety of topics. Let's delve into what awaits our readers:

Mr Norbert Griszbacher examines the impact of artificial intelligence, particularly ChatGPT, on academia, urging us to explore both its potential and limitations. This paper offers a balanced view, exploring both the opportunities (e.g., productivity gains) and challenges (e.g., unknown threats) of this AI tool in education. Additionally, the paper offers future research directions to guide responsible integration of AI in academia.

Dr Ray Sylvester and **Dr William E. Donald**'s paper explores the Personal Brand V.A.L.U.E. Career Development Tool, revealing a strategic approach to career development with practical implications for both individuals and organisations. Whether you are seeking personal development or want to help others, this paper offers a fresh perspective and potential tools for career success based on a real-world case study. This research offers valuable insights for you on how you can learn to use the V.A.L.U.E. framework to navigate your own career journey, and for career professionals on using the tool to support students and employees during career transitions.

Mr David Michelini and **Ms Monika Kristl Volfová** highlight the concrete benefits of training programmes. This information can be valuable for business leaders looking to invest in effective training strategies for their workforce and for researchers and policymakers interested in understanding the factors influencing training participation. This paper reveals a striking difference in employee participation rates in the Czech Republic and Hungary and it delves deeper into reasons behind this gap and explores surprising findings regarding the main skills targeted in training programs.

Dr Gabriella Horváth-Csikós presents the results of a collaborative Virtual Exchange project, highlighting the transformative power of international student collaboration. The paper examines how the project facilitated intercultural development and international experience for students through collaborative tasks, going beyond knowledge gained from traditional sources. The paper offers insights into the project's implementation details and student experiences.

Dr Yuliya Shtaltovna, Dr Vivianna Rodriguez Carreon, Dr Fredrik Lindencrona, and **Dr William E. Donald**'s paper explores cognitive skills within the framework of the Internal Development Goals, emphasizing the role of universities in preparing students for complex challenges. It argues for embedding critical thinking and other cognitive skills like systemic thinking into the curricula. The paper emphasises critical thinking, complexity awareness, and systemic visioning, explaining their importance in tackling complex problems, and it discusses how these skills, combined with openness and a growth mindset, are crucial for navigating complexity. This research can guide universities to empower students with the inner development and cognitive skills needed for sustainable careers and sustainable development.

Mr Ian Fellows's extended essay explores the role of universities in equipping students with the skills essential for navigating today's volatile job market. This essay examines the tension between supporting students and fostering necessary workplace skills like resilience and adaptability. It argues that universities should support students facing challenges and ensure they possess the necessary skills and resilience to thrive even in challenging environments without creating dependency on that support. The essay closes on a hopeful note, suggesting that carefully designed curriculum learning can enable otherwise disadvantaged students to harness desirable attributes like grit and context adaptation, which are advantageous in a volatile labour market.

Ms Christina Muzzu, Dr Nataliia Pyliachyk, and **Dr Nataliia Ivanotchak** demonstrate the transformative potential of cross-cultural education initiatives in the midst of global challenges through the Digital Bridge Project, which was designed to strengthen cognitive resilience in Ukrainian and EU students amidst the 2022 conflict. This paper offers a valuable case study demonstrating the project's effectiveness and its potential for adaptation in various educational contexts. It highlights the importance of critical thinking and empowerment for young people navigating a rapidly changing world.

Dr Daniel Xerri explores Thinkerly, a fictional B2B firm offering critical thinking training. By examining a hypothetical company, this conceptual case study offers valuable insights for developing and implementing critical thinking training programmes in a real-world business context. The case study paper analyses the importance of critical thinking for employee performance and innovation in today's organisations, the target market, the competitive landscape, and the strategic approach. Additionally, this paper holds significant value for real-life practitioners by providing practical recommendations and considerations for implementing similar programmes within their own organisations.

Dr Ponn P. Mahayosnand emphasises the importance of mentoring in research writing and academic publishing, highlighting opportunities for student researchers to thrive. This paper offers solutions for students and early career researchers seeking to publish their work. It highlights the challenges of learning research writing and publication on your own. The paper argues that mentoring should start early in your academic career and emphasises the benefits of e-mentoring, regardless of your age or academic status. It positions journal-based mentoring as the most ideal model, potentially paving the way for wider adoption.

Dr William E. Donald and **Dr Nicholas J. Duck** offer a playful perspective on motivations for publishing, encouraging a broader conversation about what drives scholarly activity. Are you **f**eeling burnt out or unmotivated by the traditional pressures of academic publishing? This light-hearted paper explores ten "unconventional" reasons why academics might choose to publish, going beyond career advancement and tenure. Examples include personal satisfaction, collaboration with admired colleagues, or simply the amusement of finding a co-author with a

relevant surname. While acknowledging the seriousness of academic work, the paper encourages embracing a broader perspective on publishing motivations, inspired by Donald Duck's reminder: "Life is too short to be serious all the time."

Mr Liam Murphy makes the case for building resilience in part-time PhD students, offering valuable insights from personal and academic experience. This paper focuses on the challenges faced by part-time doctoral students, particularly in a world where such programmes are becoming increasingly common. It argues for the importance of cultivating resilience to manage the stress of balancing work, family, and doctoral studies. The paper provides practical insights based on the author's experiences and draws on resilience research to recommend three key skills and mindsets that can help you navigate your doctoral journey more successfully.

Ms Helen Turnbull and **Mr Liam Murphy** revisit the evolving landscape of leadership and challenge leaders to adapt in task-focused work systems. This paper explores the impact of automation and task-focused work systems on leadership. The paper offers a concise overview of these complex challenges and proposes research avenues for further investigation. This research can be valuable for leaders seeking to adapt their styles to the evolving workplace and for researchers studying the future of leadership in a digital age.

Dr Károly Polcz recommends a book that emphasises practical application and offers actionable advice to help readers develop and improve both their ‘inward-facing’ and ‘outward-facing’ soft skills in everyday work situations. The book addresses soft skills that are highly sought after by employers, making it relevant for individuals looking to enhance their career prospects. It is written in a clear style, making the book accessible to a broad audience, even those without a background in these specific areas.

Continuing the wide-ranging discussions in Vol. 4 No. 1, in our next Autumn issue of 2024, we are eager to prioritise Upskilling, Process Change, and Coaching in the Age of Generative AI. With our newly introduced sections, including **Case Studies, Action Research, Practical Solutions for Social Impact** and **Extended Essays**, there is plenty of opportunity for diverse perspectives to enrich the dialogue. As I conclude this editorial, I warmly invite academics, industry experts and practitioners alike to contribute and help us build a future-proofed workforce.

I wish you a pleasant reading,

Kind regards,

Dr habil. Judit Beke

Editor-in-Chief at GJSD

ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp4-29

GILE Journal of Skills Development

Delving into Chit-Chat with GPT-3.5: Holy Grail or Pandora's Box? A Review of AI Opportunities and Challenges in Academia

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Abstract

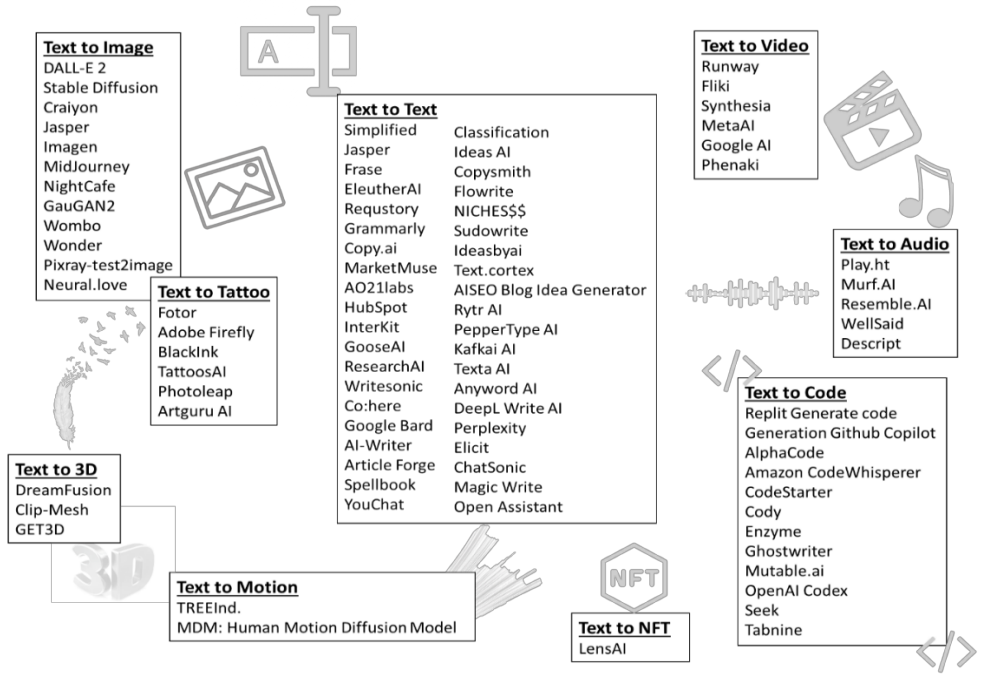
In recent history, technological progress has continually reshaped various aspects of our lives. One notable advancement is the emergence of ChatGPT, an advanced AI-based chatbot that has significantly impacted industries and daily routines. Particularly in education, ChatGPT has ushered in new possibilities for students, teachers, and researchers, offering advanced capabilities in tasks ranging from class preparation to paper writing. However, as a new phenomenon, it came with challenges within an unexplored grey area, introducing certain threats that persist even after more than a year into the ChatGPT journey (e.g., bias, privacy, plagiarism, misuse, and abuse). This systematic literature review (SLR) aims to explore the opportunities and threats associated with ChatGPT's use in academia, drawing insights from 26 selected papers. The findings suggest that the currently available ChatGPT version (3.5) holds promise by augmenting human knowledge and streamlining processes for students, teachers, and researchers, provided its limitations are addressed effectively. Considering the existing constraints of ChatGPT and our understanding, its current utility is primarily limited to routine tasks like data mining, idea generation and language editing, serving as an assistant where human expertise, judgment, and creativity are indispensable and irreplaceable. However, understanding the ethical and effective use of AI in academic settings remains a challenge, necessitating further research, especially comparative and longitudinal studies. The paper concludes with a discussion section that provides valuable insights for future discourse, emphasising practical and theoretical considerations. Despite the present challenges, the inevitable integration of AI into academia requires proactive collaboration among academic and business stakeholders to dispel current myths and implement necessary policies for successful human-AI collaboration. It is essential to recognise that our world is evolving, and upcoming generations will inevitably engage with AI. This calls for cultural shifts, mindset changes, and skill enhancements, particularly in creativity and critical thinking abilities.

***Keywords*:** AI, ChatGPT, academia, education, research, human-AI collaboration, future skills

1. Introduction: It's 2024, and We're still Chatting about ChatGPT

Throughout history, transformative innovations have emerged, reshaping our world across social, economic, and environmental dimensions, propelled by rapid technological progress and global interconnectedness (Mhlanga, 2023). Recent inventions, exemplified by Internet-era platforms like Facebook, Uber, Airbnb, Spotify, Tinder, and TikTok, have significantly impacted the quality of life, especially for the tech-savvy younger generations. Just a short while ago, the unveiling of the next groundbreaking tool was heralded by George and George (2023, p. 9): "*What will be the next definitive moment in history. It's here, and it's called Chat GPT.*" Experts argue that amidst a landscape of technological advancements reshaping human existence daily, one revolutionary force stands out: Artificial Intelligence (AI) (Adiguzel et al., 2023; Bahroun et al., 2023; Lim et al., 2023). Established in 2015, the OpenAI research lab, supported by notable backers including Elon Musk and Microsoft, garnered significant investments for exclusive access to its products. In November 2022, OpenAI launched ChatGPT, quickly gaining widespread usage and attracting one million users in just five days. To provide context, Facebook took 300 days, Twitter 720 days, and Instagram 75 days to reach the same milestone (Bahroun et al., 2023; Birenbaum, 2023; Biswas, 2023c; Farrokhnia et al., 2023; Firat, 2023; Lim et al., 2023; Lo, 2023; Rudolph et al., 2023). While companies like Google and Meta had already introduced chatbot technologies, ChatGPT gained prominence due to its public accessibility, user-friendly interface, and the provision of (mostly) credible, real-time responses (Aydın & Karaarslan, 2023; Dwivedi et al., 2023).

FIGURE 1. AN OVERVIEW OF THE MOST POPULAR TEXT-BASED AI TOOLS



Source: own compilation based on Aydın and Karaarslan (2023, p. 120) and Ray (2023, p. 135)

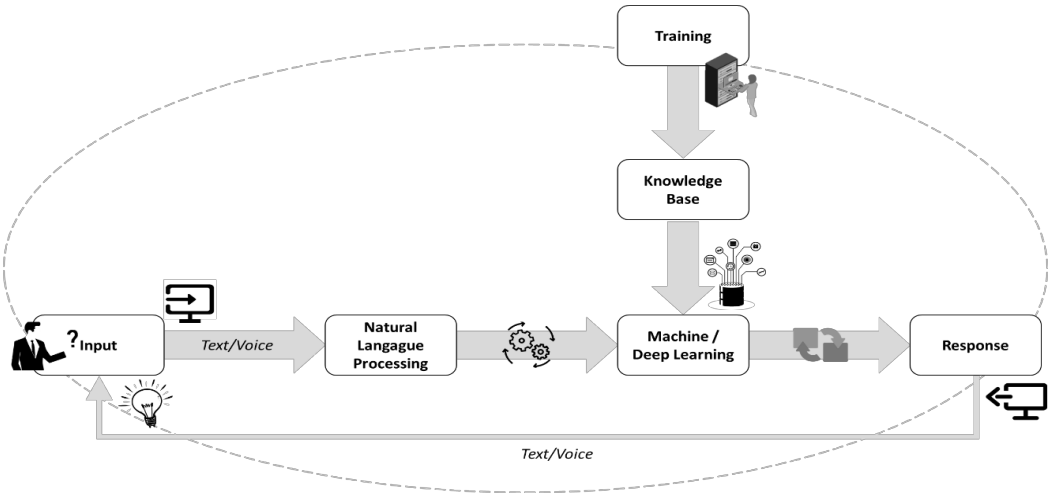
Among the various text-based AIs shown in Figure 1, ChatGPT maintains a leading position due to its advanced capabilities for handling complex tasks (for a detailed comparison, see Aydın and Karaarslan (2023) and Ray (2023)). With the rising popularity and utilisation of AI-based tools like ChatGPT, comprehending the challenges and opportunities within AIs becomes crucial. The significance of grasping this subject is heightened by the continual digital transformation of industries, the empowerment of (internet) users, and the escalating demand for seamless and personalised experiences. Despite the increasing number of studies in this

domain, our comprehension of this area remains restricted. This implies that the existing challenges, as well as ethical considerations for the fair use of AIs, are yet to be fully discerned. Therefore, this study aims to conduct a comprehensive review of current themes surrounding ChatGPT, shedding light on both present and future avenues for innovation. The paper is organised as follows: (1) Introduction – exploring the innovation of ChatGPT; (2) ChatGPT-3.5 Unveiled – providing a brief summary of ChatGPT; (3) Systematic Literature Review – outlining the methods, design and findings of the review; (4) Discussion and Conclusions – presenting key findings, future implications, and suggested research directions.

2. ChatGPT-3.5 Unveiled: Decoding the Wizard Behind the Textual Curtain

The Generative Pre-trained Transformer (GPT) functions as an AI chatbot, proficient in swiftly generating comprehensive responses to prompts and inquiries using large language models (LLM). Leveraging advancements in natural language processing (NLP), machine learning, and deep learning (ML and DL), generative AI (GAI) creates artificial content by analysing various digital training examples, including video, images, text, and audio. While initial user feedback for early ChatGPT responses varied, subsequent updates have significantly improved user satisfaction. This open-source chatbot employs advanced guided and reinforcement learning techniques, utilising user feedback through upvotes, downvotes, and textual input to refine its responses. Users can also prompt ChatGPT to regenerate responses, facilitating the search for suitable alternatives (AlAfnan et al., 2023; Aydın & Karaarslan, 2023; Rahman & Watanobe, 2023; Ray, 2023; Rudolph et al., 2023; Tlili et al., 2023). Although initially available for free, OpenAI has transitioned to a subscription-based model for ChatGPT-4 (ChatGPT Plus), priced at $20 per month (OpenAI, 2023). Despite a considerable number of subscribers to the premium version, the majority still relies on the free version (3.5), which offers sufficient capabilities for many users. ChatGPT's popularity stems from its potential to transform human interaction with technology, providing a seamless, natural conversation experience based on precise algorithms and extensive data analysis (Figure 2). Moreover, with its understanding of context, intent, sentiment, and more, ChatGPT enables users of diverse backgrounds, ages, and education levels to communicate naturally in multiple languages without requiring in-depth language, programming, or computer science knowledge.

FIGURE 2. THE WAY CHATBOTS CURRENTLY OPERATE



Source: own compilation based on Adiguzel et al. (2023), Gill and Kaur (2023), and Rathore (2023)

With all these strengths, ChatGPT is anticipated to greatly impact society. Its remarkable versatility and widespread relevance, coupled with its free accessibility (GPT-3.5, at least when the status is not "*at capacity right now*", as noted by Thorp (2023, p. 313) and Rudolph et al. (2023, p. 345)), suggest potential applications across diverse sectors beyond the initial customer service domain (Dwivedi et al., 2023; George & George, 2023; Gill & Kaur, 2023; Rathore, 2023; Ray, 2023). These include economics, finance, banking, legal services, healthcare, sales, marketing, media, entertainment, creative writing, content generation, as well as art (Guo et al., 2023), military (Biswas, 2023b), and even climate change initiatives (Biswas, 2023a). It is evident that various potential applications exist, with education and research emerging as the most frequently discussed fields (Adiguzel et al., 2023; AlAfnan et al., 2023; Baidoo-Anu & Owusu Ansah, 2023; Birenbaum, 2023; Biswas, 2023c; Cotton et al., 2023; Dwivedi et al., 2023; Farrokhnia et al., 2023; Firat, 2023; Kasneci et al., 2023; Kooli, 2023; Mhlanga, 2023; Rahman et al., 2023; Rahman & Watanobe, 2023; Shidiq, 2023; Tlili et al., 2023 among others).

Despite its global embrace, just like all innovations, AIs like ChatGPT seem to have dual facets: while they present various opportunities, scholars harbour ambivalent sentiments regarding their "*Doomsday*" and "*Ragnarök*" (end of the world) implications (Baidoo-Anu & Owusu Ansah, 2023; Barrett & Pack, 2023; Birenbaum, 2023; Chan, 2023; Cotton et al., 2023; Dwivedi et al., 2023; Farrokhnia et al., 2023; Lim et al., 2023; Mhlanga, 2023; Rudolph et al., 2023; Thorp, 2023; Tlili et al., 2023). A significant concern with the current ChatGPT version is its training on a vast dataset from various sources, which raises the issue that there is no identifiable source whose work may be unintentionally replicated by the chatbot when trying to generate authentic real-time responses. Adding complexity, OpenAI's Terms of Use state that users are granted "*all its right, title, and interest in and to Output*" from ChatGPT, including for publication purposes (Barrett & Pack, 2023, p. 2). However, users are cautioned that "*ChatGPT can make mistakes. Consider checking important information*" and "*ChatGPT sometimes writes plausible-sounding but incorrect or nonsensical answers*" (Thorp, 2023, p. 313), thereby transferring (more or less) the responsibility to the human users, who might lack complete awareness of the origin (and consequently, the reliability) of the utilised data and the possible threat hidden within the lines (see earlier trial errors demonstrated by Aydın and Karaarslan (2023), Birenbaum, (2023), Dwivedi et al. (2023), Halaweh, (2023), Lim et al. (2023), Rahman et al. (2023), Tili et al. (2023)). One of the biggest concerns is that responses to the very same prompt can vary in relevancy, design, and focus, leading to disparities among users (Dwivedi et al., 2023; Tili et al., 2023). Trained on internet data, ChatGPT may also perpetuate biases and contribute to misinformation, which is evident in instances of discriminatory output. Given that a massive portion of the training data may originate from a predominantly white, male, Western, English-speaking perspective, it is likely that the data would be heavily skewed to reflect those structures (Dwivedi et al., 2023). While users of chatbots may gain unfair advantages, variations exist. Gerritsen (2023) notes these challenges are amplified when interacting with 'special users' like younger individuals: AIs relying on limited data sources (often including sites like TikTok, Twitter or Facebook) may struggle with consistency, especially in educational settings. Understanding nuanced expectations from these individuals adds complexity to the AI's comprehension, raising concerns about unpredictable actions, like penalising students for using innocent words like 'unicorn.'

As presented, content creation with AI is a relatively uncharted territory; it resides within a grey area where further (ethical) challenges and responsible practices may come into question, leading some to perceive it as a disruptive, evil technology. Firat (2023) highlighted that the basic human resistance to change primarily fuels this perspective, reflecting apprehensions about its transformative potential rather than its disruptive essence. Dwivedi et al. (2023, p. 4) contributed to the discourse by emphasising that the disruptive aspect does not inherently imply

a negative connotation, as they state, "(…) *it has happened suddenly and quickly. Technology, by its very nature, does evolve. Sometimes, it is disruptive*." As also emphasised by Rudolph et al. (2023, p. 343), it is "*not particularly evil*," ultimately dependent on how humans utilise it, much like any inanimate object. These concepts collectively contribute to various paradoxes surrounding AIs like ChatGPT, exemplifying an extraordinary situation where it can be considered a "*friend yet a foe*" (Lim et al., 2023, p. 1). As demonstrated by the preceding examples, given the significant tension within the field of education, there is a need for a critical discourse that can effectively navigate both the concerns and excitement surrounding generative AIs in a balanced manner (Lim et al., 2023). Drawing from these mixed sentiments, the following research questions were formulated, forming the foundation of this research paper:

RQ1: What opportunities and challenges exist for various stakeholders in academia?
RQ2: Is ChatGPT, and similar AIs, truly disruptive (in an evil manner)?

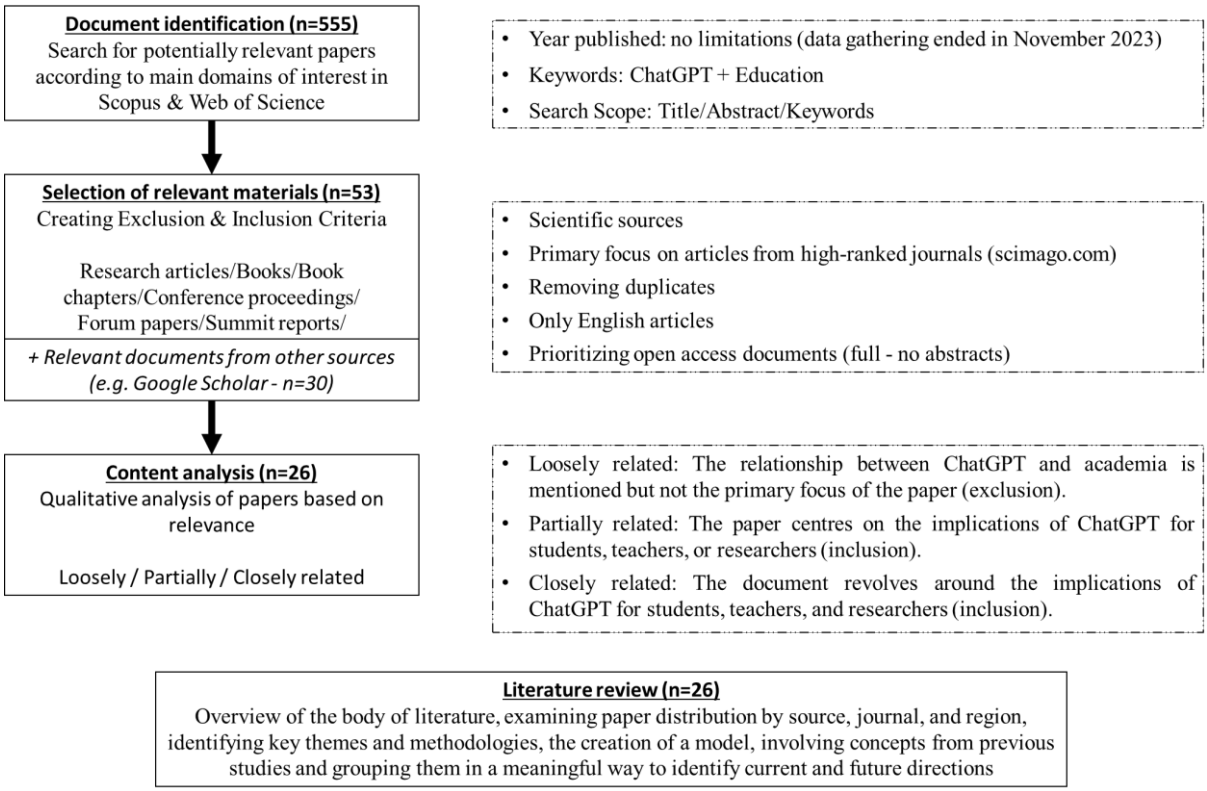
Expanding upon existing literature, this concise literature review seeks to provide an overview of the merits and shortcomings of deploying the popular ChatGPT (3.5) in one of the most contested realms –academia. Through an examination of relevant literature, it also underscores key elements in the effort to navigate the potential disruptive impacts of ChatGPT. These aspects will become progressively crucial for future generations, impacting both the evolution of education and the demand for workplace skills, which are intricately linked with the ongoing development of AI tools.

3. Systematic Literature Review

3.1. Method & Design

The methodology employed is a systematic literature review (SLR) focusing on peer-reviewed international articles regarding the use of ChatGPT. SLR is a research method aimed at identifying, evaluating, and synthesising the work of researchers, academics, and practitioners in a systematic and transparent manner. It follows strict guidelines to ensure professionalism, transparency, and replicability. SLR involves detailed research, including the selection, critical evaluation, and synthesis of available literature on a specific topic. This method provides a precise overview of the current state of knowledge on the topic, yielding 'new' and reliable results. Articles are selected from prominent databases like Scopus, EBSCO, Web of Science, or Google Scholar based on predefined criteria such as keywords, year, or language. The selection is then narrowed down manually to the most relevant sources (Tranfield et al., 2003; Fink, 2005; Moher et al., 2009; Okoli & Schabram, 2010; Gough et al., 2012; Anand et al., 2022). The SLR process involved the following phases:

FIGURE 3. SYSTEMATIC LITERATURE REVIEW PROCESS

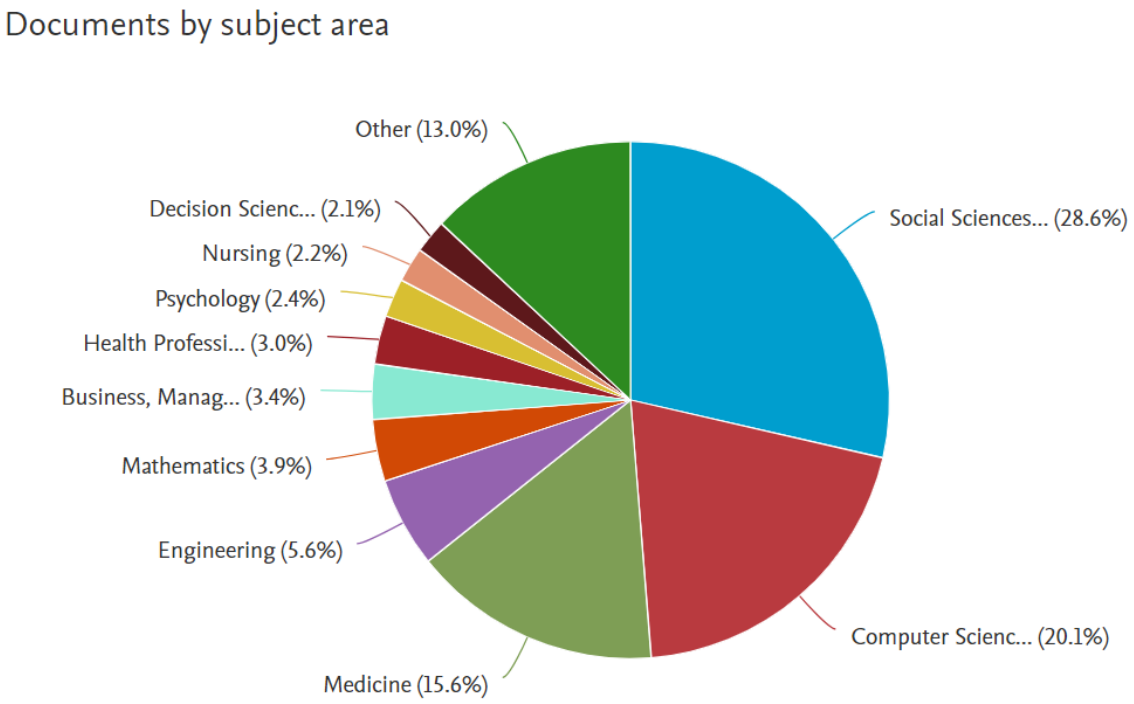


Source: own compilation

3.2. Relevant Literature

Bahroun et al.'s previous study (2023) highlighted the significant and exponential growth in research on generative AIs between 2018 and 2023. The surge in papers published in 2023 is largely attributed to the popularity and innovation catalysed by ChatGPT (Bahroun et al., 2023; Dwivedi et al., 2023). Figure 4 provides an overview of the documents identified in the initial stage of the literature review, categorised by research field, aligning with similar findings reported by Bahroun et al. (2023).

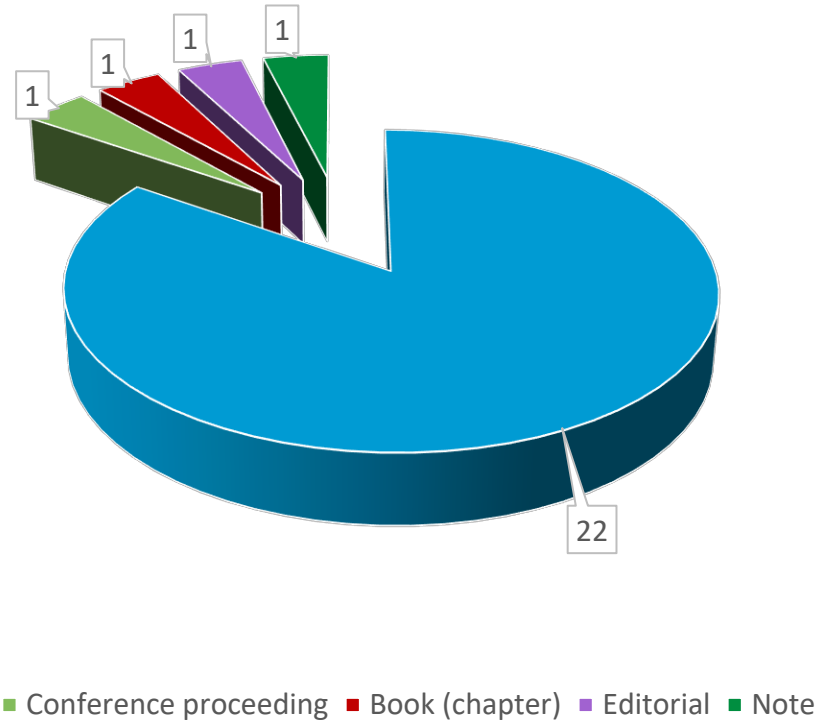
FIGURE 4. POTENTIALLY RELEVANT CHATGPT PAPERS IDENTIFIED IN STAGE 1 (N=555)



Source: Scopus (2023)

As noted, this initial stage of the search typically generates a broad array of literature, necessitating further steps to confirm the relevance of the database results. While Google Scholar may not be the primary database, incorporating this additional approach facilitated the retrieval of further relevant articles initially missed in the database search (also noted by Lo (2023)). Subsequently, the remaining papers underwent a manual, qualitative analysis (Anand et al., 2022; Tranfield et al., 2003). This process led to the identification of selected documents that served as the basis for our review (refer to Figure 5).

FIGURE 5. SELECTED DOCUMENTS FOR THE REVIEW (N=26) BY TYPE



Source: own compilation

To ensure the quality of the documents, it is imperative to rely on high-credibility and prominent (reliable) scholarly sources. Accordingly, the analysis sought to incorporate papers primarily from Q1-Q2 journals. Table 1 presents the journals that have published a minimum of two articles utilised in this review.

TABLE 1. TOP JOURNALS IN SCOPE

Journal name	Quartile	Location	No. of papers used
Contemporary Educational Technology	Q1	Turkey/UK	2
Innovations in Education and Teaching International	Q1	UK	2
International Journal of Educational Technology in Higher Education	Q1	Netherlands	2
Sustainability	Q2	Switzerland	2
Education Sciences	Q2	Switzerland	2
Journal of Applied Learning & Teaching	not yet assigned	Singapore	2
Internet of Things and Cyber-Physical Systems	-	China	2

Source: own compilation based on scimagojr.com

As can be seen in Table 2, since their publication (2023), ten papers have achieved the noteworthy milestone of 50 citations, with Thorp (2023), Dwivedi et al. (2023) and Kasneci et al. (2023) significantly leading the way (283, 241 and 201 citations).

Additionally, the thematic focus of the titles is intriguing, with many expressing scepticism and divisiveness, yet often with a potential ray of hope (positivity) hidden behind the clever (often witty) wording.

TABLE 2. MOST CITED PAPERS IN 2023 RELEVANT TO THIS RESEARCH

Author	Title	Type	Citations
Thorp (2023)	ChatGPT is fun, but not an author.	Editorial (1 page)	283
Dwivedi et al. (2023)	"So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy.	Article (63 pages)	241
Kasneci et al. (2023)	ChatGPT for Good? On Opportunities and Challenges of Large Language Models for Education.	Note (13 pages)	201
Rudolph et al. (2023)	ChatGPT: Bullshit spewer or the end of traditional assessments in higher education?	Article (22 pages)	125
Tlili et al. (2023)	What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education.	Article (24 pages)	115
Cotton et al. (2023)	Chatting and cheating: Ensuring academic integrity in the era of ChatGPT.	Article (13 pages)	106
Ray (2023)	ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope.	Review (34 pages)	77
Lo (2023)	What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature.	Review (16 pages)	68
Lim et al. (2023)	Generative AI and the future of education: Ragnarök or reformation? A paradoxical perspective from management educators.	Article (13 pages)	57
Farrokhnia et al. (2023)	A SWOT analysis of ChatGPT: Implications for educational practice and research.	Article (16 pages)	56

Source: own compilation based on Scopus

Looking at these papers from a methodological viewpoint, systematic literature reviews, bibliometric analysis, subject matter expert opinions (e.g., both Kasneci et al. (2023) and Dwivedi et al. (2023) with 20+ contributors) and experimenting with ChatGPT were common approaches to capture the dynamic landscape. Only Kasneci et al. (2023) and Lo's (2023) papers do not acknowledge ChatGPT use, while others utilise various queries and tests (usually with screenshots) to support their arguments. Notably, Cotton et al. (2023) rely on ChatGPT for their entire paper until the Discussion part. The significant presence of ChatGPT within these topics, not only as a subject, but also as a contributor to these articles (about itself) raises future questions about the role of ChatGPT in research and the potential implications for authorship attribution.

3.3. Findings: Teaching, Learning, and Researching with ChatGPT 3.5 and Beyond?

Despite the significant advancements machines have brought to daily life in the 20th century, a visitor from the 19th century would find familiarity in a modern classroom, highlighting the enduring nature of traditional learning environments (Mhlanga, 2023; Rudolph et al., 2023). Lim et al. (2023) observed that the education landscape underwent a significant shift due to the impact of COVID-19, compelling many to engage in remote activities with online classes and

assessments. However, this transformation remains incomplete, as educators still rely on traditional methods like chalkboards, while some incorporate basic technologies such as online game-based learning platforms (e.g., Kahoot or Mentimeter) and videoconferencing tools (e.g., Google Meet, Skype, Microsoft Teams, or Zoom) to introduce 'modern' elements into classrooms. The rapid evolution of AI innovations like ChatGPT necessitates a re-evaluation and reimagination of traditional teaching philosophies and classrooms. Therefore, all stakeholders in academia, including students and faculty, must upgrade their skills and adjust their approaches to meet the changing demands of technology (Farrokhnia et al., 2023; Tlili et al., 2023). In pursuit of this goal, Table 4 presents a primary, though not exhaustive, sample of publications examined in this study.

TABLE 4. CHATGPT AND ACADEMIA: EXPLORING OPPORTUNITIES AND CHALLENGES

AUTHOR(S)	TOPIC(S) COVERED				OPPORTUNITIES	CHALLENGES
	T	S	R	B		
Adiguzel et al. (2023)	✓	✓			Transforming conventional teaching and learning processes (motivation & engagement): + Intelligent tutoring systems + Self-learning, self-reflection & self-regulation + Automated rating & feedback systems + Tailored learning platforms + Enhancing 21th century skills (e.g., critical thinking and creativity) and collaboration + Support students with special needs + Improve teaching skills, while also helps to analyze and assess a student's learning ability and performance + Replace a significant amount of repetitive (administrative) work e.g., answering FAQs	– Ethical and practical challenges – Inequalities in the educational system – Bias by nature in AI-data – Reliability and accuracy – Privacy issues – Lack of human interaction – Over-reliance and dependency on technology – Concerns about the rights of intellectual property – Transparency and accountability – Need of training and support – Questions about the role of teachers and the impact on the job market for educators
AlAfnan et al. (2023)	✓	✓			+ New search engine + Lesson enhancement (debates/workshops)	– Dampening human brain – Identifying & assessing (originality)
Aydın & Karaarslan (2023)	✓	✓	✓		+ Wide range of application from Health, Law, Finance, Economy or Business studies + Scientific writing paragraphs with references "close to the truth" (realistic, but not real)	– References pointing to non-existent or unpublished works – Limits: Logical, but inconsistent and inaccurate answers – Cost of training and social, ethical, environmental concerns
Bahroun et al. (2023)	✓	✓	✓		+ Enhancing interactive learning experiences + Fostering critical thinking skills + Reaching better translation accuracy + Innovative classroom, content creation and assessment practices + Diverse research with contextually relevant responses + Subject-specific education + Student engagement	– Responsible and ethical AI usage – Acceptance and Adoption – Need of new approaches – Biases, fairness and academic integrity – Privacy and Data Security – Inclusivity and Accessibility
Baidoo-Anu & Owusu Ansah (2023)	✓	✓			+ Personalised & interactive learning + Continuous & consistent feedback + Guide teaching & learning process + Real-time language translations	– Biases in data training → reliability, privacy, ethics? – Absence of 'real' human interaction – Limited understanding (input/output) – Creativity/Originality – Insufficient contextual understanding – Limited capability to tailor instructions
Barrett & Pack (2023)	✓	✓	✓		Useful tool for teachers and students: + Brainstorming ideas, modelling answers, or as a form of cognitive off-loading of tasks + Helpful (and acceptable) in the early stages of the writing process (i.e., brainstorming and outlining) + Fulflling a supportive role focused on idea generation and organization	– Easy to 'misuse' (academic integrity) – To date no consensus on its usage → Lack of trainings, policies and guidance
Birenbaum (2023)	✓	✓			+ Improved engagement/collaboration + Increased access to information + Enhanced teaching/study-support + Better assessment & feedback systems + Cost-effectiveness + Personalization + Diverse forms available, such as comic-strips, stories, poems, songs…) + Reinforcing 21st-century skills (critical thinking skills, self-learning, problem-solving, argumentation, computer and data literacy etc.)	– Improper usage of chatbots – Cannot provide (reliable) references – Lack of emotional intelligence – Concerns about plagiarism and other dishonest behaviors – Limitations of training materials & output bias – Accuracy and credibility of information – Inability to deal with complex and lengthy texts – User knowledge and prompt quality altering output quality
Chan (2023)	✓	✓			Revolutionize the learning experience: + Provide personalized & real-time feedback + Identifying problem areas and make a room for continuous improvement + Enhance modern learning/digital skills + Providing training and support for teachers + Re-thinking assessments and examinations	– Responsibility, accountability, and transparency – Fairness & inclusivity – Accuracy & explainability – Issues with data privacy & security – Ethical, social, and economic concerns – Decline in writing/critical thinking skills – A need for AI education policies & guidance
Cotton et al. (2023)	✓	✓			+ Better student involvement, cooperation, & accessibility + Asynchronous communication, prompt feedback + Support student groups & endorse remote learning + Wide range of application (summarization, question answering, translation etc.)	– Academic (dis)honesty & plagiarism – Inequities among users/non-users
Farrokhnia et al. (2023)	✓	✓			Making key activities more efficient: + Wide range of plausible outputs + Real-time access to information + Personalised and complex learning + Decrease teaching work-load	– Lack of understanding of the context – Academic integrity – Perpetuating discrimination in education – Plagiarism – Declining cognitive skills
Fırat (2023)	✓	✓			+ Customised learning experiences + Reshaping the role of educators + Foster the development of soft skills	– Identifying & assessing (originality) – Digital literacy – Social & ethical considerations
George & George (2023)	✓	✓		✓	+ Tailored learning experiences + Assist teachers in creating personalised lesson plans + Automated feedbacks & grading + Chatbot answering questions about course information/campus services	– Lacking skills for contextual understanding & decision-making based on taste or preference (e.g., news updates, complex maths tasks, modifying recipes)
Gill & Kaur (2023)	✓	✓	✓	✓	+ Individualised coaching & tutoring + Automated assessments & feedbacks + Foster discussions & collaborations + Innovative content production + Improve academic research (data management, identifying trends, patterns, models + predictions)	– Consistency & precision (quality) challenges – Moral & ethical issues – AI-generated unfairness & social prejudice – Misplaced faith in AI – Generalizability, explainability & contextualisation – Sustainability – Security & data protection concerns

TABLE 4. (CONTINUED)

AUTHOR(S)	TOPIC(S) COVERED				OPPORTUNITIES	CHALLENGES
Halaweh (2023)	✓	✓	✓		+ Summarizing and formatting information + Providing reliable and real-time translation + Detecting grammar and style errors + Generating software codes + Providing tutoring and explaination + Solving mathematical calculations and statistical analysis + Developing research skills	– Potential bias and discrimination due to the reliance on NLP – Inaccuracies and plagiarism – Privacy concerns (search and query data) – Lack of creativity and critical thinking – Concerns about job loss
Kasneci et al. (2023)	✓	✓	✓		+ Generate interactive study material + Individualised learning experiences + Enhance student engagement & interaction + Empower learners with disabilities	– Copyright issues – Bias & fairness – Over-reliance – Lack of understanding & expertise – Data privacy & security – Sustainable usage – Cost to verify information (+integrity) – Lack of adaptability – Cost of training & maintenance – Identifying & assessing (originality/reliability)
Kooli (2023)	✓	✓	✓		+ Innovating research and assessments (efficiency / accuracy / cost-effectiveness) + Easy to process vast amounts of data and identify patterns and relationships + Personalising learning pathways + More equitable and inclusive education + Improved engagement and motivation + Automated repetitive tasks + More engaging and interactive experiences + Instant feedback and support	+ Co-living, sustainability and continuous adaptation – policies and guidance? + Biases and discrimination + Unreliable or biased results → Misuse or manipulation? + Inclusion and equity + Ethical and social concerns vs. data usage + Accountability, transparency and security + Over-reliance on AI + Future of academic work
Lo (2023)	✓	✓			+ Easy access to large datasets, summarise content, real-time answers + Facilitating collaboration/engagement Teachers: + Assistant for instructors (e.g., generating course materials and providing suggestions/translations/summaries) + Support assessments (generate-evaluate) Students: + Virtual tutor for students (e.g., answering questions, getting personalised feedbacks real-time, providing ideas and „first drafts", sense- and grammer-checking already written pieces)	– Accuracy and reliability – Biased data – Limited (up-to-date) knowledge – Partly correct / fake information – AI-assisted cheating / plagiarism – Responsible and ethical concerns
Mhlanga (2023)	✓	✓			+ Empowering teachers with new tools + Student engagement & collaboration + Hands-on, experiential learning	– Identifying & assessing (originality) → Accuracy & relevancy? – Respect for privacy, fairness & non-discrimination + transparency
Rahman & Watanobe (2023)	✓	✓	✓		Free up teachers: + Automated feedback & assessment + Data, lesson preparation, discussions Enhance students' experience: + Personalised learning tutor + Wide applicability (data, ideas, translation, writing + technical) + skill enhancement + Foster group discussions & debates + Accessibility for disabled (e.g., speech2text function) Improve research: + Provide research ideas, summaries + Correct typographical errors, grammar, vocabulary etc.	– Identifying & assessing (originality) – Over-reliance – Output quality concerns – Diminished critical thinking & problem solving skills – Ethical implications & biases – Cheating & misinformation
Rathore (2023)	✓	✓	✓	✓	+ Personalised teaching/learning content + Streamline collab & communication + Consistent, high-quality academic content	– Plagiarism
Rudolph et al. (2023)	✓	✓			+ Widely accessible (mostly) quality information on a variety of topics + Fast & flexible human-like responses + Cost-effective 24/7 personal assistant + Supporting individual writing and research + Enhancing digital literacy and increasing future employability + Improving writing skills and generating new ideas + Assisting in solving real-world problems real-time	– The future of white-collar knowledge work – Plagiarism – Aligning learning objectives, teaching and assessments – Not providing reliable sources / quotations – Difficulty of distinguishing human and ChatGPT-generated text – Loss of creativity and originality – Lack of contextual/emotional understanding – Limited undersanding and data – Quality, misinformation and jailbreaking
Shidiq (2023)	✓	✓			+ Assist & enhance (self-)learning + Improve performance & motivation: Virtual mentors/voice assistants Innovative content Smart classrooms + Easy to make content (poems, novels etc.)	– Lack of direct interaction (emotional connection) – Learning requires creativity – Contextual understanding (user/ChatGPT) – Over-reliance socially → inferiority – Over-reliance psychologically → skill loss – how to use responsibly & ethically?
Tlili et al. (2023)	✓	✓	✓		+ Prepare (teaching/learning) material + Offering a comprehensive grasp of diverse complex topics in straightforward way + Reduce the teaching burden for educators + Offer students instant feedback	– Plagiarism, cheating, & laziness – Honesty & truthfulness – Privacy, misleading, & manipulation – Dampen innovative & critical thinking – Response quality – prone to errors – Non-human (too realistic) interactions

Note: T=teacher, S=student, R=research, B=business implications, where grey ticks indicate partial mentions

Source: own compilation

Looking at the insights provided in Table 4 concerning the opportunities and challenges presented by AIs like ChatGPT, it is evident that even with its limits, ChatGPT has the potential to revolutionise our world. According to Lo (2023), ChatGPT exhibits promising outcomes in various domains, excelling particularly in critical and high-order thinking, economics, programming, and English language comprehension. With its broad accessibility, quick learning, and capacity to offer nearly limitless, prompt, and intelligible human-like answers spanning diverse topics in multiple languages, it asserts itself as a transformative force for all stakeholder groups:

- **Reimagining the traditional role of educators** by (1) accessing and preparing teaching materials and plans; (2) automating evaluation and continuous feedback; (3) fostering interactive 'smart' class activities; (4) streamlining collaboration/communication; (5) adding a virtual assistant for answering questions about course information or campus services.
- **Offering better, individualised and interactive learning experiences** by (1) allowing easy access to a 'limitless' database; (2) real-time generating (seemingly) quality (and easy to understand) answers on various topics (from creative writing to technical questions) in multiple languages; (3) giving continuous feedback as a virtual mentor/tutor (4) offering interactive and innovative classrooms and activities; (5) stimulating collaboration and group work (6) customising content and accessibility for (nearly) all (7) improving self-learning and soft skills.
- **Making it easier to conduct research and improve its quality** by (1) efficiently storing and accessing data; (2) identifying trends, patterns, models and making predictions; (3) streamlining collaboration/communication; (4) easily writing even paragraphs (e.g., introductions or summaries); (5) correcting typographical, grammar, and language errors.

Consequently, as emphasised by Kooli (2023), the existence of AI systems and chatbots in education should be viewed as an opportunity for advancement rather than a threat. However, instead of collaboratively striving for an improved AI-enhanced future, there is a trend of perceiving ChatGPT as a malevolent force, leading to its prohibition in certain institutions, such as universities and journal editorial boards (see Dwivedi et al. (2023)). Meanwhile, elsewhere globally, organisations are revising plagiarism policies due to concerns about academic integrity and reverting to pen-and-paper-based exam and assessment procedures (Barrett & Pack, 2023; Chan, 2023; Rudolph et al., 2023; Thorp, 2023).

Choudhury and Shamszare (2023) addressed the significance of striking a 'golden mean' in this context as well: while excessive dependence and uncritical trust in ChatGPT can lead to dire consequences, completely avoiding seemingly valuable technology may result in missed opportunities. Dwivedi et al. (2023) highlight that the academic sector faces significant disruptions with the emergence of ChatGPT: its capabilities, like offering personalised feedback and access to diverse knowledge, can transform student-teacher interactions and assessment methods.

Additionally, the influence of ChatGPT clearly reaches beyond education, as several academic articles co-authored by the AI have already been published. A prominent concern is that AI lacks accountability for content, potentially undermining the criteria for authorship and devaluing research publications.

Presently, ChatGPT is acknowledged for its utilisation (only) as an assistant in desk work, including data mining, idea generation, and language/grammar enhancement (Dwivedi et al., 2023). As Thorp (2023, p. 313) suggested, machines play a crucial role in the writing/research process today; they serve as tools for individuals to formulate hypotheses, design experiments, and interpret results. However, in the end, the work must be "*original*," with "*the product originating from—and being expressed by— the wonderful computer in our heads*." This also underscores that it remains crucial for users not to unquestioningly accept everything (Tlili et al., 2023) and to add human effort, as education, (creative) writing, and research are still perceived as "*human-centric*" processes rather than "*robot-centric*" (Dwivedi et al., 2023, p. 34).

In agreement, Birenbaum (2023) characterises Chatbot tools as "*efficient helpers*" similarly Kooli (2023) views them as "*research assistants*" that cannot replace humans. As per Barrett and Pack (2023), relying on generative AIs to entirely fulfil writing assignments, whether disclosed or not, is deemed unacceptable. However, they discovered that the use of such "*supporting tools*" is considered (more) acceptable in the initial stages of the writing process, such as brainstorming and outlining.

Here, it must be mentioned that we are just beginning to witness the impact of ChatGPT on various sectors, including higher education, as highlighted by Rudolph et al. (2023) and Farrokhnia et al. (2023). It is crucial to recognise that our understanding of this technology is still evolving, with many limitations to address, such as issues related to training data, output quality, and biases (Dwivedi et al., 2023; Ray, 2023). International coordination is necessary to establish guidelines and ethical codes for GAIs like ChatGPT to ensure their secure and responsible use (Dwivedi et al., 2023).

Correspondingly, Chan (2023) categorises the implications of ChatGPT-like AIs into three main areas: (1) Pedagogical, focusing on improving teaching and learning outcomes; (2) Governance, addressing issues of privacy, security, and accountability; and (3) Operational, dealing with infrastructure and training, emphasising the need for comprehensive understanding and action within each dimension to integrate AI seamlessly into academic settings. To illustrate the significance of these challenges, as we approach the end of 2023, one year into the ChatGPT-journey, key stakeholders may still lack awareness of ChatGPT's capabilities, relying on sensationalist reporting in news and social media. Barrett and Pack (2023) highlight the absence of university policies on AI usage, with 94.1% of teachers reporting a lack of such policies and 89.7% admitting to never educating students on AI use. To address this, guidance and training programs should be implemented to educate stakeholders on ChatGPT's functions, accuracy evaluation, information assessment, and query tracking (Cotton et al., 2023; Halaweh, 2023; Lo, 2023; Rudolph et al., 2023; Tlili et al., 2023). This underscores the need for clear university (and journal) policies on ChatGPT's acceptable use, considering the following points:

- Available training and guidance regarding the 'safe' usage of AIs.
- Skill enhancement recommendations connected to new AI models.
- How to examine and evaluate the information generated by GAIs.
- How to check the accurate source of the information and use/cite it accordingly.
- The importance of manual editing and proofreading, which still remains essential.

- The rules of Human-AI collaboration – the role of humans vs. AI.
- Guidelines on acknowledging the assistance of ChatGPT in any work.
- What is plagiarism, what are its potential consequences, and what detection tools are in place?
- The dawn of rethinking the form of traditional assessments and study activities.

Apart from the present absence of common policies and a clear understanding of its usage, a significant limitation of ChatGPT is its inability to provide correct sources and quotations (Rudolph et al., 2023), coupled with the occurrence of incorrect, inaccurate, or outdated answers (Aydın & Karaarslan, 2023), leading to issues with output origin, quality, and reliability. As mentioned earlier, these systems are expected to evolve over time (GPT3-GPT4). For now, while recognising our limited understanding and the existing constraints of the technology, the emphasis should be on utilising it decently within the limits. This involves designing specific interventions to use chatbots properly and constructively (Birenbaum, 2023).

On this occasion, Ray's in-depth analysis offers a comprehensive overview of the topic, illuminating the major challenges associated currently with ChatGPT-3.5 (2023, pp. 147-148):

- **Biases arising from the training data of the model**, which mirrors content generated by humans from the internet: (1) gender, racial, and cultural biases; (2) language bias; (3) ideological bias; (4) sensationalism and clickbait bias; (5) confirmation bias; (6) temporal bias; (7) exclusionary bias; (8) commercial bias; (9) cognitive bias; (10) attention bias; (11) format bias; (12) source bias; (13) novelty bias; (14) positive/negative sentiment bias; (15) outlier bias; (16) implicit bias; (17) authority bias; (18) recency bias; (19) groupthink bias; (20) anchoring bias; (21) availability bias; (22) false consensus bias; (23) hindsight bias.
- **Limitations of the new AI technology**: (1) inherent biases in training data; (2) incomplete or outdated knowledge; (3) inability to discern factual accuracy; (4) lack of contextual awareness; (5) ethical and moral reasoning limitations; (6) long conversational context challenges; (7) inability to generate visual content; (8) difficulty handling inappropriate or harmful requests; (9) difficulty recognising and adapting to user expertise; (10) limited emotional intelligence; (11) lack of personalised feedback; (12) limited domain-specific expertise; (13) inability to interact with external systems; (14) difficulty handling multilingual queries; (15) difficulty with non-literal language; (16) limited creativity; (17) overgeneralisation; (18) inconsistency in quality; (19) energy consumption and environmental impact; (20) difficulty capturing human intuition; (21) lack of self-awareness; (22) resource requirements for training and deployment.

In line with Ray's findings (2023), Dwivedi et al.'s (2023) extensive study summarised the key challenges of GAIs such as ChatGPT within the following points: (1) accountability, transparency and explainability (output quality vs "*black box*"); (2) limited understanding and prompts; (3) out-dated information (pre-2021) and inability to integrate real-time data automatically, (4) potential of misuse and abuse; (5) cultural, social, ethical and legal issues; (6) concerns about the future of jobs and dependence on technology; (7) dampening critical skills due to GAIs (8) plagiarism, cheating and lack of originality, plus other embedded biases. As evident from these points, like all historical 'Holy Grails,' the challenge lies in harnessing ChatGPT's potential for 'good' purposes. As Ray (2023) and Dwivedi et al. (2023) astutely

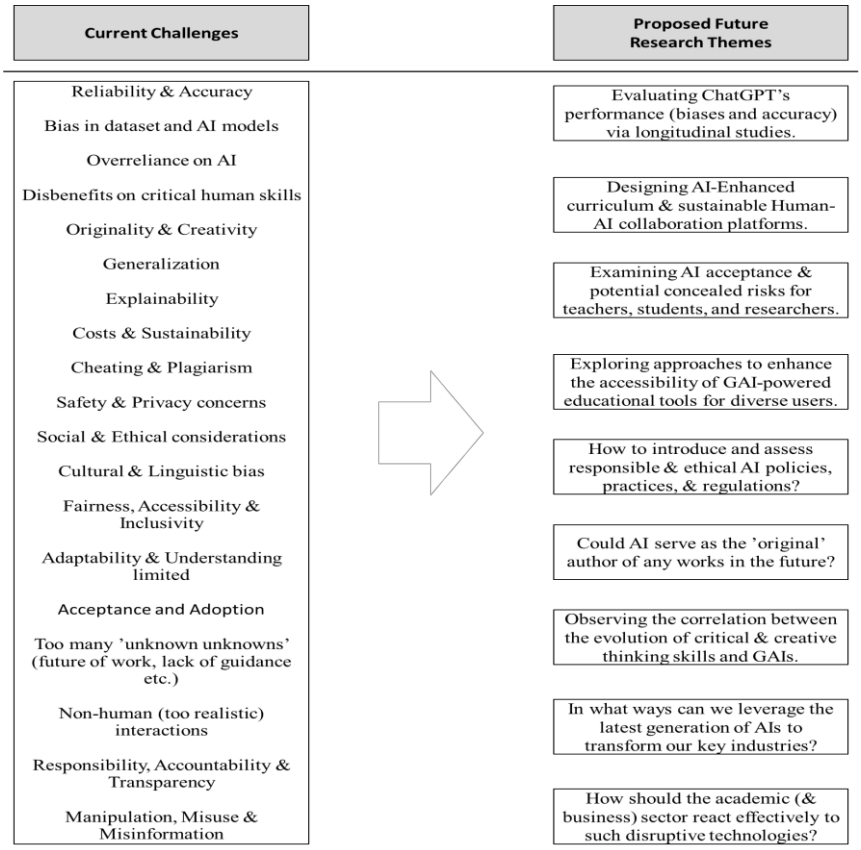
concluded, this endeavour is accompanied by numerous ethical challenges. To prevent any form of harm, whether direct or indirect (George & George, 2023), Mhlanga (2023) has compiled solutions for these challenges, which include:

- Transparency in the use of ChatGPT.
- Respect for privacy.
- Accuracy of information.
- Fairness and Non-Discrimination.
- ChatGPT is not a substitute for humans.
- Responsible AI – Educating people.

To prevent the exploitation of vulnerable individuals and communities, it is crucial to address these key concerns proactively. This includes preventing the leakage of personal and secure information and mitigating unintended consequences or discriminatory outcomes (see earlier examples). Additionally, measures should target the prevention of misuse, misleading information, and manipulation, for example, in market research or opinion polls driven by specific financial or political interests. Moreover, efforts must be made to halt the dissemination of fabricated or false information, such as in research or schoolwork, as this undermines the fundamental principles of research and learning (Kooli, 2023).

Given the contentious 'myths' surrounding the subject these days arising from the outlined positive and negative aspects of the innovative-disruptive technology, it is essential to conduct a more in-depth exploration (Bahroun et al., 2023; Dwivedi et al., 2023). To make it more concrete, Lim et al. (2023, p. 9) outlined four key paradoxes associated with the topic, comprising: (1) "*A friend yet a foe*"; (2) "*Capable yet dependent*"; (3) "*Accessible yet restrictive*"; (4) "*Gets even popular when banned*", which summarises perfectly the current relationship status of ChatGPT and people. Drawing from these findings, several potential avenues for future research can be proposed to enhance our understanding of AI in academic settings (as suggested in Figure 6):

FIGURE 6. THE FRAMEWORK OF CURRENT CHALLENGES AND FUTURE THEMES ON AI RESEARCH



Source: own compilation

Despite the reconcilable contradictions highlighted earlier, ongoing technological advancements will inevitably reshape research processes and revolutionise educational systems (e.g., idea generation or text writing). While banning ChatGPT to mitigate its perceived threat to education may seem plausible, historical evidence suggests that such high-profile items often become more popular when prohibited, as previously noted by Lim et al. (2023). Additionally, it is essential to acknowledge that tech-savvy students can always find alternative ways to access such technologies (Farrokhnia et al., 2023). Moreover, relying solely on new AI detection software to counteract AI usage may not effectively address the core issue, as emphasised by Rudolph et al. (2023) and Dwivedi et al. (2023). Conventional assessments are on the verge of obsolescence since the advent of remote learning (COVID-19) and now ChatGPT, necessitating more imaginative and innovative methods in re-designing soon-to-be outdated home and classroom activities. Faculties can utilise these tools to aid in writing and research, but they cannot replace critical thinking and original work (Rudolph et al., 2023). As education increasingly integrates AI, there is a pressing need to prioritise the development of higher-order learning outcomes, including creativity and critical thinking skills (Farrokhnia et al., 2023).

At this juncture, Kooli (2023, p. 1) underscored the pressing need to adapt to the new reality of AI systems and chatbots, stating, "*Co-living, sustainability, and continuous adaptation to the development of these systems will become a matter of emergency. Raising awareness, adopting appropriate legislation, and solidifying ethical values will strengthen research and protect educational systems*." Similarly, Adiguzel et al. (2023) and Cotton et al. (2023) emphasised

that regardless of future developments in AI technology, this serves as a wake-up call for all stakeholders, particularly in academia, necessitating a careful reconsideration of existing work practices to ensure the effective integration of AI into daily operations without adverse consequences. As Lim et al. (2023) added, since GAI tools offer both challenges and opportunities, educational bodies and institutions must actively monitor and regulate their use, recognising the need for a cultural shift in approaching these disruptive technologies. Tools like Bard, ChatGPT, and DALL-E are transforming learning, communication, collaboration, and work, prompting a re-assessment of established practices to ensure preparedness and relevance for the future. In our case, this could involve formulating policies and procedures for their use, providing training and assistance to both students and faculty and employing diverse strategies to identify and prevent academic dishonesty (Cotton et al., 2023). Aligning curricula and learning objectives, including tasks, assessments, and criteria, demands critical literacies like media and digital literacy (Farrokhnia et al., 2023). Moreover, exploring human-machine collaboration strategies is crucial to empower users, especially with tools like ChatGPT, for improved writing outcomes, as noted by Tlili et al. (2023). Ultimately, ChatGPT is expected to positively impact productivity by automating mundane tasks, freeing individuals to focus on creative and non-repetitive activities (Dwivedi et al., 2023), potentially influencing organisations, societies, and individuals alike.

In essence, ChatGPT, like any technology, presents both positive and negative aspects, calling for thorough analysis and discussion on its adoption rather than outright dismissal or prohibition. The education sector, for example, is undergoing rapid transformations due to such advancements, necessitating a shift in the skill set required for future student-teacher collaborations (e.g., increased critical thinking skills in evaluating information and generating new ideas, as well as proficiency in presentation skills). Assessments now commonly include presentations and defending one's work, potentially in tandem with ChatGPT, to verify learning outcomes (Halaweh, 2023). Moreover, in research, the role of text writing may diminish as tools like ChatGPT offer efficient support (Dwivedi et al., 2023). Additionally, this also influences the skill set needed for future workplaces. Responding to Tlili et al.'s (2023, p. 18) prompt about chatbots serving as both educational guardian angel and a devil, ChatGPT remarked, "*Chatbots are here to stay, for better or for worse*!" Correspondingly, Kasneci et al. (2023, p. 2) highlighted, "*Overall, large language models will continue to push the boundaries of what is possible in natural language processing*." However, addressing the limitations and ethical concerns surrounding these systems remains a significant undertaking, as underscored by numerous researchers, highlighting the necessity for further investigation into ChatGPT's implications and future prospects.

4. Discussion & Conclusions: ChatGPT an Educational Guardian Angel or Mischief-Maker in Disguise?

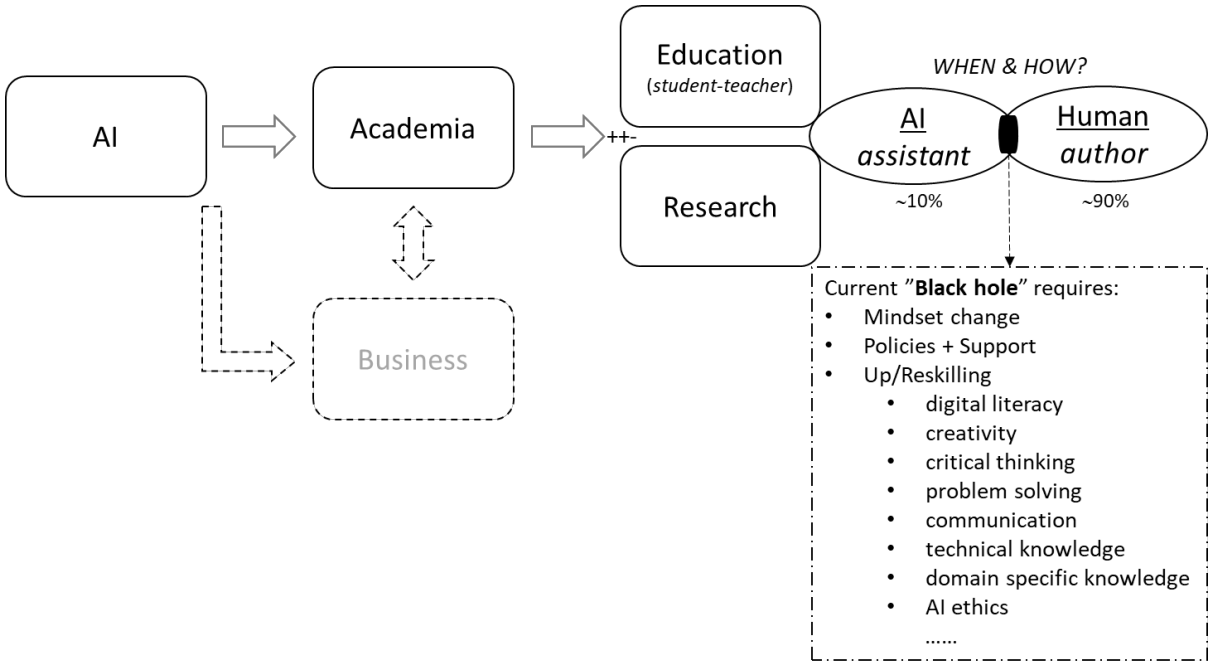
This study demonstrates the impressive advancements in Artificial Intelligence (AI), notably in ChatGPT's capacity to replicate human behaviour and generate persuasive, human-like writing across diverse domains since November 2022, spanning from poems to entire research papers. The review confirms the significant potential of ChatGPT, prompting a need to explore its impact on academia. Given AI's potentially pivotal role in education, research, and business, it is essential for current and future generations to master these tools. Correspondingly, this paper offers insights into ChatGPT-3.5's utilisation in research and education, highlighting challenges and opportunities for stakeholders and posing important questions for future research. It holds

value for policymakers, educators, researchers, and practitioners, offering both theoretical insights and practical recommendations to enhance and safeguard the future use of AIs in academia. Theoretically, this study contributes additional insights to the ongoing discourse surrounding the utilisation of chatbots in academia as it delves into the countless opportunities and challenges presented to each stakeholder. Additionally, it highlights practical recommendations and underscores the necessity for collaborative efforts from all involved parties globally to enhance and safeguard the future utilisation of AIs.

4.1. ChatGPT's Longevity: Control Lies in Our Hands Regarding 'WHEN' and 'HOW'

The analysis underscores ChatGPT's multifaceted utility, extending beyond simple conversation to enriching human knowledge and enhancing capabilities. Seamlessly streamlining processes, ChatGPT serves as a valuable asset, offering efficiency and effectiveness in tasks spanning technical challenges like mathematics, project management, engineering, programming, and healthcare, as well as non-technical areas such as language, art, and literature (RQ1). The utilisation of chatbots also raises various ethical issues concerning data privacy, data bias, accountability for accuracy, transparency shortcomings, and potential for misuse, among others. According to the findings, to this day, the 3.5 version possesses certain limitations, including the absence of common sense, a nuanced understanding of context, potential biases in training leading to output bias, challenges with complex reasoning, and an incapacity to process more intricate information (Baidoo-Anu & Owusu Ansah; 2023; Dwivedi et al., 2023; Gill & Kaur, 2023; Kasneci et al., 2023; Rahman & Watanobe, 2023; Ray, 2023;. Shidiq, 2023; Tlili et al., 2023). Therefore, it is crucial to bear in mind the constraints of ChatGPT while utilising it, and one should avoid relying entirely on this still developing technology as the output may be just "*an opinion without reference*" (Tlili et al., 2023, p. 10) from a "*sophisticated bullshit generator*" (Dwivedi et al., 2023, p. 34), so at present "*Nothing should be taken for granted*" with ChatGPT (Tlili et al., 2023, p. 19). In alignment with the conclusions of previous works, it is imperative to emphasise that we are in the nascent stages of the Chat/AI-journey, with many unexplored areas (Aydın & Karaarslan, 2023; Dwivedi et al., 2023; Farrokhnia et al., 2023; Ray, 2023; Rudolph et al., 2023). Consequently, the implementation, utilisation, and dissemination of GPT results should be guided by distinct principles of responsibility and ethics (including considerations related to bias and discrimination, privacy and security, technology and information misuse, accountability, transparency, and social impact). As it is suggested, tackling these challenges will optimise AI models, enhancing their performance, utility, and user experience. This improvement extends their effectiveness across applications and industries, promising streamlined processes, improved efficiency, cost reduction, and collaboration (Dwivedi et al., 2023; George & George, 2023; Gill & Kaur, 2023; Rathore, 2023; Ray, 2023).

FIGURE 7. SUMMARY OF FINDINGS ON CURRENT HUMAN-AI ACADEMIC COLLABORATION



Source: own compilation

This paper can also serve as a reference study, raising awareness among academic stakeholders about the potential misuse of chatbots and prompting the implementation of sustainable measures to address these concerns. Moreover, it can aid in comprehending the challenges linked to the extensive use of chatbots and AI in education and research. While ChatGPT currently affords numerous possibilities, like automating basic school tasks, providing personalised learning materials, and assisting researchers (in the initial stages), its widespread acceptance is currently confined to basic, repetitive tasks such as data mining and language editing (RQ1). As uncovered, human expertise, judgment, and creativity remain irreplaceable, and the deeper integration raises concerns about user (data) safety, the origin and reliability of data, and the ethical-responsible use of the output. Based on the research, recommendations include human authors meticulously reviewing and validating information produced by ChatGPT (Cotton et al., 2023; Dwivedi et al., 2023; Rahman et al., 2023; Thorp, 2023), acknowledging that AI cannot be a real (original) author and any AI assistance should be mentioned in all works (see for example the acknowledgements of Cotton et al. (2023)). Additionally, a "*Not By AI badge*" approach can be used – if a minimum of 90% of the content is human-produced (which aligns with the presently accepted theoretical threshold – see Figure 7). Practically speaking, for the future optimisation of the benefits and mitigation of risks currently associated with ChatGPT, the broader stakeholder group should consider the following aspects: (1) bidding farewell to traditional, yet outdated (academic) practices; (2) acknowledging and valuing the role of human 'checkpoints' in the process; (3) enhancing users' competencies to adapt alongside evolving technologies; and (4) fostering the development of ethical and responsible chatbots, along with the formulation of pertinent policies, guidelines, and practices for the secure, ethical, and effective utilisation of AIs (AlAfnan et al., 2023; Baidoo-Anu & Owusu Ansah, 2023; Firat, 2023; Tlili et al., 2023).

Despite the existing misconceptions discovered during the review, ChatGPT is not diabolical (RQ2), and dismissing it based on such beliefs may result in missed opportunities for innovation

(Choudhury & Shamszare, 2023; Kooli, 2023). In understanding with Gill and Kaur (2023), Rudolph et al. (2023) and Kasneci et al. (2023), this paper underscores the notion that although technology strives to enhance our daily experiences, it is our responsibility to exercise caution in the use of it (i.e., ChatGPT-3.5), as its application ultimately depends on how we humans utilise it, akin to any inanimate object: we must critically assess and address privacy, security, environmental sustainability, regulatory, social, and ethical concerns. This process necessitates ongoing human oversight, guidance, and critical-creative thinking to ensure responsible and sustainable scaling of technological advancements. As a result, this paper also invites academia policymakers, business professionals, and technology experts to collaborate and initiate dialogues on the proper and constructive utilisation of emerging GAI tools to enhance education, research and science, since there is a great concern that the future misuse of AI intelligence systems and chatbots may undermine the goal of fostering knowledge and capacity-building processes. To pre-empt this, there is a need for a mindset change, clear policies, support for learning and adapting to them through training, and upskilling/reskilling (see Figure 7). It is crucial to understand WHEN (for what purposes) and HOW we can utilise AIs fairly and ethically, maximising their potential to the fullest extent possible.

As a final remark, the observations strongly indicate that a new era of AIs, spearheaded by ChatGPT, is on the horizon, particularly in the realms of education and research. Embracing such a significant transformation is essential for academia to stay abreast of evolving trends. Resisting progress by reverting to traditional methods like 'pen and paper' would be akin to burying our heads in the sand in an increasingly tech-savvy world. Technology and AI are constantly evolving alongside their roles in society. As an example, Google's recent launch of 'Gemini,' an AI model integrated into all Google apps, is positioned to outperform even OpenAI's GPT-4. Likewise, the introduction of voice as a recent ChatGPT feature presents numerous new capabilities. Additionally, the integration of DALL-E and the potential to generate images with ChatGPT, along with the Consensus expansion, which answers queries based on published papers, further contribute to the evolving field of AI. Naturally, actions prompt reactions; for instance, Turnitin, a leading anti-plagiarism tool, is currently striving to improve its ability to detect content generated by ChatGPT. As of now, the outcome of this ongoing pursuit remains uncertain in the game of cat-and-mouse. To navigate this evolving landscape successfully, it is imperative to continuously explore the potential of (G)AIs, formulate comprehensive guidelines, and foster critical and creative thinking skills. This approach will contribute to the development of a technologically advanced, inclusive, and effective educational landscape as the true AI race is just beginning…

"The rise of powerful AI will be either the best or the worst thing ever to happen to humanity. We do not yet know which."

Stephen Hawking (2016)

4.2. Limitations and Future Directions

While the Systematic Literature Review served as a valuable method to assess the existing knowledge on ChatGPT, it is essential to recognise the limitations of this study, which necessitate further investigation. As an SLR (see Tranfield et al., 2003; Moher et al., 2009; Okoli & Schabram, 2010; Gough et al., 2012; Anand et al., 2022), the primary limitation stems from the absence of primary research.

Furthermore, the decisions made in a review can be subject to debate, influenced by many factors such as the researcher's background, expertise, or perspective. For example, the keywords or quality criteria used (e.g., prioritising Q1-Q2 journal articles) may lead to the exclusion of pertinent studies, and the sample is inherently constrained by the available offerings in the chosen databases. While abundant research exists in this field, with mostly qualitative ones, as we can see, many reviews centre on the issue of originality (plagiarism) and the future of assessments, representing just a fraction of the broader ChatGPT landscape. While relying on snapshots of findings (qualitative or quantitative) provides a comprehensive view at a given point in time (AlAfnan et al., 2023; Shidiq, 2023), it is crucial to supplement these with more longitudinal, comparative, and experimental studies. This approach is essential for acquiring a more profound comprehension of the long-term effects and various impacts and expectations from stakeholders, especially educators, researchers, and students, as also underscored by Firat (2023). Proposed avenues for future research encompass (1) monitoring the performance of ChatGPT over time; (2) designing a sustainable AI-enhanced curriculum; (3) examining AI acceptance, applicability, accessibility and potential risks; (4) exploring the application and assessment of responsible and ethical policies, practices, and regulations; (5) AI as an (co-)author?; (6) critical skills for AI usage, and (7) investigating the adoption of ChatGPT across diverse industries (Figure 6). Future research should aim to evaluate these dilemmas and devise effective solutions through quantitative research. Given the complexity and dynamic nature of this field, interdisciplinary research collaborations are recommended: bringing together expertise from education, research, computer science, psychology, ethics, and other relevant fields can contribute to a more comprehensive understanding of the manyfold impacts of ChatGPT. While this study refrains from providing a definitive answer on whether '(d)evil' AI can replace humans in the near future, it adds value to both the literature and practical applications by attaining a deeper comprehension of the novel Chat-phenomenon and identifying crucial questions and directions for future research.

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Acknowledgement

As a non-native English speaker, the author acknowledges employing ChatGPT (https://chat.openai.com) for language editing purposes and generating title ideas while writing this article (see Appendix – Figure A1).

Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

Corresponding Author

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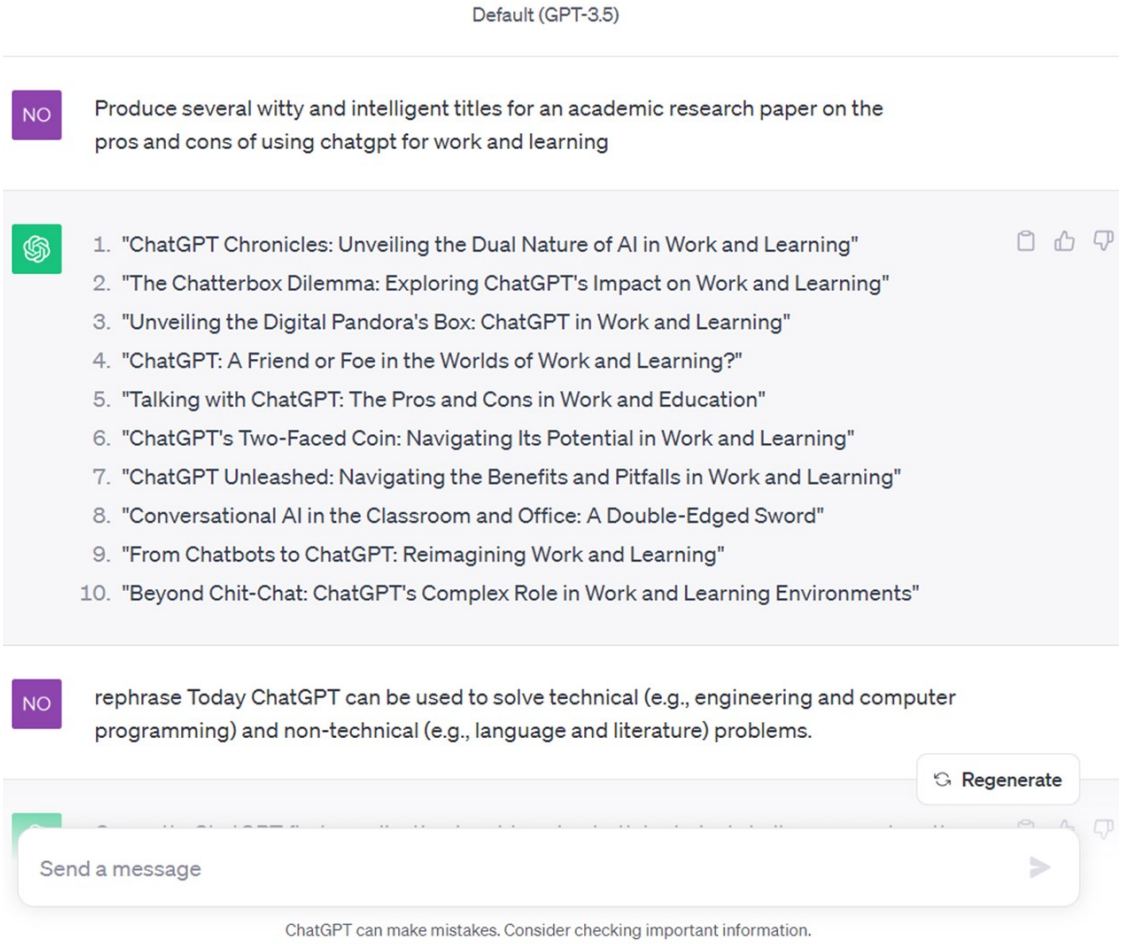
Appendix

FIGURE A1. CHATGPT IN 'PLAY'



Source: ChatGPT (https://chat.openai.com/)

ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp30-46

GILE Journal of Skills Development

Conceptualisation and Operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool

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Abstract

The purpose of our manuscript is to conceptualise and operationalise the Personal Brand V.A.L.U.E. Career Development Tool. The V.A.L.U.E. acronym stands for Vision, Ability, Love, Understanding, and Ecosystem. The paper adopts a case study design based on qualitative insights via an in-depth and semi-structured interview with an individual who has used the Personal Brand V.A.L.U.E. Career Development Tool over five years, initially in their final year of university (2018-2019) and subsequently as a graduate in the labour market (2019-2023). The lived experience provided through the case study provides insights into the operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool for (i) preparing and navigating the university-to-work transition, (ii) navigating an unplanned career transition, and (iii) navigating a planned career transition. The theoretical contribution comes from conceptualising the Personal Brand V.A.L.U.E. Career Development Tool. The practical contribution comes from offering implications for (a) students and universities and (b) workers and organisations to operationalise the tool. A future research agenda is also presented.

***Keywords/key phrases*:** career development, case study, employability, graduates, intrapersonal brand, interpersonal brand.

1. Introduction

In 1997, Tom Peters coined the term 'personal branding'. He stated,

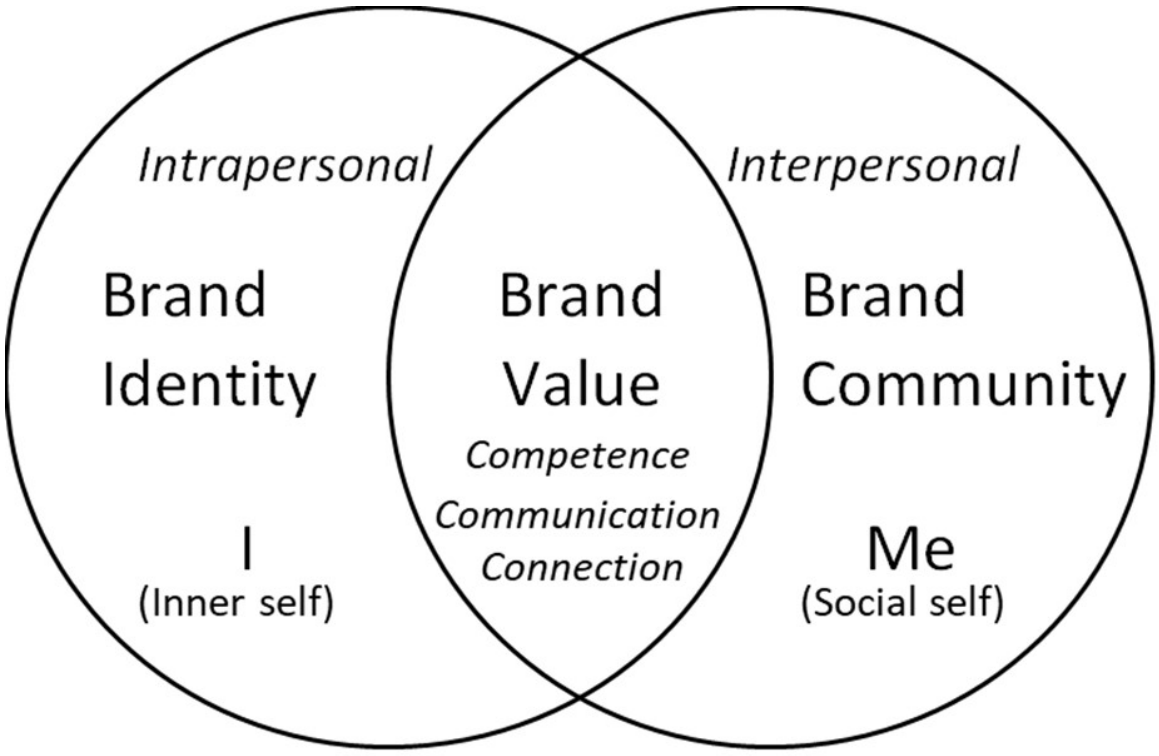
> *We are CEOs of our own companies: Me Inc. To be in business, today, our most important job is to be head marketer for the brand called You. It's that simple – and that hard. And that inescapable. (Peters, 1997, Online)*

Peters' perspective took the concept of 'branding', which had historically applied to corporations or products, and applied it to individuals to demonstrate authentic reputation and value (Sylvester, 2016; 2019). Therefore, personal brand value is the reputation, meaning, and

association derived from two-way communication (Sylvester & O'Reilly, 2017). Consequently, "your personal brand should be about how you want to show up in the world, not just about what you want to achieve" (Brower, 2019, p. 81).

According to Sylvester and Donald (2023), personal brand management has three distinct themes: identity, community, and value. Brand identity focuses on the intrapersonal aspects of the inner self. Brand community focuses on the interpersonal aspects of one's social self. Brand value intersects brand identity and community, focusing on competence, communication, and connection. Figure 1 illustrates the three themes.

FIGURE 1. THE THREE THEMES OF PERSONAL BRAND MANAGEMENT



Source: © Sylvester, 2023. Used with permission.

In the context of higher education, "students possess a high degree of awareness about the need for employer-oriented personal branding" (Kushal & Nargundkar, 2021, p. 48). The findings are promising because crafting an intentional and authentic personal brand has been shown to increase the chances of career success, getting noticed, and getting ahead in a competitive labour market (Gorbatov et al., 2019; 2021).

However, a versatile tool for personal branding that (a) incorporates these three themes and (b) can be used across educational and workplace contexts to prepare for and undertake career transitions is lacking. One plausible reason for this specific gap is that graduate and worker employability literature streams have tended to develop in parallel (Akkermanset al., 2023), as has the employability and career development literature (Healy et al., 2022), despite sharing similar tenets. Additionally, existing models that focus on aspects of personal branding fail to integrate different career theories or lack a holistic approach, which risks an overly narrow view and limits the potential benefits.

To address this gap, the purpose of our manuscript is to conceptualise and operationalise the Personal Brand V.A.L.U.E. Career Development Tool. The V.A.L.U.E. acronym stands for **V**ision, **A**bility, **L**ove, **U**nderstanding, and **E**cosystem. The manuscript is structured as follows: The initial focus is on the conceptualisation of the tool. Next, an overview of the case study method is presented, outlining our approach of interviewing an individual who has used the tool for the last five years across higher education (2018-2019) and labour market contexts (2019-2023). Our attention then turns to the lived experience provided through the case study, offering insights into the operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool for (i) preparing and navigating the university-to-work transition, (ii) navigating an unplanned career transition, and (iii) navigating a planned career transition. The manuscript concludes with (i) the theoretical contribution of conceptualising the Personal Brand V.A.L.U.E. Career Development Tool, (ii) the practical implications for (a) students and universities and (b) workers and organisations to operationalise the tool, and (iii) a future research agenda.

2. Conceptualisation of the Personal Brand V.A.L.U.E. Career Development Tool

Having introduced the three themes of personal brand management: brand identity, brand community, and brand value (Sylvester & Donald, 2023), our attention now shifts to conceptualising the Personal Brand V.A.L.U.E. Career Development Tool.

The tool is the creation of the lead author. He was the world's first Professor of Marketing and Personal Branding. He is also a personal and business brand strategy coach and consultant. The V.A.L.U.E. acronym stands for **V**ision, **A**bility, **L**ove, **U**nderstanding, and **E**cosystem, which we introduce sequentially. Moreover, the tool incorporates the intersectionality of Persistence, Purpose, Positioning, Profile, and Talent. Our conceptualisation of the tool concludes with a visual representation.

2.1. Vision

The vision dimension facilitates the establishment of purpose and direction in one's life and career by shaping an enduring strategic course to define a brand's essence and future objectives. This approach aligns with the Career Construction Theory (Savickas, 2005), whereby an individual's values, mission, and aspirations drive their vision. A clear and compelling vision is critical to successful brand management (Kapferer, 2020). Subsequently, creating a unique brand identity enables a person to influence their image and reputation in the minds of others, which can be a powerful way of signalling employability to prospective employers as a means to operationalise employability (Anderson & Tomlinson, 2021).

2.2. Ability

Ability captures the interplay among expertise, innovation, fostering social connections, consistent performance, and resilience in adversity. It is the competence to perform a specific function or task effectively and efficiently, thus meeting (or exceeding) other people's expectations and requirements. The ability dimension aligns with the Conservation of Resources theory (Hobfoll, 1989), whereby acquiring personal resources, including psychological resources such as resilience, can lead to increased employability and well-being (Nimmi et al., 2021; 2022). Furthermore, ability is linked to forms of graduate and employability capital (Agnihotri et al., 2023; Donald et al., 2023; Pham & Jackson, 2020) and the indicators of a sustainable career of health, happiness, and productivity (Van der Heijden & De Vos, 2015). Ability thus reflects the need for an individual to equip themselves with the necessary competencies and mindset to navigate contemporary labour markets (Marine, 2023),

whereby psychological strengths and skill enhancement can facilitate an individual's ability to navigate uncertainty in the labour market (Nimmi et al., 2023). Such benefits can also transcend to one's direct reports and employer because contemporary managers need to be responsive and resilient to threats and opportunities to cope with uncertainty and risk (Kelly, 2023).

2.3. Love

Love signifies a profound emotional connection and strong affinity for a particular career. Love can be driven by a combination of rational and emotional factors, acknowledging the complex interplay of various influences such as family, personality, self-image, and self-efficacy (Bandura, 1977). The love dimension aligns with the Career Construction Theory (Savickas, 2005), whereby identifying one's passion can inform self-efficacy and identity construction. Love can also evolve over time, leading to an individual navigating various workplace contexts over their career span, which maps to Sustainable Career Theory's person, context, and time dimensions (Van der Heijden & De Vos, 2015). The influence of the interconnected and interdependent nature of different actors captured by Career Ecosystem Theory (Baruch, 2015), when combined with Sustainable Career Theory (Van der Heijden & De Vos, 2015), is captured by Sustainable Career Ecosystem Theory (Donald, 2023; Donald & Jackson, 2023).

2.4. Understanding

Understanding refers to the job and industry a person currently works in or plans to enter. Understanding involves researching the job and industry, acquiring knowledge about the necessary skills and qualifications, and gaining insight into the job responsibilities and prevailing work culture. The understanding dimension ensures that a person's choice of job and industry aligns with their values and goals, according to Career Construction Theory (Savickas, 2005). Additionally, understanding facilitates an individual to identify and acquire the necessary resources, according to the Conservation of Resources Theory (Hobfoll, 1989), and to show one's capabilities to a potential or current employer, per Signalling Theory (Spence, 1973).

2.5. Ecosystem

An ecosystem refers to the interactive nature of the different dimensions of one's personal brand to prepare for and navigate career transitions across one's career span. The ecosystem dimension also draws together the Career Ecosystem Theory (Baruch, 2015) and Sustainable Career Theory (Van der Heijden and De Vos) into the Sustainable Career Ecosystem Theory (Donald, 2023; Donald & Jackson, 2023). It also bridges Signalling Theory (Spence, 1973) and Social Exchange Theory (Blau, 1964) to capture the interactions between a person and other actors, thereby determining the sustainability of a career ecosystem. The approach also acknowledges an underlying reciprocity mechanism between the individual and their employer (Ahmad, 2018). Interestingly, Akkermans, Tomlinson et al. (2023) recently proposed bridging these two theories to advance career theory research.

2.6. Intersectionality

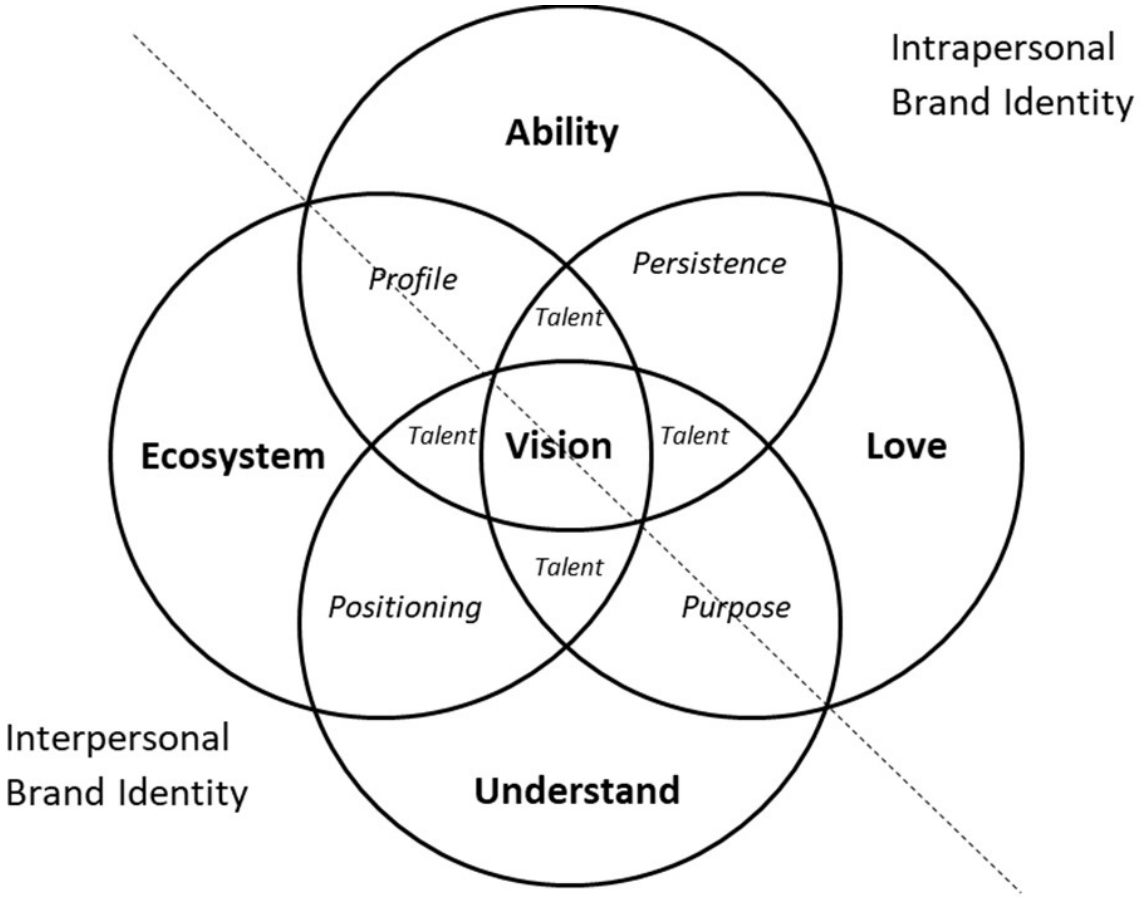
The Personal Brand V.A.L.U.E. Career Development Tool also incorporates the intersectionality of **P**ersistence, **P**urpose, **P**ositioning, and **P**rofile. The four **P**s represent intersectionality between two of the V.A.L.U.E. dimensions: Persistence (Ability + Love), Purpose (Love + Understanding), Positioning (Understanding + Ecosystem), and Profile (Ecosystem + Ability). Additionally, **T**alent captures the intersectionality of any three of the

V.A.L.U.E. dimensions. Please see Sylvester and Donald (2023) for additional information on the intersectionality of the tool.

2.7. Visual Representation of the Tool

Figure 2 visually represents the Personal Brand V.A.L.U.E. Career Development tool.

FIGURE 2. PERSONAL BRAND V.A.L.U.E. CAREER DEVELOPMENT TOOL



Source: © Sylvester, 2023. Used with permission.

3. Method

3.1. Research Stance

The purpose of our manuscript is to conceptualise and operationalise the Personal Brand V.A.L.U.E. Career Development Tool. Consequently, a case study design is appropriate when seeking to understand more about an emerging phenomenon (Stake, 2000), and a qualitative approach using a single case study method was adopted (Yin, 2003). Within a case study method, a case can look at the micro, meso, or macro levels and incorporate single or multiple actors (Swanborn, 2010). We focused on the lived experience of a single individual (micro level) as they used the model across the university and labour market settings (meso levels).

3.2. Sample and Data Collection Procedure

The participant in this study used the Personal Brand V.A.L.U.E. Career Development Tool during their final year of university studies in the USA (2018-2019), where they completed a Music Business Major, a complimentary Major in Musical Theatre, a Minor in Marketing, and

a Cognate in Personal Brand Management. They subsequently used the tool to navigate the labour market in the years since graduation (2019-2023). We refer to the participant throughout this manuscript using the pseudonym Ruby.

Before data collection, we secured ethical approval from the Institutional Review Board (ERGO: 89074). Next, the lead author emailed Ruby and provided her with a copy of the participant information document and the opportunity to ask any questions about the study. Ruby then provided informed and written consent to participate. The lead author subsequently conducted a semi-structured interview with Ruby in October 2023, which lasted for 1 hour and 32 minutes. Example questions included "How did you use the Personal Brand V.A.L.U.E. Career Development Tool during your time at university to prepare for the university-to-work transition?", "How did you use the tool during your time since graduating from university?", "What did you find helpful about the tool?", "Did you feel there were any limitations to using the tool?".

3.3. Analytical Procedure

The lead and second authors each listened to the interview recording multiple times independently of one another, making notes under three pre-agreed headings: (i) preparing for and navigating the university-to-work transition, (ii) navigating an unplanned career transition, and (iii) navigating a planned career transition. The focus was to establish how Ruby operationalised the Personal Brand V.A.L.U.E. Career Development Tool in these three scenarios.

Once the authors had independently captured the operationalisation approaches across these scenarios, supported by relevant participant quotes, they then met to discuss their respective findings. Inter-rater reliability was determined using Cohen's *K* value, where alignment was very high [0.92] because it exceeded 0.82. Differences between the coders were discussed until an agreement was reached. After the meeting, the second author merged the findings into a single report, and both authors listened to the interview independently for the final time, which included capturing additional participant quotes.

Once the two authors reached a final consensus (Saldaña, 2015) on the finalised report, a copy was sent to Ruby to confirm the information. Thus, our analytical procedure demonstrates trustworthiness (Lincoln & Guba, 1985) and credibility (Choi & Roulston, 2015). The final case study report is now provided.

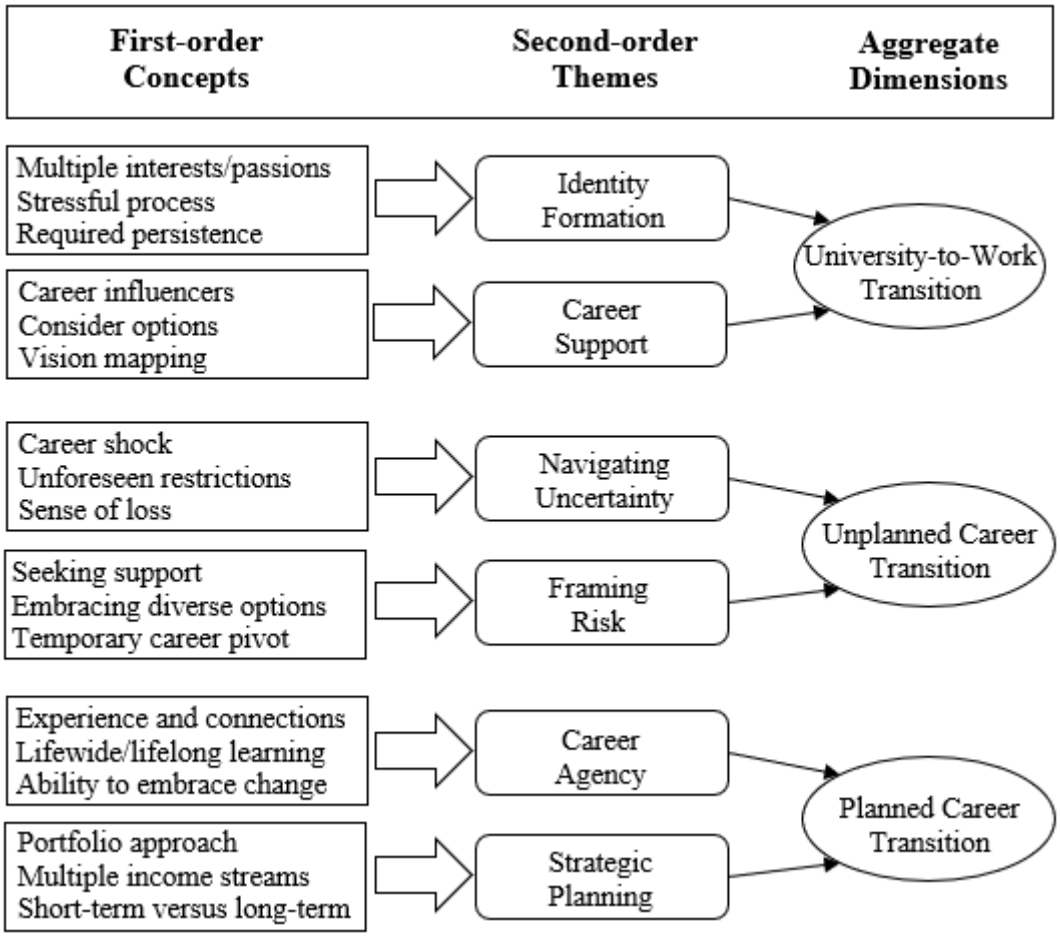
4. Operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool

4.1. Overview of the Findings

Figure 3 (next page) shows the first-order concepts, second-order themes, and aggregate dimensions, demonstrating the final data structure as approved by Ruby.

We now use the three aggregate dimensions as subheadings to frame our analysis to evidence the operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool.

FIGURE 3. FIRST-ORDER CONCEPTS, SECOND-ORDER THEMES, AND AGGREGATE DIMENSIONS EVIDENCING THE FINAL DATA STRUCTURE



Source: Authors' own creation based on guidance and notation by Gioia et al. (2013, p. 21).

4.2. Preparing For and Navigating the University-To-Work Transition

4.2.1. Theme 1: Identity Formation

Ruby decided on a Music Business Major, a complimentary Major in Musical Theatre, a Minor in Marketing, and a Cognate in Personal Brand Management. As Ruby explains,

> *Marketing and branding is how you make money, so it's an important part of the music business. I chose the Music Business Major over the Marketing Major. I wanted to take more music business classes because I thought those were bringing together two of my interests more than Marketing. But I still wanted all of the Marketing classes that I thought would be beneficial, so that's where the Marketing minor came in.*

Consequently, the pursuit of multiple interests and passions often meant that certain people only knew about certain aspects of Ruby's identity:

> *My Finance Professor didn't know I was in the musical until I invited him to go. And he replied, "You are one of the best students in the class. I had no idea you also sing". Same thing with my Choir Professor not knowing about my business courses. So I think because I have multiple interests, everyone in my life knew me in a very compartmentalised way.*

Her choice of studies enabled Ruby to pursue multiple interests and passions. However, this was a stressful process:

> *Yes, I did find it quite stressful. I took over 20 credit hours a semester, which not everybody does. I could not have done it on my own. There were several times I went to a Professor's office crying. College is a stressful time for almost anybody, but my workload added to the stress. There were particular times of the year, like finals season or the push right before Christmas break, when everything was due at once: assignments, a big show.*

Therefore, taking on so much, while beneficial to identity formation, also required persistence:

> *If I had not been persistent, it would have been really easy for me to just give up on performing and say I'm going to be practical and only do business because I want to make money. I've definitely had moments of imposter syndrome. But I loved performing. I loved it too much to get rid of it, to not be persistent.*
>
> *My friends thought I was a little crazy, trying to do the major, the complementary major, the minor, and the cognate. But nobody thinks I'm crazy now because I followed through. Every class I took has been useful for me in the four years since graduating.*

4.2.2. Theme 2: Career Support

During university, Ruby also spoke about various career influencers and their roles in helping her consider her options. Ruby's parents, specifically her father, were pleased with her decision to add business, marketing, and personal branding courses.

> *A lot of parents have a hard time with the idea of their kids majoring in the Arts in general because they are worried they will spend a lot of money on a degree and then not make any money in performing, and there are people where that's what happens. So, I think they had their reasons to be a little bit worried. But when I started taking the business classes, my dad, specifically, was like, "Good, you're going to provide a backup plan for when performing doesn't work out. You can go into a business job, so this is great".*

Nevertheless, her approach was met with resistance by some of the Professors:

> *They [my Professors] thought that because I was not committing to one thing, I was not committed to pursuing musical theatre.*

However, another Professor had a different view:

> *Other people thought I was doing too much or not committing to anything. Then my Personal Branding Professor said, "It's ok, you can be multifaceted. You can have multiple passions. You should absolutely pursue multiple passions".*

Interestingly, in retrospect, all Ruby's Professors now recognise the value of her approach:

> *They thought I was not committed to one thing at the time. But now I've been out of university for four years, I've had more musical theatre jobs than a lot of others have. So they don't think that now.*

Ruby also spoke of the use of a vision board as part of the Personal Branding V.A.L.U.E. Career Development Tool and the value her Personal Branding Professor provided in helping her to map out a vision for the future:

> *I truly think the vision board was the most useful thing I did in college because I still have it. Not much has changed on it. I've thought about re-doing it recently. But not because the subjects I put on it have changed. More so because I've ticked so many things off that I'm now ready to set new visions. It helped me get really specific about what I wanted. I wanted to live in New York. I wanted to work for Disney. I wanted to be a singer on a cruise ship with this cruise line… So, I didn't feel I should sacrifice learning about business to perform, but I also didn't want to stop performing. I wanted both. My Personal Branding Professor was the first person to say, "It's good that you want both, and you should do both".*

The vision board also helped Ruby acquire applied experience, which proved invaluable:

> *And then you start thinking, what steps must I take now? I was really scared about some of the things on my vision board, but I really wanted to try. I wanted to work in these companies; I wanted to work in these industries. These are some of my dream jobs. So, I was more scared about not trying to achieve those dreams and goals. I interned at Disney, which offered networking opportunities and opportunities to learn about Disney as a company and brand.*
>
> *When you're in a class, a lot of times, it's hard to see how this class relates to my actual career path. So, seeing in action the practical application during the degree was way more important. That is what employers look for – they don't care what classes I took. They care about 'what internships did I do?, 'what real-world experience did I provide?', and 'what projects were used in an actual business'.*

4.3. Navigating An Unplanned Career Transition

4.3.1. Theme 3: Navigating Uncertainty

After graduating, Ruby secured a contract with her dream employer, Disney, in her dream role as a performer, following a semester-long internship with the company during her time at university. She was working full-time in the ecosystem that is 'performing'. Then, a career shock occurred due to unforeseen restrictions. As Ruby explains:

> *I started in January 2020, but it was cut short in March 2020 because of the pandemic. I was there for three months, but then everything shut down. The park shut down. The performances shut down. That was a really difficult period because I'd had the first internship at Disney and all these networking connections at Disney. I graduated and got to go back as a performer, which was always a dream of mine. I was enjoying it. I knew there were opportunities for me to be promoted. There were extra performance opportunities I was going to be able to audition for. So, the pandemic really sent me for a loop.*

Subsequently, Ruby experienced this sense of loss, which was compounded by challenging labour market conditions:

> *It was particularly poor timing because it was such a dream of mine, and that particular thing was on my vision board. Then, a lot of people were in the same boat. A lot of theatre and performance opportunities during the pandemic with airborne transitions did not exist for a year and a half.*

4.3.2. Theme 4: Framing Risk

Ruby then decided to reach out to her old Professor for support, in whose class she had originally been introduced to the Personal Brand V.A.L.U.E. Career Development Tool and produced the vision board. As Ruby narrates:

> *I remember I called the Professor because I was looking for marketing jobs and feeling a little insecure about it. Because of the pandemic, not a lot of people were hiring. I was applying to a lot of things and getting denied. Not everybody was able to hire, and for any jobs that hiring was taking place, there were a lot of applicants for them.*

Through these conversations, Ruby was encouraged to embrace diverse options:

> *So, the Professor said they knew of a Church that needed someone to help with marketing. I ended up working with them for over a year as their social media manager.*

The outcome was to overcome the career shock caused by the pandemic via a temporary career pivot:

> *Once I started doing the social media manager job with the Church, I also ended up getting an internship with a marketing agency that turned into a long-term contractor position. Then, another of my former Professors contacted me about a non-profit, so I ended up working with them for a year. So suddenly, I had two clients of my own and clients through my internship with the marketing agency. Then, a Symphony Orchestra who I had interned with during university reached out and asked me to be the Interim Executive Director. Suddenly, I had four or five different contracts with different places, and I was making more money than I had ever made.*

4.4. Navigating A Planned Career Transition

4.4.1. Theme 5: Career Agency

Ruby could draw on her personal brand portfolio of experience and connections to use the vision board to navigate a planned career transition. For example, her marketing roles came about through connections with her old Professors. The Symphony Orchestra role came about because Ruby had previously interned there. The next phase involved gaining tailored experience and connections, which began with a move to Nashville.

> *The job in Nashville was very much a music business job. It was a marketing apprenticeship for a music company owned by a Grammy-winning Songwriter and Producer. The owner knew a lot of people in the industry; he had just signed a publishing deal and was trying to enter the country music space. I just thought that even though they were not offering me a lot of money, the work experience and connections were really valuable to me.*

Ruby explains the value of embracing lifewide and lifelong learning opportunities:

> *In early 2022, I secured a job to perform at a professional regional theatre right outside of Nashville. I was getting paid for it. I also had my marketing agency job that was remote. I also had my Nashville music industry job. I was doing all three of those things. I was so thankful. They were things I had developed skills for over time and could utilise everything I said I would two to three years after graduating.*

Ruby was then offered a job on a cruise ship in August 2022. It offered her a dream job and dream remuneration, whereby Ruby now had a career agency and was in demand:

> *I had auditioned at this place earlier in the year, and suddenly, they called me and offered me this lead singer contract for a cruise ship. It was more money than I was making from all of the current three jobs combined. Cruise ship work has been on my vision board as well. And they happened to be rehearsing for two months in New York before we would board a brand new ship as the inaugural cast of performers.*

However, it required Ruby to embrace continual change:

> *The catch was that I had to fly to New York within four days of this call, which I was not expecting. It meant I needed to pack up everything, quit, and move immediately. Letting other people down was the hardest part of all this. It put me in a really tough spot. But at the same time, this opportunity was very much in line with my vision for my life and career. It was an awesome opportunity, but the timeline was very stressful.*

4.4.2. Theme 6: Strategic Planning

The initial portfolio approach generated multiple income streams. Ruby's income was much higher than the job offer in Nashville, but keeping some of the existing contract work enabled her to supplement the initial pay in Nashville and gain access to valuable contacts in the music industry.

> *Thankfully, I was making a decent amount of money from all of these clients that I had acquired because of the pandemic and could make it work with the lower pay in Nashville. I did both jobs for the first year. But for the first six months, I kept all my clients and then after that, I had too little hours in the day. So I helped two of my clients find other contractors. I'd also been able to save money during the pandemic to help fund this transition.*

Ruby made a series of short-term decisions that ultimately helped her achieve her long-term dream and aspirations. She was planning, had a purpose, went down to Nashville, and then on the cruise:

> *During this time in Nashville, I still had my vision board. I still had New York on my mind because that's where most of the musical theatre is – and obviously, there are a lot of business and marketing jobs. So Nashville was always a stepping stone to New York.*

Her vision was to integrate music business, musical theatre, and marketing with a career based in New York, which she has now achieved.

> *I planned from the beginning. When I accepted the cruise job, I knew that moving to New York after would make the most sense. I worked and saved as much money as I could. I went with the cheapest place I could find in New York to live, but it is safe and*

an easy commute. I currently work at a rehearsal studio space in midtown in the theatre district, Broadway, where I book and sell space to theatres and performers who need a place to rehearse. I've also got back into digital marketing. I've literally been able to use everything and continue to use everything I've acquired through university and since.

5. Discussion

Our attention now turns to considering (a) theoretical implications, (b) practical implications for students and universities, (c) practical implications for workers and organisations, and (d) limitations and future research agenda.

5.1. Theoretical Implications

The theoretical contribution comes from conceptualising the Personal Brand V.A.L.U.E. Career Development Tool. Our approach addresses the need to bridge the graduate and worker employability literature (Akkermans et al., 2023), as well as the employability and career development literature (Healy et al., 2022). Additionally, the tool captures the three distinct themes of personal branding offered by Sylvester and Donald (2023): brand identity (intrapersonal), brand community (interpersonal), and brand value (the intersection of intrapersonal and interpersonal). It also helps to advance an emerging interest in integrating personal branding and career research (Gorbatov et al., 2019; 2021), offering interdisciplinary and transdisciplinary approaches.

Moreover, the Personal Brand V.A.L.U.E. Career Development Tool integrates various theories without being limited by the constraints of any single theory. In the conceptualisation section of the manuscript, references were made to a myriad of theories, including Social Exchange Theory (Blau, 1964), Signalling Theory (Spence, 1973), Conservation of Resources Theory (Hobfoll, 1989), Career Construction Theory (Savickas, 2005), Sustainable Career Theory (Van der Heijden & De Vos, 2015), Career Ecosystem Theory (Baruch, 2015), Sustainable Career Ecosystem Theory (Donald, 2023), and Employability Capital (Donald et al., 2023). The outcome of blending these theories is a theoretically sound yet pragmatic tool that ensures versatility and real-world impact, representing the focal contribution of our work. Consequently, the insights from the case study offer practical implications.

5.2. Implications for Students and Universities

The Personal Brand V.A.L.U.E. Career Development Tool offers a critical sequence of five questions encompassing a multi-perspective and interdisciplinary understanding of personal branding and career development. The five-question areas enable students to consider their own specific and individual intra-personal and inter-personal brand V.A.L.U.E. to establish an authentic career development plan. These five questions are: (1) What is your **V**ision?, (2) What is your **A**bility?, (3) What do you **L**ove?, (4) What is your **U**nderstanding?, and (5) What is your employment **E**cosystem?

Universities can support their students in understanding that a brand is an identity, branding is the communication of that identity, and marketing is the communication of the value of that identity. This contributes to discussions around innovative ways to enhance student employability via curriculum interventions (Padgett & Donald, 2023) to prepare students for

sustainable careers by navigating complex and volatile labour markets (Mouratidou & Donald, 2022).

Career professionals can introduce the tool to their students and encourage them to consider the five questions to develop a vision board that captures their dreams, goals, and aspirations. For example, 'I want to work in these industries and for these companies', 'these are some of my dream jobs', and 'these are my dream locations'. Some students may prefer to do this activity in a group setting, others may prefer conducting it during a 1-2-1 session with a career professional, while other students might want to undertake the activity on their own.

When asked about the implications for university students during the interview, Ruby explained:

> *Sometimes, in college, people are scared to verbalise some of their dreams and aspirations because they can seem really big. So, having a physical vision board with specific things can be really helpful. Once you can verbalise and visualise some of those goals and aspirations, it makes it less daunting.*

The individual can then consider what resources they have and what resources they require to develop their identity and achieve their aspirations. Specifically, how can they embrace and articulate the benefits of lifewide and lifelong learning (Cole & Donald, 2022), the experiences, and contacts, that ultimately enable them to fulfil their dreams and aspirations?

5.3. Implications for Workers and Organisations

Ruby also shared her thoughts on the implications for workers:

> *For the tool to be effective, the individual needs to put in a lot of work upfront during college. However, life is always going to be unpredictable, and there will be many moments that you just cannot plan for or predict in advance. Therefore, persistence is critical, especially when career shocks or setbacks inevitably occur, leading to unplanned career pivots along the way.*

Workers can use the model independently to guide their career trajectory. For some individuals, their vision will evolve over time, and the tool can help them acknowledge this and update their vision board accordingly. For other workers, their initial vision might be so clear that the vision board can help them regularly visualise their dreams, goals, and aspirations.

Organisations may wish to introduce the Personal Brand V.A.L.U.E. Career Development Tool to their employees on a 1-2-1 basis or in a group setting. The organisation might also like to share how their company answers the five questions concerning their **V**ision, **A**bility, **L**ove, **U**nderstanding, and **E**cosystem. The approach could also be used during the recruitment process to assess person-organisation fit or deployed in educational settings by organisations to prepare future talent for the university-to-work transition.

5.4. Limitations and Future Research Agenda

Our case study approach focused on one individual's perspective of operationalising the Personal Brand V.A.L.U.E. Career Development Tool during university (2018-2019) and early career stages (2019-2023). Such an approach achieves the purpose of this specific manuscript to conceptualise and operationalise the Personal Brand V.A.L.U.E. Career Development Tool via a *proof-of-concept* approach. However, the next phase in the empirical validation of the tool

will need to involve a larger number of participants and consider the person, context, and time dimensions of a sustainable career (Van der Heijden & De Vos, 2015). For example, understanding the operationalisation of the tool by people in diverse circumstances and geographical locations, including longitudinal studies across one's education and career span.

Another limitation of our study was that we only considered operationalisation from the individual's perspective. While the tool is designed to offer agency to an individual to develop their personal brand, it can also be used in a career coaching setup. Therefore, future research should consider capturing the views of career coaches and other professionals who use the tool to support their clients. Considering the use of the tool within group settings could also offer valuable insights. For example, a lecturer using the tool as part of a personal branding and employability module with a cohort of students to understand the benefits and challenges from an operationalisation perspective. Alternatively, an organisation provides group sessions to their employees to introduce them to the tool and support them regularly to operationalise it throughout their tenure with the organisation.

6. Conclusion

The purpose of our manuscript was to conceptualise and operationalise the Personal Brand V.A.L.U.E. Career Development Tool. The first part of the manuscript focused on the conceptualisation. The second part of the manuscript adopted a case study design based on the experience of an individual who had used the tool for five years. The findings provide insights into operationalisation for (i) preparing and navigating the university-to-work transition, (ii) navigating an unplanned career transition, and (iii) navigating a planned career transition. The final part of the manuscript offered theoretical implications from conceptualising the model and practical implications for (a) students and universities and (b) workers and organisations to operationalise the tool. The manuscript concluded with a future research agenda.

Acknowledgement

The authors would like to thank the participant who gave up their valuable time to share their rich insights.

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Declaration Statements

Conflict of Interest
The authors report no conflict of interest.

Funding
The authors received no financial support for this article's research, authorship, and/or publication.

Ethics Statement
Ethical approval was obtained via the Institutional Review Board.

Consent
The participant provided informed consent before participating in this study.

Data Availability Statement
Access to the dataset is not possible due to ethical approval restrictions.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp47-59

GILE Journal of Skills Development

Continuing Vocational Training in Enterprises: Comparison of Selected Indicators of the Czech Republic and Hungary

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Abstract

This article presents a comparative analysis of Continuing Vocational Training (CVT) in companies in the Czech Republic and Hungary based on selected indicators from the European Union's CVT survey. The study examines the participation of employees, the time dedicated to training, and the primary targeted skills of CVT courses. The results highlight significant differences in participation rates and focus on specific skills between the two countries, with a higher percentage of employee participation in training in the Czech Republic and a particular focus on IT skills in Hungary. The findings suggest that CVT plays a crucial role in enhancing employee skills and organizational competitiveness, highlighting the need to explore further the reasons behind these differences between countries and their impact on policy and practice in vocational education. The study also emphasizes the importance of adapting CVT programs to the rapidly changing labor market and the employer's need to effectively respond to new challenges in skills and competencies.

***Keywords/key phrases*:** employee training, digital skills, education, continuing vocational training, CVTS

1. Introduction

The role of continuing vocational training (CVT) within businesses becomes increasingly important for competitiveness and sustainable development in the dynamic world of global economies. This article explores the role and development of CVT in the Czech Republic and Hungary, two nations with similar but different economic and educational systems.

This topic is crucial because it explains how workplace skill development and ongoing learning can promote organizational and individual growth. The adoption and execution of CVT are essential for keeping up with the quick pace of technological development and changing consumer demands in the context of the Czech Republic and Hungary, two EU members.

The aim of this paper is to conduct a comparative analysis of selected indicators related to continuing vocational training in enterprises between the years 2005 and 2020 in these two countries. Utilizing data from the Continuing Vocational Training Survey (CVTS) methodology, this study seeks to unravel patterns, disparities, and trends in CVT practices within Czech Republic and Hungarian enterprises.

The empirical gap filled by this article was identified based on a literature review conducted by the authors. In the scientific literature, there is no article comparing Czech Republic and Hungary in the examined area. The article provides a summary of data comparing Czech Republic and Hungary in continuing vocational training in companies.

This investigation is crucial for policymakers, educational institutions, and enterprises in both countries to understand the impact of CVT and to foster environments that encourage continual learning and skill development. By examining the evolution of CVT in the Czech Republic and Hungary, we aspire to contribute to the broader discourse on vocational education and training in the European context, offering valuable perspectives for other EU member states and beyond.

2. Theoretical Background

Employee education is an ongoing process that fosters professional growth, guarantees that employees can effectively contribute to the company's objectives, and keeps them abreast of changes in the industry (Armstrong & Taylor, 2020). It's common knowledge that investing in employee education is essential to keeping organizations competitive (Nafari & Rezaei, 2022).

Strategic approaches to employee education center on connecting learning activities to the organization's long-term objectives. The notion of strategic human resource management, which contends that strong alignment between company strategy and effective employee development is necessary for success, lends credence to this approach (Kaufman, 2012).

The efficiency of these strategies can differ based on the company's particular industry, corporate culture, and individual employee´s preferred methods of learning (Jain & Moreno, 2015). Determining the return on investment in education requires measuring the effects of employee training (Phillips & Phillips, 2016). Both quantitative and qualitative methodologies are used in methods for evaluating the efficacy of education, and a variety of outputs, such as business outcomes and employee performance, must be considered (CA, 2018).

2.1. Human Resources

Human Resources (HR) plays an essential role in the movement and development of an organization. Each individual as an empowered entity contributes to the development of the organization as an asset. The global view of the importance of employees is becoming broader and more open. Employees are seen not only as a resource but also as an asset, capital and even an investment for the organization and the company, and it is crucial for companies to develop competent and high-quality human resources (Arifin et al., 2022). The success of the company is due to the fact that it has qualified employees (Infante, 2022). Quality employee performance has a positive impact on both the employees and the company (Djaelani et al., 2021). To

compete, every company must have qualified employees (David, 1995). In this case, this topic is an essential factor that determines the development of the company because employees act as a driving force to achieve the company's goals (Wahyudi et al., 2006).

The abilities, knowledge, experiences, and skills that employees possess, and which are valuable to their employers are collectively referred to as human capital (Knudsen & Lien, 2023). According to Voyvoda & Yeldan (2015), the development of human capital is essential for fostering innovation, productivity, and long-term business growth. Employees must undergo retraining and upskilling in order to be able to use new systems and processes as a result of the shift in skill and knowledge requirements brought about by the introduction of new technologies (David, 2015). Systems of flexible and lifelong learning are becoming more and more crucial to the growth of human capital (Boustan et al., 2014). One of the most important components in developing a competitive advantage is human capital (Kaufman, 2015). Higher human capital levels are associated with better performance and greater readiness for global competition (Rehman et al., 2023).

Human resource development is essentially aimed at achieving a competitive, skilled and competent workforce that supports the productivity and completeness of the company in today's global competitive environment (Santosa, 2002). Companies need to be able to overcome labour challenges and develop appropriate integrated management strategy (Sinambela, 2021). Focusing on both short-term and long-term strategy depends on their consistency (Hariani et al., 2019). At this stage, human resource development can be realized through training and human resource development activities, which will allow the full potential of each employee to be more effectively unlocked and utilized. One of the most essential functions of human resource management is training (Koteswari et al., 2020).

2.2. Employee Training

The process of improving employees' abilities, knowledge, and skills following by the demands of their job roles and the organization's overall strategic goals is known as employee training (Blanchard & Thacker, 2013). Training enhances the skills and knowledge of employees, thereby aligning their skills with the needs of the job (Koteswari et al., 2020). In addition to the benefits companies receive from employee training, costs are also reduced. To guarantee that learning objectives are met and training expenditures are profitable, adequate training should be methodically planned, carried out, and assessed (Yang, 2022).

A vast array of training techniques exists, ranging from conventional face-to-face seminars to contemporary virtual learning environments. The approach selected should consider the objectives of the company as well as the unique requirements and learning preferences of the staff (Noe, 2019).

Chen's (2014) study focuses on factors affecting employee retention and categorizes them into two categories: external and internal factors. While external factors are independent of the employer, training is recognized as one of the ways to retain employees for a more extended period, which implies that training is beneficial to both the employee and the company. For the same reason, untrained employees are likelier to leave their jobs and find another company. Therefore, the researcher wondered why organizations do not invest in training. Cloutier et al. (2015) advise employers to focus on long-term investments in training that are formal, job-related and accessible to all employees. Such investments increase employee loyalty and productivity, reduce turnover and provide companies with a higher competitive advantage and a more substantial financial base.

2.3. Additional Professional Training

In today's market that is changing quickly, the workforce needs to be more innovative, flexible, and competitive, and this can only be achieved by further professional education in enterprises (Onstenk & Duvekot, 2017). All learning activities that follow initial education and result in the development of new competencies or the enhancement of current ones are referred to as further professional education (Eurostat, 2020). Literature highlights the significance of continuing professional education, demonstrating how it is essential for employee retention and business expansion (Georgellis & Lange, 2007).

3. Methods

3.1. Aim

This paper aims to conduct a comparative analysis of selected indicators related to continuing vocational training in enterprises between the years 2005 and 2020 in the Czech Republic and Hungary.

3.2. Data Source

Secondary data, which will be obtained from the Eurostat database, specifically from the Continuing Vocational Training in Enterprises database, will be analysed and compared in a time context for the survey. CVT is an annual survey collecting data on the use of ICT, Internet, e-business and e-commerce in enterprises. The study focuses on the Czech Republic and Hungary. The period chosen was 2005 to 2020.

3.3. Statistical analysis

Descriptive statistics were carried out for relevant indicators for which comparisons were made between Czech Republic and Hungary over several years. This comparison serves to identify the development of individual indicators and simultaneously compare the level of both states with each other. Secondary data were obtained from the Eurostat database.

4. Results and Discussion

4.1. Participants in CVT courses by company category – a percentage of persons employed in all enterprises

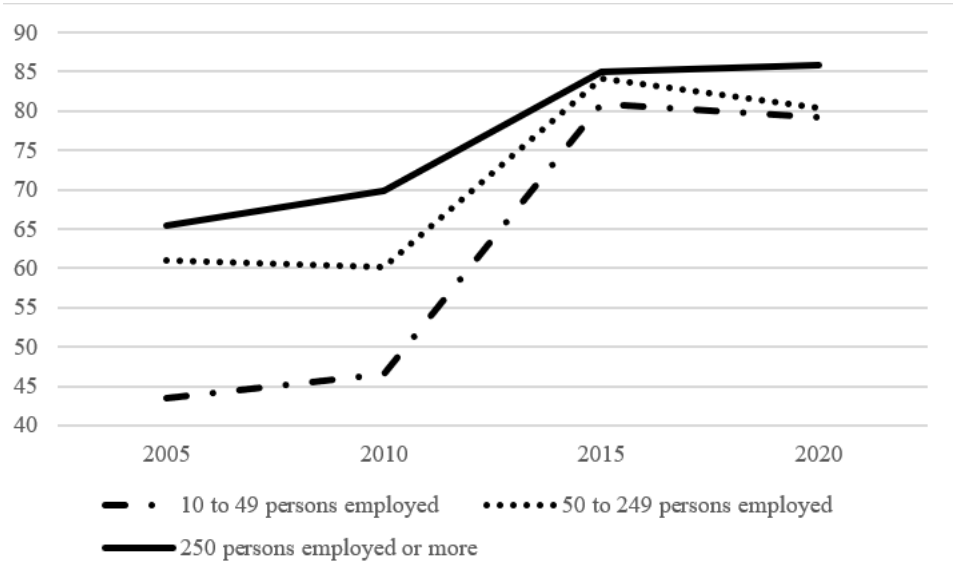
The following table, Table 1, presents the percentage of participants in Continuing Vocational Training courses by company category between 2005 and 2020. It can be observed that in small enterprises (10-49 employees) in the Czech Republic, the share of employees who are receiving additional education increased rapidly in 2020 compared to 2005. In medium-sized (50-249 employees) and large (250 or more employees) enterprises, it has also recorded growth, but not so rapid. In 2020, there was a minimal decrease in small and medium-sized enterprises, which could be caused by the Covid epidemic.

TABLE 1. PARTICIPANTS IN CVT COURSES COMPANY CATEGORY - % OF PERSONS EMPLOYED IN ALL ENTERPRISES – CZECH REPUBLIC

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	43.5	46.5	80.9	79.2
Medium-sized (50 – 249)	61	60.1	84.1	80.4
Large (250 or more employees)	65.5	69.8	84.9	85.9

Source: Own compilation, based on Eurostat (2023)

FIGURE 1. PARTICIPANTS IN CVT COURSES BY SIZE COMPANY CATEGORY - % OF PERSONS EMPLOYED IN ALL ENTERPRISES – CZECH REPUBLIC



Source: Own compilation, based on Eurostat (2023)

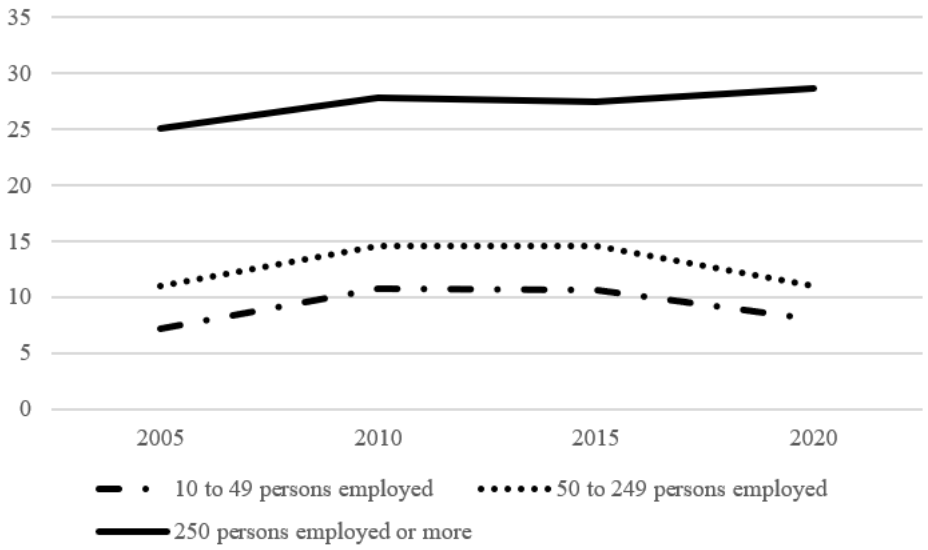
Table 2 shows the values for Hungary. These values are very different from the Czech Republic, they are significantly lower. The difference between the individual surveys between 2005 and 2020 is not so obvious, these are minor changes that do not have a growth trend, but somewhat fluctuating. Just like in the Czech Republic, in Hungary in 2020, there is a visible decrease in values, which we can also assume was caused by Covid, the limitation of face-to-face contact and higher illness.

TABLE 2. PARTICIPANTS IN CVT COURSES BY COMPANY CATEGORY - % OF PERSONS EMPLOYED IN ALL ENTERPRISES - HUNGARY

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	7.2	10.8	10.6	8
Medium-sized (50 – 249)	11	14.6	14.6	11
Large (250 or more employees)	25	27.8	27.4	28.6

Source: Own compilation, based on Eurostat (2023)

FIGURE 2. PARTICIPANTS IN CVT COURSES BY COMPANY CATEGORY - % OF PERSONS EMPLOYED IN ALL ENTERPRISES - HUNGARY



Source: Own compilation, based on Eurostat (2023)

4.2. Hours spent in CVT courses by company category - hours per 1000 hours worked in all enterprises

Data at Eurostat shows number of hours (per 1000 hours worked) spent in Continuing Vocational Training. The data shows a noticeable difference between the Czech Republic and Hungary. In the Czech Republic, they devote more time to employee training. For both countries, not an increasing or a decreasing trend is visible in the data, the data fluctuates up and down over time. In the Czech Republic, there was a decrease for all companies in 2010, an increase in 2015 and then a decrease again in 2020.

TABLE 3. HOURS SPENT IN CVT COURSES BY COMPANY CATEGORY - HOURS PER 1000 HOURS WORKED IN ALL ENTERPRISES – CZECH REPUBLIC

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	4.6	3.3	5	4.2
Medium-sized (50 – 249)	7.4	4.7	6.7	4.7
Large (250 or more employees)	10.5	6.6	8	6.3

Source: Own compilation, based on Eurostat (2023)

On the other hand, in Hungary, the decline in 2020 was milder, for small enterprises employee training even increased rapidly, for medium-sized enterprises it remained at the same value.

TABLE 3. HOURS SPENT IN CVT COURSES BY COMPANY CATEGORY - HOURS PER 1000 HOURS WORKED IN ALL ENTERPRISES - HUNGARY

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	1.5	1.2	1.1	3.3
Medium-sized (50 – 249)	2.1	1.9	1.4	1.4
Large (250 or more employees)	5.7	6.2	5	4.8

Source: Own compilation, based on Eurostat (2023)

4.3. Main skills targeted by CVT courses by type of skill and company category – a percentage of enterprises providing CVT courses

- General IT skills

Table 4 shows that Hungary trains IT skills much more than the Czech Republic. Given the geographical development of the population, both countries are very similar, so it is unlikely that Hungary would train more due to a higher age group of employees than the Czech Republic. This would mean that Hungary is generally worse off in IT skills if it is necessary to educate employees in companies so much more than in the Czech Republic. General IT skills is for example using a computer, word processing, electronic diary, simple spreadsheets or the internet.

In general, the Eurostat survey asked companies what areas they would most like to focus on in employee training. Main skills needed for the development of the enterprises by type of skill were: General IT skills, Professional IT skills, Management skills, Team working skills, Customer handling skills, Problem solving skills, Office Administration skills, Foreign

language skills, Technical, practical or job-specific skills, Oral or written communication skills, Numeracy and/or literacy skills, Other skills and competencies.

TABLE 4. GENERAL IT SKILLS - % OF ENTERPRISES PROVIDING CVT COURSES TARGETED TO GENERAL IT SKILLS IN 2020

Company category (by number of persons employed)	Czech Republic	Hungary
Small (10 – 49)	3.2	17.5
Medium-sized (50 – 249)	8.3	14.3
Large (250 or more employees)	16.1	22.1

Source: Own compilation, based on Eurostat (2023)

- Professional IT skills

In the area of professional IT skills (specialist knowledge or understanding such as producing web pages and writing complex programs), Hungary trains more than the Czech Republic. Interestingly, in the Czech Republic, there has been an increase in training compared to non-professional IT skills in only one category, at the same time Hungary has demonstrably grown in all three categories. Results are shown in Table 5.

TABLE 5. PROFESSIONAL IT SKILLS - % OF ENTERPRISES PROVIDING CVT COURSES TARGETED TO PROFESSIONAL IT SKILLS IN 2020

Company category (by number of persons employed)	Czech Republic	Hungary
Small (10 – 49)	4.1	19.9
Medium-sized (50 – 249)	7.1	22.1
Large (250 or more employees)	11.5	26.9

Source: Own compilation, based on Eurostat (2023)

- Management skills

As shown in Table 6, the situation is no different with management skills (leading and managing staff, planning the activities of others). Hungary again trains significantly more, according to the numbers. However, this difference is proportionally smaller than with IT skills. This means that the Czech Republic places more emphasis on education on management than on IT skills.

The reason could be that people working in management often need to be computer literate hence more emphasis is placed on their training.

TABLE 6. MANAGEMENT SKILLS - % OF ENTERPRISES PROVIDING CVT COURSES TARGETED TO MANAGEMENT SKILLS IN 2020

Company category (by number of persons employed)	Czech Republic	Hungary
Small (10 – 49)	4.5	12.1
Medium-sized (50 – 249)	12.9	19.8
Large (250 or more employees)	27.5	43.3

Source: Own compilation, based on Eurostat (2023)

4.4. Enterprises providing training by type of training and company category – a percentage of all enterprises

As the last indicator, the authors chose Enterprises providing employee training - CVT courses according to the size of the enterprise. In the case of small enterprises, the difference between the Czech Republic and Hungary is apparent at first glance. While the Czech Republic ranges from 56 to 87 %, Hungary is on the borderline at only 19 to 32 %. The situation is similar for medium-sized enterprises, where again more enterprises are involved in training in the Czech Republic than in Hungary. Large enterprises are already at a equivalent level. There may be several reasons for this finding. For example, the Czech Republic SMEs could be more aware that employee training is the key to the competitiveness of the enterprise in the market, that it is the key to increasing employee satisfaction and also to improving production efficiency. Simultaneously, it is necessary to consider government help or cultural patterns. The findings for previous years are shown in Table 7 and Table 8.

TABLE 7. ENTERPRISES PROVIDING TRAINING – CVT COURSES - % OF ENTERPRISES – CZECH REPUBLIC

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	56.2	57.2	87.6	82.3
Medium-sized (50 – 249)	87.9	82.3	94.8	91.9
Large (250 or more employees)	99.8	95.6	99.3	98.3

Source: Own compilation, based on Eurostat (2023)

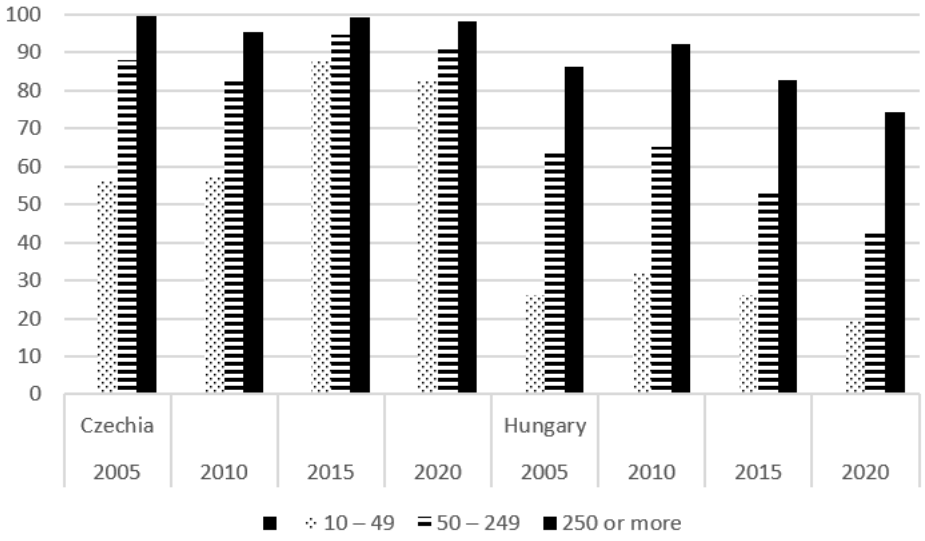
TABLE 8. ENTERPRISES PROVIDING TRAINING – CVT COURSES - % OF ENTERPRISES - HUNGARY

Company category (by number of persons employed)	2005	2010	2015	2020
Small (10 – 49)	26.3	32.2	26.2	19.1
Medium-sized (50 – 249)	64.5	65.1	53.4	43.0
Large (250 or more employees)	86.2	92.4	82.7	74.3

Source: Own compilation, based on Eurostat (2023)

Figure 3 shows a graphical comparison of the two countries and the difference in values for SMEs.

FIGURE 3. ENTERPRISES PROVIDING TRAINING – CVT COURSES – CZECH REPUBLIC AND HUNGARY



Source: Own compilation, based on Eurostat (2023)

5. Limitations

It is also necessary to mention the limitations of this descriptive study. Outcomes are measured once every five years, which is a long period with no known fluctuations between them. Simultaneously, the reasons why the resulting data are different between the countries studied may vary.

In general, the Eurostat survey asked companies what areas they would most like to focus on in employee training. The three most mentioned categories were General IT Skills, Professional IT Skills and Management Skills. This does not mean that all countries voted this way. It is possible that Hungary, for example, would have different top three areas.

The next limitation of this article is the measurement of data, which the article refers to. The measurement is based solely on the self-declarations of representatives of the individual companies and is not measured based on actual control.

6. Discussion

The presented results in this article form a general overview from publicly available data and open great possibilities for subsequent research concerning this topic. In future research, it will be necessary to consider the fluctuation of the level of lifelong learning. This can be different in countries that future authors decide to compare. Another interesting future research could pay more attention to transformations that are forcing changes in the world. These also affect the education of employees and their skills in selected professional groups. Specifically, this includes, for example, the V4's shift away from coal, the war between Ukraine and Russia, the import of energy resources from Russia, and so on.

7. Conclusion

This study presented a comparative analysis of selected indicators related to Continuing Vocational Training (CVT) in enterprises in the Czech Republic and Hungary from 2005 to 2020. The primary findings reveal significant differences between the two countries regarding employee participation in CVT courses, the number of hours dedicated to these courses, and the type of targeted skills. Particularly noteworthy is the significantly higher emphasis on IT skills in Hungary compared to the Czech Republic.

This study provides valuable insights into the effectiveness and focus of CVT programs in both countries, which has significant implications for policymakers, educational institutions, and businesses. The results suggest substantial cultural and structural differences in CVT between the Czech Republic and Hungary, which could affect the overall effectiveness and focus of educational programs.

For future research, it is essential to focus on a deeper analysis of the causes of these differences and their impact on the competitiveness and innovation capacity of enterprises in both countries. It would also be beneficial to examine how the COVID-19 pandemic has influenced approaches to CVT and how trends in corporate education are changing in the following years. Particularly relevant would be to explore how enterprises are adapting to the growing needs of digital transformation and what impact this adaptation has on developingkabou employee skills.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

Corresponding Author

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp60-73

GILE Journal of Skills Development

The Results of a Virtual Exchange (VE) Project Carried Out by Universities from Three Different Countries – Benefits of Collaborative Initiatives on Cultural Sensitivity Involving International Students at Universities

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Abstract

The VE project was implemented with the cooperation of three universities: Budapest Business University, University of Applied Sciences, Hungary; University of Sfax, Tunisia; and Izmir Democracy University, Turkey, in 2023. The main objective of the Virtual Exchange project was to provide students with opportunities for intercultural and interactional development through the performance of collaborative intercultural tasks. The further aim of the project was to provide students with international intercultural experience and to foster mutual understanding, global education, and digital literacy. We focused significantly on creating joint activities that encouraged international students to communicate in ways that enabled them to grasp knowledge beyond what they could merely acquire from websites or books. Both a preliminary survey and a follow-up survey were conducted among the students involved from the three universities, exploring their initial expectations and cultural perspectives before and after the project. The present study summarises the details and the experiences of the implementation of the Virtual Exchange Project, while another paper presents the results of the questionnaires in more detail.

Keywords/key phrases: virtual exchange, intercultural cooperation, developing soft skills, international projects

1. Introduction

Internationalisation is an essential aspect of higher education in today's globalised world. Universities everywhere are increasingly focusing on providing opportunities for students to interact with peers from different countries. One way to achieve this is through common projects that involve international students. This article explores the benefits of having common projects with international students at universities.

Working with individuals from diverse cultural backgrounds in international teams can offer uncountable benefits. International teams often possess a wider range of skills and expertise due to the diverse backgrounds of their members. This diversity allows for a more comprehensive skill set within the team, enabling them to tackle complex challenges from various angles. Working with people from different linguistic and cultural backgrounds enhances communication skills. Furthermore, collaborating with individuals or providing peer-to-peer mentoring from different cultures encourages mutual understanding, cultural sensitivity, and the development of soft skills, which are just a few examples.

These benefits can lead to gains in the workforce. In his study, Schulz (2008) encourages educators to invest more in emphasising the importance of developing the soft skills of their students. Seetha (2013) also points out that employers are more likely to hire and support individuals who are resourceful, able to work well independently, and have soft skills. According to LinkedIn's Global Talent Trends 2019 report, 92% of professionals think soft skills are as important as or even more important than hard skills. Moreover, 85% of workplace success is attributed to having strong soft skills, while only 15% is due to hard skills (National Soft Skills Association, 2015).

While hard skills refer to specific, teachable abilities or technical expertise that can be quantified and measured, soft skills encompass a wide range of attributes such as communication, teamwork, adaptability, problem-solving, leadership, emotional intelligence, time management, and conflict resolution. Laker and Powell (2011) studied the differences between the development of soft and hard skills, with reference to the extent of knowledge transfer. Several international studies focus on the labour market situation of young people (Cook et al., 2015; Kluve et al., 2016; Balan, 2017; Furlong et al., 2017) regarding soft skills. Multiple surveys (DuBois et al., 2011; Brady, 2015; Dong & Deng, 2016) have shown that employees stay at least 25 % longer at a company that uses mentoring than where they do not have mentors. Mentoring has a positive effect on the desire to apply and helps to retain young people in the long run. It was also confirmed that mentored graduates are enthusiastic about the new challenges, respecting those who sacrifice their knowledge, time, and energy for their support.

Soft skills predict success in life, so programs that enhance soft skills are important (Heckman et al., 2012). Higher education institutions are placing increasing emphasis on imparting adequate knowledge about Cultural Intelligence, as more and more students are willing and eager to study abroad globally. The number of Hungarians studying abroad exceeded 16,000 in 2021/22, while in 2016/17 the number was just over 13,000, according to Szabó (2022). According to hvg.hu, the six most popular countries for Hungarian students are the Netherlands, Austria, Germany, Denmark, the UK, and the US, although Brexit has profoundly reshaped the international higher education market, with the number of undergraduate students in British universities falling by 71% since the 2020/2021 academic year.

Cultural intelligence is an indispensable competence that provides the key to an individual's ability to communicate and successfully understand the international arena. Based on the research by Gooden, Creque, and Chin-Loy (2017), Cultural Intelligence encompasses a toolbox of skills that are essential for effective interactions between individuals from different cultural backgrounds.

The concept of cultural intelligence is based on the idea that acting intelligently in diverse cultures may require more than general intelligence and its subfactors (Ang et al., 2020).

Cultural Intelligence, often referred to as the "Bennett Scale"(2019), provides the typical manners in which individuals encounter, interpret, and engage with cultural distinctions. The Bennett model outlines a developmental spectrum where individuals can advance towards a more profound comprehension and acknowledgement of cultural diversity, along with greater adaptability and effectiveness in intercultural interactions.

The main goal of this research was to see how much university students' cultural awareness and sensitivity could evolve when they collaborate on project-based tasks with peers from other countries in a virtual, international setting over a semester. In their study, Brandy and Brown Perkl (2016) showcased how mentoring can serve as a powerful tool for enhancing cultural intelligence. This explains why the author considered peer-to-peer learning, in the form of cooperative learning, to be important and effective. Kram and Higgins (2008) suggested in their research that formal networking programs are not as effective as informal networks; this concept also supports the idea of using self-directed learning in the classroom.

Cultural intelligence refers to the students' capability to function effectively across various cultural contexts. As it involves cultural norms, adapting behaviours, and effectively interacting with people from diverse cultural backgrounds, the author aimed to evaluate students' cultural awareness and soft skills when they began the project across all three participating countries. Additionally, we wanted to emphasise the significance of engaging in international projects in enhancing students' cultural awareness. The present paper focuses on showcasing the step-by-step implementation of the international VE project, while another article will look at the results of measuring cultural intelligence.

2. What is a Virtual Exchange Program?

A Virtual Exchange program uses technology to allow geographically separated people to interact and communicate. Our VE project was carried out with the cooperation of Budapest Business University, the University of Applied Sciences, Hungary; the University of Sfax, Tunisia; and Izmir Democracy University, Turkey. The project, spanning six weeks, offered students chances for both intercultural and interactive growth by engaging in collaborative tasks that fostered intercultural understanding. Additionally, instructors and group leaders held firm convictions that the project's execution would significantly enhance students' employability skills, encompassing digital proficiency, teamwork, collaboration, language fluency, and communication abilities in a diverse cultural setting. During the VE project, the main concept was that students could develop the following proficiencies. On the one hand, students could enhance and practise their hard skills within the frame of the subject of the course. They would have a better understanding of the language of media and communication with all its compulsory elements, such as writing and reading film reviews, writing offers, creating print adverts and screen adverts, analysing market trends, and setting up a marketing communication strategy. On the other hand, students would have the opportunity in teams to develop their soft skills such as teamwork, time management, active listening, flexibility, leadership skills, planning and organising skills, strategic skills, critical thinking, negotiating skills, and many others.

2.1. Universities involved in the VE Project

There were three universities involved in the project: Budapest Business University, University of Applied Sciences, Hungary; University of Sfax, Tunisia; and Izmir Democracy University,

Turkey. From Hungary, 23 second-year students majoring in Media and Communication Studies participated in the project; from Tunisia, there were 25 third-year students majoring in English Studies, and from Turkey, 25 students (aged between 19 and 22) studying Psychology and Sociology.

2.2. Virtual Exchange Calendar

Building on Gilly Salmon's 5-step model (https://www.gillysalmon.com/five-stage-model.html), O'Dowd & Ware (2009) developed a task-structure model, which was used in the present VE project (https://polipapers.upv.es/index.php/eurocall/article/view/7636/9681). Table 1 summarises the in-class activities, the joint activities, and the technologies used by the students from all three universities throughout the 6-week project.

- Introductory and icebreaker exercises - 2 weeks
- Comparative and analytical exercises - 2 weeks
- Collaboration and joint "creation" - 2 weeks

TABLE 1. VIRTUAL EXCHANGE CALENDAR

Week /Dates	In-class Activities of the three universities	Education software used	Joint Activities	Technologies Used Comments/Notes
Week 1	**Ice-breaking activities** (preparing intro videos for each other) before the first online meeting; ice-breaking activity	Vyond: https://www.vyond.com/ Kahoot: https://kahoot.com/ Padlet: https://padlet.com/ Genially: https://www.genial.ly/en	Ice-breaking activities: https://blog.hubspot.com/marketing/ice-breaker-games https://www.zoomshift.com/blog/icebreaker-games/	Skype/Teams/ Google Meet/FB Messenger/group chat among students
Week 2	**Ice-breaking activities** (preparing intro videos for each other) before the first online meeting; ice-breaking activity	Vyond: https://www.vyond.com/ Kahoot: https://kahoot.com Padlet: https://padlet.com/ Genially: https://www.genial.ly/en	Same as the previous week	Skype/Teams/ Google Meet/FB Messenger/group chat among students
Week 3	**Comparative and analytical exercises**	Piktochart: https://piktochart.com/ Mentimeter: https://www.mentimeter.com/	Group discussions, research, writing, …	Skype/Teams/ Google Meet/ FB Messenger/group chat among students

source: Own compilation

2.3. The main objectives of the VE project

1. To engage students in meaningful discussions on key topics and current issues with international peers;

2. To broaden students' horizons by sharing diverse perspectives on tackling common problems;
3. To experience Peer-to-Peer (P2P) Learning, which involves knowledge sharing, mentoring, and learning from peers, learning from each other. The project participants could seek mutual understanding and shared learning, creating knowledge based on their own experiences.

2.4. Implementation of the project

The VE project took six weeks, starting from 27 February 2023 and lasting until 21 April 2023 (1 week in February, 2 weeks in March, 3 weeks in April).It perfectly fit into the original syllabus of the Media and Communication Studies course as during the project implementation, the international teams (2-3 Hungarian students + 2-3 Tunisian students + 2-3 Turkish students, therefore, approximately 6 to 9 students per group) elaborated media-related sub-projects, such as creating a podcast, vlogs, writing promotional views, reviews, etc. The teams fulfilled written and oral tasks as well, consequently practising those very same skills.

Within the topic outlined in the title of the VE project, the following sub-topics were given to the university students and finally ten out of the suggested 19 topics were chosen by the international groups. Each group had a different topic to deal with. Table 2 shows the 19 sub-topics the 10 international groups were able to choose from:

TABLE 2. 19 POSSIBLE TOPICS FOR THE GROUP-PROJECTS

1	famous sights in your city/world heritage - tourists in your countries
2	everyday life of a university student /house, expenses, courses/, daily routine/differences
3	presenting the university - school/educational differences - learning methods, used apps - studying opportunities for international students, politics-how does it affect a university student's life
4	common points and differences among the 3 countries: regarding music, TV/radio, culture - movies and films (internationally watched) - famous films of the 3 countries
5	labour market/how difficult is it to find jobs in your countries?
6	style/fashion, how it changes, what university students where nowadays, what shops they buy from (second-hand, vintage, CSR)
7	tradition, interview with elderly people - local traditions/customs, religious differences in the 3 countries
8	gastronomy, secret ingredients of traditional foods, cooking shows, eating at home vs eating out, do you have restaurants in your country representing the other 2 countries?
9	public transport, vehicles, pros and cons, difference between city and village
10	university subculture, where university students have fun/entertain themselves
11	challenges of today's youngsters - addiction of university students, online games

12	introduce your own families, every life of a Hungarian family, roles, tasks in the family, challenges/problems they must cope with
13	effects of social media on university students - how social media and smartphones affect students' everyday life - what kind of contents are students watching today?
14	the media representations of each other's countries
15	gender role, equality, ratio between male and female students, stereotypes
16	historical background of the countries, how are the Hungarian-Turkish (Tunisia?) wars taught in history books?
17	national days, famous people of the 3 countries
18	what does it mean being Gen Z for the students?
19	famous sports clubs, famous sportsmen, the most /least well-known sports, people, and movie stars, popular celebrities in your countries -thoughts about other generations (X, Y, boomer)

Source: Own compilation

Prior to starting the project, the instructors/lecturers of the three universities interacted three times, when we introduced ourselves, our universities, and our courses to each other. Furthermore, we exchanged ideas about the content of the project and decided on the theme and length of the project. The instructors communicated via Skype and TEAMS. All the students from the three participating universities underwent thorough preparation for the project prior to its commencement. They were provided with detailed information about the other two universities and the potential project topics. Subsequently, they were tasked with creating a 2–3-minute introductory video about themselves, which was then shared with their project partners. The lecturers of the three universities conducted the orientation on the first class of the semester, where they discussed the following points: how many groups they were going to have, who would be in one group, what was the chosen topic of the group they wanted to work on, what were the deadlines, what was the expected outcome (end-product) of the project, how to do self and peer-evaluation, what were the in-house rules, and how the teacher would assess their work during the semester.

Everything was documented: forms were created for self-and peer evaluation, for writing a group report about the student meetings, and about the in-house rules as well. These documents were shared with all the students.

2.5. Student interaction and collaboration

After the groups were set and created in each country, the students with the same chosen topic introduced themselves to each other, and the groups decided on the platform they would prefer to use for communication. They agreed on timing and shared the tasks with each other. Most of the international groups conducted six meetings throughout the project and prepared a summary of everything they agreed on. The group reports were then uploaded to a common platform and were also sent to their own lecturers, as it was previously stated that all the materials designed, elaborated, and written by the members of the international groups would become part of the assessed materials.

Students could interact in several ways. On the one hand, they had synchronous communication, which occurred in real time either orally or in writing (for instance, videoconferencing or instant messaging chat conversations), and, on the other hand, they had asynchronous communication as well, which occurred on a time-deferred basis either orally or in writing (for instance: discussion forums or email conversations). One of the first challenges that synchronous communication posed to VE participants was finding a date and a time that suited all of them, especially when participants were in different time zones.

The students did their best to keep in touch with their foreign peers continuously throughout the six weeks. Their communication happened at an individual level, e.g.: on Facebook or at an organized group level, e.g. TEAMS calls or meetings. The purpose of each interaction was to get to know each other deeper and to share ideas and knowledge with peers while focusing on elaborating on the given project task.

The four lecturers (1 from Hungary, 1 from Turkey, and 2 from Tunisia) supported the students if there were problems in the flow of the work, if there were personal misunderstandings, or if the group was "lost" and did not know how to continue the project. There was a private Facebook group made for all the participants, including the lecturers as well, where apart from having conversations about issues related to everybody, students usually posted photos taken in class or taken at the university and thus initiated further conversation between the three universities.

3. Assessment and evaluation of the project

The VE project fit well into the original syllabus of the Media and Communication Studies class as the international groups elaborated media-related sub-projects, such as creating podcasts, vlogs, and writing promotional views and reviews. The evaluation of the project work was based on the following criteria:

1. The quality and elaboration on the given/chosen topic;
2. The quality and complexity of the end-product (YouTube channel, podcasts, magazines, vlogs, article, research, secondary study material, etc.), which had to be uploaded to the agreed platform;
3. Written activities (questionnaire for evaluation, article, letter, etc.).
4. Oral activities (telecollaboration, Skype, Zoom, etc., calls, etc.).
5. Participation in group meetings with the students from the two foreign universities (based on the individual tasks in organising group meetings/managing the group meetings-active or passive role), written group report of group meetings (one Hungarian student was assigned to write the report in each group).
6. Self and peer evaluation (based on the questionnaire), self-evaluation (1 page) in writing.
7. **Individual** contribution to the elaboration of the chosen artefact (teamwork, leadership skills, flexibility, conflict-management, time-management, etc.).
8. Keeping a connection with their peers (platform, frequency, participation, plan, dynamics, etc.), written report about it.
9. Written proof of individual work handed to the lecturer at the end of the VE Project.

4. Results

Table 3 summarises the artefacts/end-products of the international groups.

TABLE 3. END-PRODUCTS OF VE GROUPS

GROUP	TOPIC	SUMMARY OF THE END-PRODUCT
1	**8/** Gastronomy, secret ingredients of traditional foods, cooking show, eating at home vs eating out do you have restaurants	The final result is a cooking show where each country showcases the 'national dish' of a different country. Hungary presented the Tunisian national dish, Tunisia prepared the Turkish national dish, and Turkey cooked the Hungarian chicken paprikash. The video can be found on YouTube.
2	**13/** Effects of social media on university students - how social media and smartphones affect students' everyday life - what kind of content are students watching today?	The final outcome is a PowerPoint presentation wherein students highlighted various mental health issues stemming from social media. They conducted a survey and presented their findings within the presentation. In the concluding project meeting on TEAMS, small breakout rooms were utilised to discuss the identified mental health problems.
3	**6/**Style/fashion, how it changes, what university students wear nowadays, what shops they buy from (second-hand, vintage, CSR)	The end-product is a ppt comparing the traditional clothes of the three countries with precise descriptions depicting the similarities and the differences between the national traditional clothes, mainly for women, and discussing the advantages of buying second-hand clothes.
4	**1/**Famous sights in your city/world heritage - tourists in your countries	The end-product is a video where students show the most famous sights of their own cities by giving information about the historical and cultural importance of the places. The video is funny, entertaining, and educating at the same time.
5	**11/**Challenges of today's youngsters - addiction of university students, online games	In-depth interviews were carried out with some volunteer university students from the three countries and at the end the results were discussed at the project-closing final meeting on TEAMS.
6	**17/** National days, famous people of the 3 countries	The final product is a blog where students shared pictures and articles about their national days. They focused mainly on one national day from each country.
7	**4/** Common points and differences among the 3 countries: regarding music, TV/radio, culture - movies and films (internationally watched) - famous films of the 3 countries	The aim of the final product was to mix and combine the traditional songs of the three countries on a common denominator. To do this, the students first chose songs from their own countries and then mixed them in a studio environment. The song is uploaded to YouTube.
8	**5/**Labour market/how difficult is it to find jobs in your countries?	The final product is the following: each nationality conducted an interview where they asked a professional to tell them about their work. They asked a total of 10 questions. Their aim was to get to know a profession

		better. The results were discussed during the final meeting on TEAMS.
9	**2/** Everyday life of a university student /house, expenses, courses/, daily routine/differences	The final product consists of a ppt presentation about the questionnaire results that highlights the differences between the three universities in terms of daily routine, courses, as well as school systems.
10	**9**/Public transport, vehicles, pros and cons, differences between city and village	The final product is a video. The video contains the public transport opportunities of the three countries. Students also created a TikTok account, where they uploaded short videos.

source: own compilation

After having taken part in the Virtual Exchange learning experience, most students are able to:

- Initiate future cooperations with international partners.
- Develop strategies to bridge cultural, social, and geographical gaps between participants.
- Develop valuable skills-sets by promoting self-reflection, empathy, understanding, and acceptance, and intercultural sensitisation.
- Gain insight into a larger slice of the world.
- Develop a broader spectrum and perspective on current world events through the eyes of university students from other nations.
- Develop intercultural awareness, interdisciplinarity, collaborative skills and media competencies, and add soft skills such as project management.
- Develop a high level of self-organisation as all members of the international groups are jointly responsible for their work results.
- Collaborate, cooperate, and communicate effectively in international teams under the supervision of their lecturers.
- Share knowledge and experience in a shared language.

5. Research

The author conducted a survey with the project participants of the three universities. The main task of the survey was to examine the participating students' cultural sensitivity and to examine to what extent their cultural sensitivity could change after working together virtually with students from different cultural backgrounds. Furthermore, the researcher also wanted to see whether there was a correlation between the number of languages spoken or the number of countries visited and cultural openness with reference to Bennett's framework, which describes the different ways in which people can react to cultural differences. Bennett's initial idea was to utilise the model to evaluate intercultural awareness and help improve intercultural sensitivity, which is the ability to accept and adapt to a brand-new and different culture.

The questionnaire focused on five research questions, out of which one research question is discussed and explained in the present paper. The first research question was the following:

Q1: Are university students who speak more languages or who have visited more countries more culturally sensitive? Are there any significant differences in this area between the nations studied?

To answer the research question, the author created a 16-item principal component to measure cultural openness. Table 4 shows cultural openness as a key component. The variance explained by the principal component is 43.833%. which is adequate given the number of items.

TABLE 4. CULTURAL OPENNESS AS A KEY COMPONENT

If something unexpected happens while working in a new culture, I can easily find out the solution. (Rate the extent to which you agree with each statement. using the scale (Cognitive)	0.528
I can change the way I act when a cross-cultural situation seems to require it. (Rate the extent to which you agree with each statement. using the scale (Behavioural)	0.606
I can alter my expression when a cultural situation requires it. (Rate the extent to which you agree with each statement. using the scale (Behavioural)	0.543
I can easily accept cultural differences in greetings, in traditions and other norms. (Rate the extent to which you agree with each statement. using the scale (Behavioural)	0.689
I can handle cultural differences easily. (Rate the extent to which you agree with each statement. using the scale (Behavioural)	0.685
I can adapt to the lifestyle of a different culture easily. (Rate the extent to which you agree with each statement. using the scale (Motivational)	0.700
I am confident that I can deal with a cultural situation that's unfamiliar. (Rate the extent to which you agree with each statement. using the scale (Motivational)	0.606
I am patient and respectful when communicating with someone from a different culture. (Rate the extent to which you agree with each statement. using the scale (Motivational)	0.722
Before settling on a new belief or idea about a different culture, I use questions and observations to see if it is accurate. (Rate the extent to which you agree with each statement. using the scale (Motivational)	0.640
I have prejudice against certain cultures. (Rate the extent to which you agree with each statement. using the scale (Motivational)	-0.514
When working with people from a different culture, I research that culture and try to improve my knowledge about it. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.505
I prefer to work in teams with people from different cultures. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.631
I feel comfortable collaborating with people from very different cultures to me. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.730

I try to learn a few foreign words in the language of any culture I visit. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.763
I feel a natural drive to connect with other cultures. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.814
I am open towards getting to know other cultures. (Rate the extent to which you agree with each statement. using the scale (Cultural)	0.804

source: own table

When looking at the students from all the countries together, the ANOVA test results show no significant difference in cultural openness based on the number of foreign languages spoken (F: 0.731, df: 2, sig.: 0.486 p>0.05). The number of foreign languages spoken is divided into two groups in order to obtain the appropriate number of elements (1 - speaks one foreign language, 2 - speaks several foreign languages) for the analysis of the countries and the analysis of foreign language speakers. When considering all three countries together, the independent samples T-test still shows that there are no significant differences between the groups (t: -1.111, df: 62, sig.: 0.271 p>0.05). T-test results for each country separately are: regarding Turkey (t: -1.244, df: 19, sig.:0.229 p>0.05), Tunisia (t: -0.141, df: 20, sig.: 0.889 p>0.05), and Hungary (t: 0.516, df:19, sig.: 0.612 p>0.05). There is no significant difference between the students in the two groups mentioned above.

For the number of countries visited, the ANOVA test showed no significant difference between the means of the groups (F: 1.012. df: 2. sig.: 0.369 p>0.05). In this case, the extremely uneven distribution of the number of items did not allow a breakdown by country. The analysis also examined whether average cultural openness differs across the three countries. The ANOVA results revealed significant differences in this case (F: 4.901. df: 2. sig.: 0.011 p<0.05) with the highest cultural openness being observed for Tunisian students (mean: 0.459), followed by Turkish students (mean: -0.042), and the lowest mean for Hungarian students (mean: -0.439). It may also be worth looking at whether there is a correlation between the student's origin and the foreign languages spoken and the number of countries visited. In the cross-tabulation analysis it is possible to use the two-category recoded version for both variables, otherwise the expected number of items in several cells will be less than five. Chi-squared tests show a significant and relatively strong correlation with the origin of the students for both languages spoken (Chi-Square: 22.964. df: 2. sig.: <0.001. p<0.05. Cramer's V: 0.599) and countries visited (Chi-Square: 40.234. df: 2. sig.: <0.001. p<0.05. Cramer's V: 0.799). In the case of foreign languages, Turkish students are most likely to speak only one foreign language, followed by Hungarian students, while Tunisian*s* are more likely to speak several foreign languages. Table 5 shows the number of foreign languages spoken and the students' nationalities.

TABLE 5. NUMBER OF FOREIGN LANGUAGES SPOKEN AND STUDENTS' NATIONALITIES

Students' nationality	One foreign language	More than one foreign language	Total
Hungarian	8 38.1%	13 61.9%	21 100%
Tunisian	2 9.1%	20 90.9%	22 100%
Turkish	17 81%	4 19%	21 100%
Total	27 42.2%	37 57.8%	64 100%

source: own compilation

In terms of foreign countries visited, all the Hungarian students had been outside the country, while all but one Tunisian student and 66.7% of Turkish students never visited another country (Table 6).

TABLE 6. FOREIGN TRAVEL AND NATIONALITY

Students' nationality	Never been abroad	Went abroad	Total
Hungarian	0 0%	20 100%	20 100%
Tunisian	21 95.5%	1 4.5%	22 100%
Turkish	14 66.7%	7 33.3%	21 100%
Total	35 55.6%	28 44.4%	63 100%

source: own table

6. Conclusion

The presented Virtual Exchange project offered an exceptional opportunity for international students to engage with their peers from different countries. Active participation in joint projects alongside international peers served as an excellent platform for enriching their cultural comprehension. This involvement exposed students to diverse cultures, customs, and traditions, fostering a broadening of perspectives and a deeper appreciation of diversity. Interacting with international peers facilitated the development of effective cross-cultural communication skills, a valuable asset in our increasingly globalised world.

Despite occasional minor conflicts within the groups, students adeptly resolved arising issues, at times seeking guidance and support from their lecturers. Collaborating on shared projects with international counterparts also bolstered teamwork capabilities, teaching students to function efficiently within diverse team dynamics. This experience honed vital skills like

communication, collaboration, and conflict resolution, all of which are indispensable in today's workplace, often characterised by diverse team structures.

Another advantage of engaging in joint projects, such as the Virtual Exchange project with international students, was the substantial improvement in students' language proficiency. This environment provided a practical context for students to hone their language abilities, inevitably fostering confidence and fluency. Furthermore, students had the opportunity to acquire new vocabulary and idiomatic expressions directly from their international counterparts, enriching their linguistic skills beyond traditional classroom learning.

Involvement in international projects could significantly expand career prospects for students. In today's job market, employers highly regard individuals with exposure to working in diverse global settings. Therefore, students who have engaged in joint projects with international peers can showcase the skills and experience that are essential for thriving in a global workplace. This exposure grants them a competitive advantage when seeking job opportunities.

To sum up, engaging in joint projects with international students at universities yields manifold advantages for students. It fosters enriched cultural understanding, language proficiency, teamwork capabilities, and expands career horizons. It is imperative for universities to sustain opportunities for students to collaborate with peers from diverse backgrounds through joint projects. This invaluable experience plays a pivotal role in equipping students for success in our contemporary globalised society.

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Declaration Statements

Conflict of Interest

The author reports no conflict of interest.

Funding

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

Ethics Statement

No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp74-94

GILE Journal of Skills Development

Cognitive Skills Within the Inner Development Goals (IDG) Framework: Empowering Sustainable Careers and Sustainable Development

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Abstract

Our theoretical manuscript aims to explore the role that dimension two, 'Thinking-Cognitive Skills' of the Inner Development Goals (IDG) framework, can play in empowering sustainable careers and sustainable development. We begin by setting the scene before introducing the theoretical framework, which combines the IDG framework and Sustainable Career Ecosystems Theory (SCET). Our attention then turns to systematically considering each of the components of dimension two of the IDG framework. These include (a) critical thinking, (b) complexity awareness, (c) perspective skills, (d) sense-making, and (e) long-term orientation and visioning. The theoretical contribution comes from integrating the IDG framework and SCET. Practical implications come from offering eight pragmatic recommendations to empower students in the context of higher education to prepare for sustainable careers and sustainable development: (i) curriculum design, (ii) interdisciplinary approach, (iii) experiential learning, (iv) faculty development, (v) assessment and evaluation, (vi) campus culture, (vii) collaboration and external partners, and (viii) research and innovation. Limitations and a future research agenda are also provided.

***Keywords/key phrases*:** cognitive skills, Higher Education, Inner Development Goals (IDG), leadership development, strategic thinking, sustainable career, Sustainable Development Goals (SDG)

1. Introduction

The rapidly evolving, Volatile, Uncertain, Complex, and Ambiguous (VUCA) world necessitates reevaluating the cognitive skills required for future managers (Bennett & Lemoine, 2014). The New Psychological Contract (NPC; Rousseau, 1995) offers a framework for understanding employer-employee relationships and emphasises the importance of career agility and employability in the 'New World of Work'. This agility is essential for navigating the multifaceted realities of modern work environments, and it is increasingly recognised by various professional domains (e.g., Baruch & Rousseau, 2019; Donald, 2023; Gribling & Duberley, 2021). The NPC underlines the psychological aspects of employment, focusing on fairness, trust, and mutual agreement, and its violation can significantly impact job satisfaction, commitment, and performance (Baruch & Rousseau, 2019). It represents a departure from the Old Psychological Contract (Schein, 1978), where an organisation provided an employee job security in exchange for loyalty (i.e. a job for life with the opportunity for progression along a structured career ladder until one reached a plateau or retired). We argue that consciousness is needed for a genuine and responsible shift in higher educational institutions for sustainability to be met in employability, sustainable careers and a sustainable future where awareness of the educators' and students' interior conditions is fostered by sense-making.

Critical thinking and problem-solving are identified as essential higher-order skills crucial for navigating uncertainty, complexity, and change in the 21st century (Sala et al., 2020). Critical thinking involves a self-directed, skilful analysis of information, beliefs, or knowledge, with an awareness of the potential flaws in human reasoning, while problem-solving is the process of identifying solutions to complex issues, often requiring interaction and various tools and resources (OECD, 2018). These skills are closely related to other employability competencies, supporting learning, the ability to handle obstacles, and the curiosity to look for learning opportunities in various contexts (Council of the European Union, 2018).

The European Skills Panorama emphasises the importance of thinking skills and competencies relating to applying mental processes for planning activities, solving problems, and performing complex tasks (European Commission, 2019). The Be21Skilled project highlights the significance of integrating 21st-century skills into curricula, particularly for Science, Technology, Engineering and Mathematics (STEM) fields, to create competent, job-ready graduates and support female students, focusing on collaborative efforts, teacher training, and curriculum innovation (Līce et al., 2023). The approach aligns with findings in the UK by Donald et al. (2019), which found that women undergraduates had lower perceptions of their skills and employability than men – and career advice provided through a university career service was less likely to reach students who needed it the most compared to curriculum-based interventions and support.

Inner development implicates the inner self. Varela et al. (1993) said cognitive learning does not need consciousness. At the same time, the authors acknowledged that we cannot speak about the self without consciousness (p. 51). This is a problem as awareness is essential to acknowledge inner development in the human experience. For Ray Jackendoff (2007), cognition is functional and computational, and it is also phenomenological, for which the inner condition of staff is also relevant and an indicator of the educational system's relationship. Varela et al. (1993) highlight the problem between science and experience, where "cognition consists, on the one hand, of unconscious symbolic computation and, on the other hand, of

conscious experience" (p. 52). McGilchrist (2019, p. 224) explores this split further, pointing out that consciousness about ourselves, beings, and doings corresponds to the left hemisphere inspecting the right; at the same time, the right hemisphere is where we pay attention; in doing so, we are less conscious of the process. At this point, the argument is how educators can apply both a more integrative approach and the role of higher education culture in genuinely adapting the skills for sustainability to be met.

Universities play a critical role in preparing students for sustainable careers by understanding the NPC and integrating employability, career counselling, and coaching into their curricula (Donald, 2020; Jakubik, 2019, 2020; Shtaltovna & Muzzu, 2021a). They are positioned as a transitional community, guiding students from academia to the professional world and incorporating scientific research, technology, and industry experiences into digital and cognitive skills learning (Jakubik et al., 2023; Shtaltovna & Muzzu, 2021b). Developing digital collaboration, social skills, critical thinking, systemic thinking, and contemporary frameworks like Agile, Blue Ocean Strategy©, and CYNEFIN© is emphasised for producing career-ready graduates.

For cognitive skills development, focusing on social skills, communication, integrity, intercultural competence, and resilience (Donald et al., 2019; 2024; Nimmi et al., 2021, 2022) is paramount across all areas of higher education. Universities must foster these skills to ensure graduates are well-equipped to manage the complexities and dynamic challenges of future managerial roles. Partnerships with companies for internships and work-based learning opportunities further enhance this preparedness, offering students real-world experiences and insights into corporate culture and employability sustainability (Donald & Mouratidou, 2022; Jackson & Cook. 2023; Van der Heijden et al., 2015, 2020; Ybema et al., 2020). Consequently, the significance of cognitive skills extends into the realm of sustainability, where understanding and addressing the intricate web of social, environmental, and economic challenges require a deep and nuanced comprehension of complex systems (Wamsler et al., 2020, 2021; Wiek et al., 2011). Leaders and educators with advanced cognitive skills can foster sustainability by effectively negotiating and activating climate action and supporting peaceful, just, and inclusive societies (Wamsler & Restoy, 2020).

Therefore, cognitive skills development is an intricate and essential domain, underpinning a wide array of activities and disciplines ranging from higher education and teaching to responsible leadership and personal growth. In business schools within higher education, developing these skills is paramount, as it prepares students not just for academic success but for their roles as informed and responsible members of society and responsible, sustainable and ethical businesses (Jakubik, 2019, 2020; Jakubik et al., 2023). For 21st-century leaders, well-trained cognitive skills are indispensable for decision-making, strategy formulation, and driving sustainable practices.

The Inner Development Goals (IDG) initiative, endorsed by educational institutions such as the Karolinska Institute, Stockholm School of Economics, and Lund University Centre for Sustainability Studies, significantly aligns with the United Nations Sustainable Development Goal (SDG) 4 – '*Quality Education*' (United Nations, 2015). SDG4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. It recognises the power of education in eradicating poverty, boosting economic growth, and creating a sustainable global society. By focusing on developing crucial skills, inner qualities, and

capabilities, the IDG initiative directly contributes to achieving SDG4's targets. It emphasises the importance of quality education, imparting knowledge and cultivating critical thinking, problem-solving, and the personal and social capabilities required to navigate and lead in a complex world. The support and insights from thought leaders like Kegan, Cook-Greuter, Senge, Scharmer, Edmondson, Garvey Berger, Einhorn, Osika, Stenström, Richter, Wamsler, and Lindencrona further underscore the initiative's commitment to fostering a more educated, skilful, and conscious society. Through this alignment with SDG4, the IDG project endeavours to enhance educational outcomes, foster lifelong learning, and ultimately contribute to the broader goals of sustainable development.

Therefore, our theoretical manuscript aims to explore the role that dimension two, 'Thinking-Cognitive Skills' of the IDG framework, can play in empowering sustainable careers and sustainable development. The manuscript is structured as follows. Section 2 sets out the theoretical framework, combining the IDG framework and Sustainable Career Ecosystem Theory (SCET). Section 3 systematically considers each component of dimension two of the IDG framework. These include (a) critical thinking, (b) complexity awareness, (c) perspective skills, (d) sense-making, and (e) long-term orientation and visioning. However, it is important to acknowledge that this focus is part of a larger structure, and additional reviews should be undertaken to comprehensively address the other four dimensions of the IDG framework, ensuring a well-rounded understanding of the interdependent spectrum of skills and competencies it embodies. Section 4 outlines the implications that come from offering eight pragmatic recommendations to empower students in the context of higher education to prepare for sustainable careers and sustainable development: (i) curriculum design, (ii) interdisciplinary approach, (iii) experiential learning, (iv) faculty development, (v) assessment and evaluation, (vi) campus culture, (vii) collaboration and external partners, and (viii) research and innovation. Section 5 presents the limitations and a future research agenda before Section 6 concludes the manuscript.

2. Theoretical Framework

In the context of the rapidly changing, so-called 'VUCA', 21st-century workplaces, developing cognitive skills for future managers is increasingly recognised as crucial. Donald and Jackson (2023) underscore the importance of understanding the NPC to foster sustainable career ecosystems. This concept emphasises career agility as a psychological necessity (Baruch & Rousseau, 2019; Coetzee et al., 2022; Donald, 2023; Donald & Jackson, 2023). Furthermore, the literature suggests that universities play a critical role in preparing students for these challenges. In response, Jakubik et al. (2023) offer a novel framework for enhancing students' capabilities for work and life, focusing on academic and operational competencies for students, particularly in business schools, suggesting a redefined role for universities in a complex and evolving world.

The evolution of learning within Higher Education Institutions (HEIs) is discussed by Grabarski et al. (2023), suggesting innovative methods such as flipped learning to bridge theory and practice for fostering critical and systemic thinking, and other cognitive skills necessary for sustainable careers (Creed, 2023). Additionally, Baruch et al. (2023) frame this discussion within the broader context of talent flow and acquisition at the interface of higher education and industry. They emphasise the importance of HEIs producing employable graduates equipped with the necessary cognitive skills to navigate the VUCA world and contribute to

organisational sustainability (for additional reading on this topic, please refer to William Donald's (2024) book, '*Strategic Opportunities for Bridging the University-Employer Divide*') for the contemporary discourse.

Finally, Donald et al. (2023) provide empirical insights into the future of work and the role of universities in preparing graduates for sustainable careers. Their research identifies key themes such as skill development, motivation, career ownership, and well-being, which are intrinsically linked to cognitive skills development. These studies highlight the necessity of a multifaceted, interdisciplinary approach to cognitive skills development in higher education, reflecting the complex, interconnected nature of the modern workplace and the diverse needs of future managers.

The theoretical underpinnings of cognitive skills development are diverse and intricate, drawing from various psychological and sociocultural perspectives. Central to this discourse is the notion that cognitive development is not just about acquiring more knowledge or better skills but involves a fundamental evolution of the self and its capacity to perceive, understand, and interact with the world. Ibrahim and Alkire's (2007) comprehensive list of definitions of empowerment includes how empowerment is insufficient unless it includes "people's abilities to act, the institutional structure, and the various non-institutional changes that are instrumental to increased agency" (p. 384). Empowerment, when conscious, is an embodied human development experience critical for social ecosystemic sustainable futures.

A cultural shift in HEIs towards an inclusive place of knowledge within the *Thinking* — a fundamental cognitive skill dimension within IDG — sustains the move from ego to ecosystem. Jane Loevinger's theory of ego development offers a foundational perspective on the progression of cognitive skills. Loevinger (1976) describes stages of ego development as the evolution from an impulsive, self-centred view to a capacity for deep understanding and inclusivity, which mirrors the development of critical cognitive skills.

Building on this, Robert Kegan (1994) presents a model of adult development, articulating successive orders of consciousness. Each stage represents a more complex organisation of experience, leading to the ability to comprehend and navigate multiple, often conflicting, systems of meaning. Susanne Cook-Greuter (1999, 2013) extends these ideas into post-autonomous ego development, describing advanced stages where individuals achieve greater self-awareness and a profound connection with the collective, indicative of the highest levels of cognitive skills development.

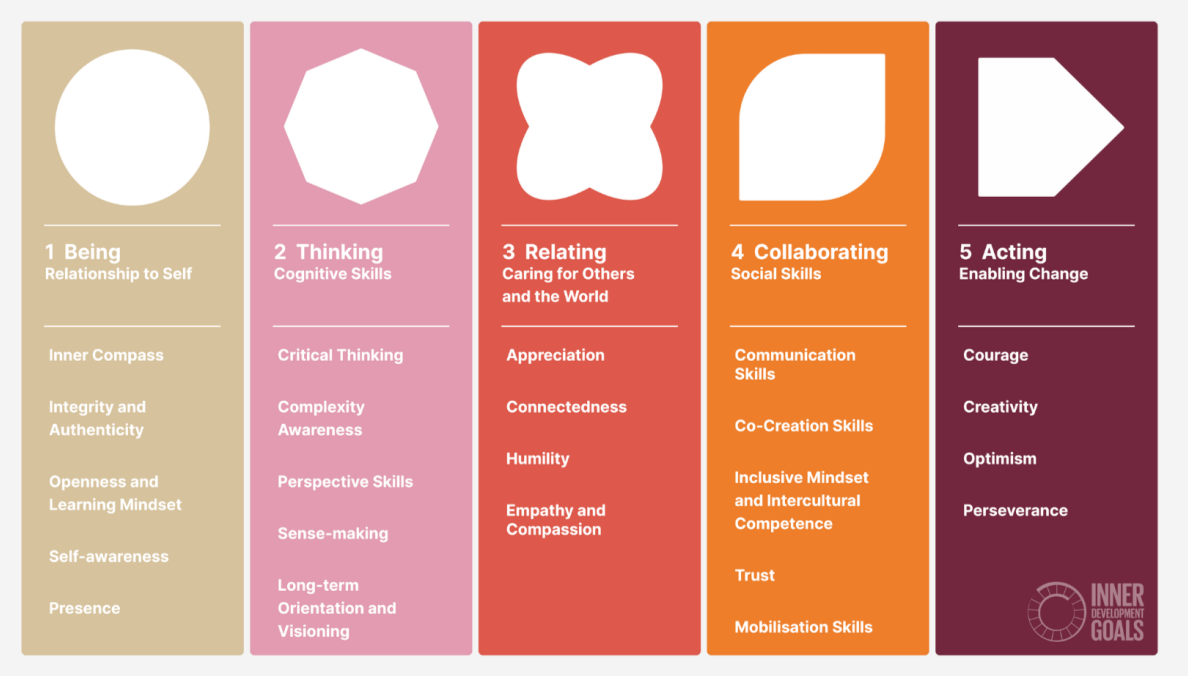
Adding a cultural perspective, Geert Hofstede's cultural dimensions theory (Hofstede et al., 2005) delineates how cultural norms and values, such as individualism versus collectivism and uncertainty avoidance, shape individual thinking, problem-solving, and perception. Similarly, Lev Vygotsky's (1978) sociocultural theory highlights the role of social interaction and cultural tools in cognitive development. Vygotsky suggests that higher-order functions initially develop through social interaction and are mediated by cultural tools, emphasising the collective and collaborative nature of cognitive skills development.

The latest research on IDGs reflects a diverse range of perspectives and methodologies in understanding and promoting inner growth and its impact on societal and environmental challenges. Wandel et al. (2022) explore how IDGs relate to leadership development in civil society organisations in developing countries, highlighting the intersection of personal growth

and organisational leadership. Ankrah et al. (2023) delve into the transformational potential of IDGs, discussing the journey from inner growth to tangible external change. Kemp and Edwards (2022) provide a foundational overview of well-being, linking it to societal challenges and potential solutions, thereby setting a broad context for IDGs. Rodriguez Carreon (2023) emphasises the concept of liminality in personal development, suggesting that change begins within the individual. Costa (2023) creatively applies IDGs in an educational setting, using them to teach research methodology to sociology students, thereby demonstrating the practical applications of IDGs in academia. Finally, Cooper and Gibson (2022) propose a novel framework for assessing sustainability that integrates both inner and outer dimensions, underlining the importance of a holistic approach to sustainability.

The IDG framework (Figure 1) is designed to address various aspects of human growth and development.

FIGURE 1. THE INNER DEVELOPMENT GOALS FRAMEWORK



Source: https://www.innerdevelopmentgoals.org/framework

It encompasses a wide array of skills and competencies, structured into distinct but interrelated columns, each representing a core area of focus. The IDG framework aligns with the holistic and integrative views of human development proposed by theorists like Kegan (1994) and Loevinger (1976), who emphasise the evolving nature of the self and its capacities. It also resonates with the dialectical and systems thinking proposed by Basseches (1984) and brings the consciousness of experience by Bohm (1980). In essence, the IDG framework serves as a foundational tool for educators, leaders, and individuals committed to fostering a more sustainable, responsible, and well-informed world. Consequently, integrating the IDG framework and SCET represents our theoretical framework to accelerate the SDG.

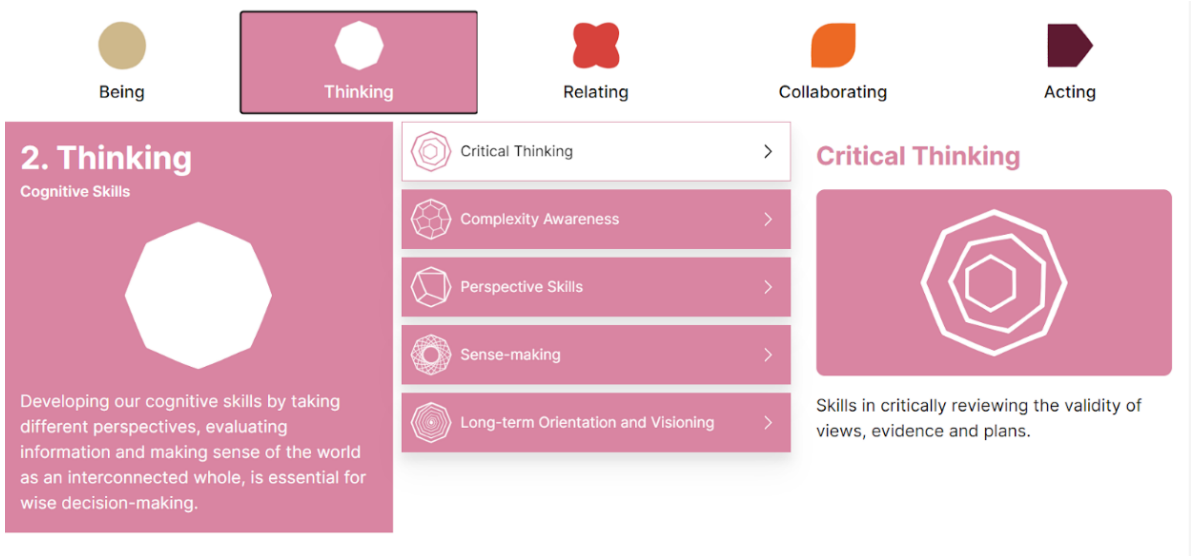
3. Dimension Two 'Thinking Cognitive Skills'

While the IDG framework holistically considers a range of developmental facets, in this specific manuscript, we focus only on the second column: '*Thinking - Cognitive Skills*' (Figure 2). It

encompasses '*Critical Thinking*', '*Complexity Awareness*', '*Perspective Skills*', '*Sense-making*', and '*Long-term Orientation and Visioning*' processes essential for personal and professional development. The Inner Development Goals Framework communicates the dimensions highlighting and recognising the complex interdependence between the five, thus calling for arbitrary and fluid categorisation.

The pedagogical intent behind the IDG framework is to serve as a versatile and comprehensive tool for exploring and enhancing these essential cognitive skills. The framework acknowledges the layered and interconnected nature of cognitive abilities and aims to facilitate their development through targeted pedagogical strategies (Andersson, 2015). It encourages an open-ended exploration, inviting educators and learners to engage with, adapt, and expand upon it, thus fostering a lifelong learning journey.

FIGURE 2. THINKING – COGNITIVE SKILLS OF THE INNER DEVELOPMENT GOALS



Source: https://idg.tools/framework

We now systematically explore each of the five components of dimension two of the IDG.

3.1. Critical Thinking

Critical thinking is a cornerstone cognitive skill encompassing a wide range of mental processes to analyse information and make reasoned judgments. It is fundamentally about having an open mind to think clearly and rationally, understanding existing and creating new logical connections between ideas, suspending judgment and cynicism, critically reviewing the validity of views, evidence and plans, and systematically solving problems.

King and Kitchener's (1994) work on reflective judgment is vital to understanding the development of critical thinking. They propose a model of seven stages, detailing how individuals progress from a reliance on external authorities for truth to an ability to synthesise evidence and reconcile conflicting information. Their model underscores that critical thinking involves analysing, evaluating, and recognising knowledge's uncertainty and contextual nature.

Theo Dawson's (2004) research dives deeper into the components of critical thinking, identifying the micro-skills involved. These include recognising assumptions, evaluating arguments, making inferences, and explaining reasoning. Dawson's work highlights that critical

thinking is not a monolithic skill but a collection of interrelated capabilities that can be developed and refined.

Daniel Kahneman's (2011) seminal work on System 1 and System 2 thinking in his book '*Thinking, Fast and Slow*' provides a foundational understanding of the cognitive processes underlying critical thinking. System 1 is fast, intuitive, and emotional, while System 2 is slower, more deliberative, and more logical. Critical thinking largely involves engaging System 2 to check and supervise the automatic assumptions and impressions generated by System 1. Understanding these two systems' interactions is crucial for developing effective critical thinking skills.

Known for his 2018 book '*Factfulness: Ten Reasons We're Wrong About The World – And Why Things Are Better Than You Think*', Hans Rosling demonstrates how our preconceived notions and biases distort our understanding of the world. From Rosling's perspective, critical thinking involves questioning our assumptions and using data and evidence to form a more accurate view of reality.

Universities serve as critical arenas for developing critical thinking, promoting intellectual growth and reflective judgment through a rich curriculum and interdisciplinary engagement. They foster an environment conducive to rigorous debate and scrutinising ideas, guided by faculty who encourage students to challenge assumptions and biases. This academic framework, emphasising analysis, evaluation, and synthesis, prepares students for informed decision-making, equipping them to navigate the complexities of contemporary life with enhanced critical thinking skills.

3.2. Complexity Awareness

Complexity awareness is a critical cognitive skill, particularly in the modern world, where business and ethical issues are often intertwined in a complex web of causes and effects. This skill involves recognising, understanding, and navigating complex systems' intricate and often unpredictable interactions and interdependencies, co-sensing, zooming in and out for a trained systemic view, feeling one's contribution in the system, turning the lens back on oneself. Understanding the underlying structures and dynamics that drive observable phenomena is about seeing beyond the superficial, working with complex and systemic conditions and causalities.

Russell Ackoff, a pioneer in systems thinking, emphasised the importance of understanding the whole system rather than just its parts (Ackoff, 1979). He argued that in complex systems, the properties and behaviours of the whole might differ entirely from those of its parts. This insight is crucial for managers who need to consider the broader organisational and environmental context in which they operate.

Alicia Juarrero's (1999) work on complexity in '*Dynamics in Action: Intentional Behavior as a Complex System*' illustrates how context-sensitive actions and events emerge from complex systems. She emphasises the non-linear nature of complex systems, where small changes can lead to significant, unpredictable effects. This perspective is well extended in her newest book *'Context Changes Everything: How Constraints Create Coherence'* (Juarrero, 2023), which helps us understand that cause and effect are often not directly proportional in complex environments and can be influenced by many interacting factors.

Donella Meadows is renowned for her work on systems thinking, particularly in environmental and sustainability contexts. In '*Thinking in Systems: A Primer*', Meadows (2008) highlights the importance of identifying leverage points in a system — places where a slight shift can lead to significant changes. For future managers, understanding these points can be crucial for effective strategy development and problem-solving.

David Snowden's (1999, 2005) Cynefin framework provides a valuable framework for understanding different types of systems — from simple and complicated to complex and chaotic — and how to approach decision-making in each. Snowden's work has focused on looking at complex issues relating to strategy and organisational decision-making. Since then, Snowden's work has been extended to three major frameworks in the Cynefin ecosystem, Cynefin, Estuarine and SenseMaker, which help managers recognise the nature of the system for effectively navigating the complexities of the 21st century. Using SenseMaker as a Research Tool explores the SenseMaker tool capacities in depth in the recent Making Sense of Complexity article (Van der Merwe et al., 2019).

In her book *'Learning Systems Thinking'* Diana Montalion (2024) emphasises the importance of shifting to systems thinking to navigate the increasing complexity of modern systems and make impactful decisions. She advocates for developing critical self-reflection and decision-making skills to effectively lead organisational cultural change (Montalion, 2024, pre-print). According to her experience, transforming a system of thinking necessitates shifting perspectives, fostering self-awareness, replacing reactivity with thoughtful responses, encouraging collaborative reasoning, and designing feedback loops for continual adjustment and recognition of patterns.

Incorporating complexity awareness and systems thinking into the management curriculum is essential for preparing future leaders. By understanding the interconnected, dynamic nature of complex systems, future managers can better anticipate and navigate the challenges of the 21st century. They will be equipped to recognise patterns, understand interdependencies, and think systemically, critical for addressing multifaceted business and ethical issues. As the world continues to become more interconnected and complex, raising the consciousness of the ability to think in this nuanced, holistic way will be increasingly crucial for effective, responsible leadership.

3.3. Perspective Skills

Perspective skills, strategic management, and sense-making are profoundly interrelated and collectively form a crucial set of competencies for anyone looking to navigate the complexities and uncertainties of the 21st century, particularly in the business world. These might include welcoming different views and seeking diversity, going from divergent to convergent thinking, seeking and understanding, and actively making use of insights from contrasting perspectives and polarities.

Perspective skills involve considering and understanding multiple viewpoints and acknowledging that different individuals or groups may interpret the same situation differently. Theo Dawson's work on perspective-taking highlights the ability to understand and reason about one's own and others' thoughts and feelings, which is essential for effective communication, problem-solving, and conflict resolution (Dawson, 2020-2021). In business, managers with strong perspective skills are better equipped to understand customer needs,

anticipate market changes, and collaborate effectively with diverse teams. They need to navigate the complexities of global markets, cultural differences, and ethical dilemmas by considering a broader range of possibilities and outcomes.

Strategic management skills involve formulating and implementing the major goals and initiatives a company's top management takes on behalf of owners. It is based on considering resources and assessing the internal and external environments in which the organisation competes. In the face of dynamic complexity, where change is the only constant, strategic management skills are more about adaptive learning and resilience than strict planning and prediction (McMillan, 2008; Teece et al., 1997). It is about creating flexible strategies that can evolve in response to an unpredictable environment. This requires a deep understanding of one's organisation and industry and the ability to anticipate and respond to changes swiftly and effectively.

3.4. Sense-Making

Sense-making gives meaning to collective experiences (Weick, 2005) and is essential in times of uncertainty and ambiguity for seeing patterns, structuring the unknown, and being able to create stories consciously. For Hübl (2023), it includes cognition and physiological sensing (p. 127). In the context of cognitive development, it involves taking the disparate pieces of information that bombard us daily and forming a coherent narrative that guides our understanding and action. This skill is crucial for managers who must make decisions with incomplete information and in rapidly changing conditions. The relationship between perspective skills, openness, and a learning mindset is central to effective sense-making. Sense-making capability enhances our ability to be conscious about whether or not we are open to new information. Knowing our level of one's openness to perceive what is new requires, as Thomas Hübl describes, attunement. In his latest book, *Attuned*, he highlights the importance of practising it to increase our inner and outer coherence in relationality.

Awareness of our diverse perspectives and willingness to learn and adapt one's understanding continually are critical for making sense of modern business's complex, interconnected and relational world. As the world continues to change at an unprecedented rate, these skills will become increasingly vital for managers and leaders across all sectors.

3.5. Long-Term Orientation and Visioning

Long-term orientation and visioning are essential cognitive skills for navigating the intricate landscape of the 21st century, marked by its VUCA characteristics (Bennett & Lemoine, 2014). These skills are vital in addressing multifaceted global challenges, such as those encapsulated in the United Nations Sustainable Development Goals (SDGs), where short-term fixes are insufficient and often counterproductive.

3.5.1. Long-Term Orientation

Long-term orientation involves looking beyond immediate concerns and planning for the future with a sustained commitment, holding intention, welcoming emergence and convergence, formulating and sustaining commitment to visions relating to the larger context. It is about understanding that some of the most significant challenges and opportunities unfold over extended periods (also reflected in De Vos et al.'s (2020) conceptualisation of sustainable careers as consisting of person, context, and time dimensions and Akkermans et al.'s (2018) conceptualisation of career shocks). Strategic thinking involves setting objectives,

understanding available resources, anticipating potential challenges, and devising robust yet adaptable plans. The SDGs, for instance, are a clear manifestation of long-term orientation and strategic thinking at a global scale, requiring concerted and sustained effort over many years.

3.5.2. Visioning

Visioning is about imagining a desired future state and working backwards to understand the steps needed to achieve it. It is a powerful tool in cognitive development, helping to align short-term actions with long-term objectives and providing a source of motivation and direction. In the context of complexity, having a clear vision is vital as it serves as a guiding star amidst the turbulence and unpredictability. It helps maintain focus and coherence in strategies and decisions, even when immediate circumstances are volatile. Vision is also an integral part of Sylvester and Donald's (2023) Personal Brand V.A.L.U.E. Career Development Tool, whereby the acronym represents Vision, Ability, Love, Understanding, and Ecosystem. Operationalisation of the Personal Brand V.A.L.U.E. Career Development Tool across the university-industry divide is shown via an in-depth case study in another article within this issue of the GiLE Journal of Skills Development (Sylvester & Donald, 2024).

3.5.3. Complexity and Strategic Frameworks

However, while valuable in ordered and complicated domains, traditional strategic tools like Porter's Five Forces or SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis may fall short in genuinely complex environments. David Snowden's (1999) Cynefin framework and, more broadly, systems theory and Si Network (https://www.systemsinnovation.network/) help to understand why. In complex systems, cause and effect are only apparent in retrospect, and there are no repeatable patterns that allow for straightforward predictions. Porter's (1979) strategy framework, excellent for understanding competitive forces in relatively stable and known markets, might not capture complex systems' emergent, unpredictable nature.

Similarly, tools like Strengths, Weaknesses, Opportunities, and Threats (SWOT) and Political, Economic, Social, Technological, Legal, and Environmental (PESTLE) analyses provide snapshots based on current understanding. They are less effective in environments where these factors are non-linear and in constant flux. In a VUCA world, adapting to emerging patterns, continuously learning from the environment, and revising strategies are crucial.

Estuarine's newest framework in the Cynefin ecosystem was developed to counter traditional approaches to strategy and reflect the key principles of change and its management in a dynamic and complex environment. Combining Deleuzian epistemology and Constructor Theory from Physics and Complexity Science will hopefully provide a coherent and easy-to-understand picture of the field as they are now linked within Estuarine. Future business leaders must cultivate an ability to sense and respond, experiment, learn quickly from successes and failures, and remain agile. The most progressive and innovative Business Schools now need to ask themselves how to update the teaching of international strategic management to meet its latest complexity frameworks and tools and introduce them to the professors of Strategic Management and Business Consulting so that the latest advances of theory and practice are introduced directly into business schools classrooms through cases, sensemaking and tools.

The 'Inner Development Goals Toolkit', available via IDG.tools, serves as a comprehensive library of resources to facilitate progress towards the UN Sustainable Development Goals (SDGs) through personal and organisational development. According to Stålne and Greca

(2022), the toolkit, in its public beta version, offers a variety of tools, including courses, exercises, and methods primarily rooted in adult developmental psychology. Notably for the Cognitive Skills domain, the IDG Phase 2 Research Report offers tools such as the Dialectical Thought Form Framework, Immunity to Change process, and Polarity Map are designed to help individuals comprehend complexity, challenge underlying assumptions, and navigate paradoxical problems, thereby enhancing cognitive skills essential for addressing global challenges (Stålne & Greca, 2022).

In summary, while long-term orientation, strategic thinking, and visioning remain foundational skills, their application in the 21st century requires a nuanced understanding of complexity. Future leaders must be equipped to navigate this landscape, understanding when to apply traditional strategic tools and when to adopt more emergent, adaptive approaches.

4. Implications

The role of universities in enhancing students' capabilities for work and life (Jakubik et al., 2023) directly overlaps with integrating IDGs into their curricula with the strategic aim to democratise and empower educational systems with a focus on holistic development. The overview for concept understanding of "Democratisation of Higher Education" for efficient university development was presented in 2018 (Shtaltovna, 2018). This integration can be achieved through eight specific and actionable recommendations that represent the practical implications of our manuscript.

The IDG has formed several circles in thematic areas for searching, elaborating, and spreading support for the SDG. For example, *The IDG Higher Education (HE) Circle*, led by Vivianna Rodriguez Carreon from the University of Sydney, organised monthly meetings online with academics, professionals and practitioners working within and with Higher Education. The Circle's aim was to co-sense and co-create common topics among those participating in the meetings. By the end of 2023, the HE Circle formed a growing global net of over 100 members. The main three topics identified to work within *IDG Higher Education Circle* were:

- Curriculum design to include pedagogy with transformative learning and assessment, including the IDG tools;
- Culture to include academic and professional leadership on campus and about relationships with community stakeholders; and
- Student-life aimed to work with leaders in experiential learning working within and with different Higher Education models depending on the regions of work.

In leading the IDG Higher Education Circle, Vivianna works closely with Fredrik Lindencrona, a core team member of the Inner Development Goals organisation. While the aims resulted from the conversations during the meetings, they meant to evolve to align with the organic co-creation of the growing HE Circle.

4.1. Curriculum Design

Universities might pioneer and redesign their curricula to include courses, modules, and/or learning objectives specifically focused on IDGs, ensuring that students gain exposure to cognitive, emotional, social, systems, and embodiment skills in existing courses across various disciplines in Business Schools and more broadly in Higher Education. IDG Higher Education Circle is a monthly initiative that powers this and gathers experiences from the most innovative

universities to share and disseminate. The introduction of IDGs into university curricula represents a forward-thinking approach to education, preparing students to meet the challenges of the 21st century with resilience, adaptability, and a deep sense of purpose.

4.2. Interdisciplinary Approach

Implementing an interdisciplinary approach to teaching IDGs in standalone courses, schools, corporate business networks, or via Ministries of Education and Science can demonstrate the applicability and relevance of cognitive thinking skills and broader inner development across different fields of study. This approach can foster a local-national-global understanding of how these various cognitive skills intersect with professional and personal life.

4.3. Experiential Learning

Universities can adopt experiential learning methods like project-based learning, internships, and service-learning opportunities, allowing students to apply IDG principles in real-world contexts. This hands-on approach can enhance the practical understanding and application of inner development skills, inviting the certified coaches and method representatives as visiting lecturers and/or into ideathons, hackathons and summer schools might ignite the process.

4.4. Faculty Development

Investing in faculty development programs to train educators in the principles and teaching methods of IDGs and specifically cognitive skills is crucial not only for Business Schools. Educators need to be equipped with the knowledge and skills to effectively incorporate IDGs into their teaching practices through financing CPD - Continuous Professional Development and therefore praised and financially motivated upon successfully integrating the received competence into classrooms.

4.5. Assessment and Evaluation

Developing assessment and evaluation methods that capture the growth and development in IDG-related competencies, including cognitive skills, is essential. This might include reflective assignments, journaling, 3-D mapping, collaborative projects, personal development plans, portfolio assessments, open feedback mechanisms focusing on personal and professional growth, inner and sustainable development.

4.6. Assessment and Evaluation

Cultivating a campus culture that values and promotes inner development can reinforce the importance of IDGs. This involves creating a supportive environment that encourages self-exploration, mindfulness, community engagement, volunteering, and habitually using mentoring, sponsoring, dialogue circles, and case clinics among students and staff. Small steps changes such as microactions instead of macrostrategies are proven to be more influential.

4.7. Collaboration with External Partners

Universities can collaborate with external partners, such as sustainable businesses, non-profits, and other educational institutions, to provide students with additional resources and opportunities to explore and apply IDG principles beyond the university setting. Cross-governmental funding requirements (Erasmus+, Horizon, Key Actions 2, etc.) and cross-cultural collaboration might fuel such integrations for sustainable careers and development.

4.8. Research and Innovation

Encouraging research and innovation in the field of inner development can contribute to the ongoing refinement and adaptation of IDG integration into higher education. The IDG Research Circle, led by Fredrik Lindencrona, IDG Head of Research Co-Creation, is igniting, supporting and spreading such studies. The Inner Development Goals initiative recognises explicitly that the current framework was developed with a predominantly "Western"-bias. Thus, currently, it coordinates the Global Framework 2.0 process to allow researchers, educators, students and others in educational systems and wider societies in more than 100 countries across the globe to bring their wisdom about key transformational skills for sustainable development to create the first framework truly inclusive of views from around the world.

5. Limitations and Future Research Agenda

Further research is obviously warranted to explore the implementation of the IDG framework across different educational levels and settings, including colleges, middle schools, K-12 education, and primary schools. Each educational stage presents unique challenges and opportunities for integrating IDGs, necessitating tailored approaches to curriculum design, teaching methodologies, and assessment strategies. Investigating these adaptations will provide valuable insights into how IDGs can be most effectively incorporated into the education system to foster lifelong learning and personal growth neighbourhood-wide, city-wide, nation-wide and globally.

Incorporating the remaining four dimensions of the IDG framework (*Being, Relating, Collaborating, and Acting*) into higher education and, more specifically, business school curricula represents a significant opportunity to enhance the relevance and impact of educational programs. This approach complements cognitive skills and provides a holistic development platform for students, preparing them for the complexities of modern careers and societal challenges. Integrating IDG tools into curricula could foster a well-rounded, adaptable, and resilient workforce equipped with the necessary skills to navigate and contribute positively to the VUCA world of the disrupted 21st century.

The application of the IDG framework in adult development and education for the elderly (third age) through various channels, such as international *Bildung* movements, *U-theory* movement, *Integral/Spiral Dynamics* movement, education and sustainability-focused NGOs, training centres, and holistic education centres, opens up multiple new avenues for research and the evolving needs of an ageing population promoting lifelong learning, enhancing quality of life, and leveraging the contributions of older adults to society. By systematically exploring these areas, scholars can contribute to the body of knowledge on systemic and adaptive personal and professional development, ensuring that education systems are better equipped to meet the needs of individuals and societies in the 21st century.

In addition to the education sector, research and innovation based on IDG skills are underway in many societal sectors relevant to transformation for sustainable development, such as leadership and management and urban and rural planning. The capacity of the educational sector to help facilitate IDG development across these sectors needs to be better understood and explored. The call for further research on the IDG framework across the educational spectrum reflects expanding the scope of IDG research to include all dimensions (not only Cognitive Skills) and their application in various educational settings; the academic community can drive

forward the conversation on how to best prepare individuals for the challenges and opportunities of the future.

For future research and practice, several directions are recommended. Firstly, there is a need for further exploration of how these cognitive skills can be effectively cultivated at various stages of education and professional development. Secondly, examining the application of other skills within the IDG Framework in diverse cultural and organisational contexts can provide insights into their universality and adaptability to empower sustainable career development. Thirdly, research could focus on developing metrics and assessment tools to measure the growth and impact of these skills over time. The 6-Level Skills Development Approach to Skill Assessment was already proposed by Shtaltovna (2021). Aligning this 6-level chart of skill development based on the "can-do descriptors" approach by CEFR, also known as the ability assessment approach, for further discussion, development, and application can be a promising tool for the soft skills, 21-st century skills and the competences for IDGs. Finally, as the world continues to evolve rapidly, ongoing research into how these cognitive skills can best support adaptive and ethical decision-making in new and unforeseen contexts is crucial.

6. Conclusion

The literature on cognitive skills development underscores the intricate, interconnected nature of these skills and their pivotal role in navigating the complexities of the modern world of the multifaceted nature of critical analysis, evaluation, and synthesis. Complex problem-solving and strategic thinking are discussed in light of dynamic complexities and the VUCA world, advocating for a nuanced understanding of traditional tools like Porter's strategies and the need for adaptive, responsive approaches.

The IDG framework emerges as a critical tool, promoting an open-ended exploration of cognitive skills. It suggests an adaptive, holistic, and integrative pedagogical approach, reflecting these skills' multifaceted and dynamic nature (as also captured by Cole and Donald's (2023) holistic approach to encompassing life-wide and lifelong learning). The importance of perspective skills, long-term orientation, and visioning are also underscored, pointing towards the necessity of understanding multiple viewpoints, strategic foresight, and a clear, adaptable vision in managing the challenges of the 21st century.

Universities have increasingly been tasked with teaching personal skills essential for the modern workforce, such as critical thinking, creativity, problem-solving, and digital literacy, among others. Jakubik et al. (2023) emphasise that while this concept of the ideal intellectual is not new, the contemporary version extends beyond traditional academic knowledge to include a moral attitude and people-centred thinking, highlighting the need for graduates to be philanthropist-postmodern-humanists equipped with a well-rounded education that values empathy and ethical conduct.

In summary, the literature paints a picture of cognitive skills development as a lifewide, lifelong and dynamic process crucial for personal growth, sustainable career development, sustainable growth and effective leadership. As suggested by the IDG framework, an open, adaptable approach is essential for nurturing all the IDG skills in a world characterised by complexity and constant change.

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Declaration Statements

Conflict of Interest
The third author is a member of the Inner Development Goals core team.

Funding
The authors received no financial support for this article's research, authorship, and/or publication.

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp95-103

GILE Journal of Skills Development

Supporting Widening Participation Students Without Creating Dependency or Leaving Them Unprepared for Work in the Neoliberal Era: A Discussion Paper

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Abstract

In a rapidly changing employment context, research holds that the desirable attributes of grit, resilience and context adaptation will become fundamental to the ongoing employability of current students. The employment landscape has become atomised and volatile under neoliberalism, exemplified by the broken psychological contract between employer and employee. Graduates from widening participation backgrounds entering the labour market will see their existing barriers to career success exacerbated by these changes in the world of work. For students from widening participation backgrounds, the neoliberal policies that underpin these changes are congruent with other policies that exacerbate their socioeconomic and educational disadvantages. Consequently, universities must play an increasingly important role in supporting students within and outside of the taught curriculum. This paper explores ways universities can continue to provide students with the necessary support without building dependencies or expectations of support that would inhibit the development of grit, resilience, and context adaptation. As a starting point for further discussion, this paper proposes guiding principles for universities to inform institutional Teaching and Learning strategies.

Keywords/key phrases: employability, widening participation, grit, resilience, lifewide learning

1. Introduction

"As much as qualifications and skill are important in finding work, so is luck, particularly whether you're born at a time of plentiful jobs, or at a time, like now when the spectre of job losses and the growing dominance of the gig economy loom large."

– Amelia Horgan, Lost in Work: Escaping Capitalism. 2021.

This discussion paper considers the specific challenges that widening participation students face as they prepare to enter the neoliberal work environment.

The global labour market is rapidly evolving, requiring employees to have specific attributes to function effectively.

The tumultuousness inherent in the rapidly changing workplace is often characterised by the acronym VUCA (volatile, uncertain, complex and ambiguous), with each element suggesting related but distinct challenges for employers and employees alike (Bennett & Lemoine, 2014). In recognition of this, desirable characteristics notably grit (Ismail et al., 2023), resilience to career shocks (Khanna et al., 2022) and context adaptation (Coetzee & Engelbrecht, 2019) now appear in the academic literature alongside more traditionally recognised employability skills such as problem-solving, communication, and teamwork (Tushar & Sooraksa, 2023). In a VUCA labour market in which the psychological contract between employer and employee has irreversibly changed (Baruch, 2022) and the responsibility for developing an employee's capabilities has been renounced by employers (Grabarski & Shwartz-Asher, 2022), the requirement for graduates to have the capacity for lifelong – and, indeed, lifewide – learning has never been more pressing (Cole & Donald, 2022).

The higher education sector has undergone a similar rapid evolution in the neoliberal era (understood to begin with the Reagan administration in the USA) with massification, marketisation, and the increasing influence of business on policy, process and programme design. The programme of massification has necessitated the recruitment of students from underrepresented groups (Reddy & Moores, 2008), referred to as widening participation students. By definition, these students are demographically significantly different to students who traditionally attended university before massification. Widening participation and educational opportunities differentiated by class are often viewed through a Eurocentric or Western lens, however, Ni Chorcora et al. (2023, p.2) show that "International studies highlight how access to higher education is not evenly distributed across all groups in society, with social class continuing to influence student pathways from secondary school". In a marketised higher education sector, there are increasing existential threats for institutions whose graduates do not meet expected employment or income levels (Bradley & Quigley, 2023). When a university caters predominantly to widening participation students and/or offers courses which are socially valuable but poorly paid (for example, social work, nursing, and humanities), then the threat is exacerbated by deeply entrenched structural inequalities (Byrne, 2022).

This article will highlight the compounding negative impacts of neoliberal policy and suggest guiding principles for universities in supporting students during their studies to prepare them for the VUCA labour market that they will graduate into where that support will no longer exist.

2. The multiple impacts of neoliberal policy on the higher education sector

Massification, or the rapid growth of university students, is a deliberate consequence of government policy worldwide (Burke, 2020). There are many positive aspects to the opening up of higher education to participants who would previously have been excluded (Adnett, 2016). However, massification has also created issues and inequalities that remain unaddressed. Examples of these issues include:

1. Recruiting widening participation students into an education system designed for traditional students creates inequalities in experience and a stratified student demographic (Cunningham & Samson, 2021).

2. Widening participation students require different and more resource-intensive support to navigate and derive maximum benefit from the university experience (Thomas, 2020).

3. Massification has not led to enhanced meritocracy in the labour market. In most cases, social class and family background are stronger influences on post-graduate

employment and income than either degree classification or awarding institution (Friedman & Laurison, 2020).

4. Widening participation students' continuation and attainment levels are markedly lower (Richardson et al., 2020). In response, governments have instituted targets for student retention and attainment, holding universities responsible for the consequences of issues created by socioeconomic inequalities resulting from government policy (Byrne, 2022).

Alongside the massification of the sector, many countries introduced competitive marketisation of Higher Education, including league tables and value measurements based on how well each institution achieves the objectives outlined for it by its government. In the era of neoliberalism, these measurements are inevitably predicated upon contributions to economic growth, measured by graduate earnings, and 'value for money' for the consumer-student (see, for example, Office for Students, 2022). Consequently, universities have adopted curriculum modifications and additional support to help ensure that graduates gain employment that demonstrates success according to these metrics (Bui et al., 2019). Academics have heavily criticised the employability agenda, but it remains an immutable reality that universities must navigate (Fellows, 2023).

The cost of higher education in the era of massification has been increasingly passed from the state to the individual in the form of student debt (Goodnight et al., 2015). Again, this has been the topic of significant criticism (Williams, 2006), and the damaging impacts of student debt accumulation on the continuation of study and graduate success have been well-documented (Preest, 2021). Such is the controversy around student debt that many governments have subsequently capped or frozen the amounts charged by universities, which amount to real-terms income reductions that require cost-cutting in other areas, including among teaching and student support staff (Cox, 2021). In response, competing universities have been increasingly aggressive in recruiting students (McNay, 2021) and are incentivised to retain students on their roll for whom university might not be the best option at the time.

3. The broader social impacts of neoliberalism

Neoliberalism emerged as the predominant ideological driver of government policy in the United States during the Reagan administration (1981-9) and extended to most developed governments in the following years (Ross & Gibson, 2007). Core to the neoliberal ideology is a drastic reduction in state spending to allow for lower levels of taxation for the individual. However, commentators have identified that those tax cuts have disproportionately favoured corporations and wealthy individuals (Hope & Limberg, 2022) and that state expenditures benefitting corporations and the rich have been relatively unaffected by the reductions (Stubbs et al., 2022).

For the majority of people, the impact of neoliberalism has been a general and consistent degradation of state amenities (schools, hospitals, infrastructure) and support structures (welfare payments, mental health services, community programmes). Specific examples of these cuts that are pertinent to this discussion would include the withdrawal of community-based wellbeing interventions, significant delays in access to non-emergency healthcare, including diagnoses and/or treatment for mental health or neurodiverse conditions, legal support for the low/un-waged, and in-school support for struggling pupils (Hargreaves, 2021).

This situation has been accelerated by events such as the global financial crisis of 2007-8 and the COVID-19 pandemic of 2020, both of which were followed by significant transfers of money from governments to the wealthy and further drastic cuts in public expenditure under the misleading rhetoric of 'balancing the books' (Hope & Limberg, 2022). Inequality in

countries governed following neoliberal priorities dramatically increased throughout this period, particularly in the years since the COVID-19 pandemic (Irving, 2021).

In line with the broken psychological contract between employer and employee mentioned above, there has been a general degradation of the terms of employment and long-term stagnation or reduction of wages offered by employers during the neoliberal era, exemplified by the rise in the proportion of gig economy work, which places employees in the position of accepting whatever hours are offered or risking not being asked again, thus losing their income (Horgan, 2021). The proportion of gig economy work is projected to grow significantly in the years ahead and predominantly impact younger workers (Heing, 2021).

4. The impact on widening participation students

Universities catering to widening participation students are now experiencing the implications of neoliberalism and must tailor their support accordingly. Given the increasing inequality experienced by widening participation students, it could be legitimately argued that they are less similar to students from more privileged backgrounds than any cohort before them. This manifests itself in the increasing necessity to take on full-time work alongside their studies (Cunningham & Samson, 2021), which leaves students unable to plan work and study effectively and vulnerable to missing teaching to attend work at short notice (Sloan et al., 2020). Universities may interpret this behaviour as disengagement rather than as a consequence of systemic issues beyond the student's control, exacerbating feelings of not belonging, which are significant barriers to learning for widening participation students (Thomas, 2020).

Compounding these issues are the still-evolving longer-term impacts of the lockdowns and other disruptions associated with the Covid-19 pandemic, which impacted the school and social learning of current and future students and, as a further consequence of structural inequalities in the neoliberal era, disproportionately affected the demographic from which widening participation students are drawn (Blundell et al., 2022).

Among these widening participation students will be returners to education or students who did not achieve the necessary grades (and do not have the necessary social capital) to gain a place in more prestigious institutions, both of whom are likely to have had unsatisfactory experiences in compulsory education (Jones, 2021). In many cases, there will likely be students with late or undiagnosed learning difficulties or health issues and disabilities, which may have impacted their school experiences often as a result of waiting lists caused by reduced public spending (Ryan, 2019). Among the returners to education will be students with parental or caring responsibilities and households to maintain (Clifford, 2019). For universities, these students will require additional and supplementary accommodations, including timetable or submission flexibility, writing or study mentors, lecture capture (with captioning, in some cases), and additional tutorial support.

5. Employability skills in the era of the Fourth Industrial Revolution

Perhaps more than at any other time in modern history, the employment landscape is volatile, atomised and characterised by career-shock events (Donald et al., 2023). The growth of gig economy employment and portfolio careers have profound implications for the skills required to prosper. While long-standing labour market expectations of graduates persist (Tushar & Sooraksa, 2023), additional attributes are entering the literature in response to the shifting employment landscape, with three significant examples offered below.

5.1. Grit

Ismail et al. (2023, p.3) define grit as "perseverance of effort and consistency of interest" and highlight how this personal characteristic enables students to meet prospective employers' competency expectations.

5.2. Resilience to Career Shocks

Khanna et al. (2022, p.7583) argue that particularly for Generation Z, the development of attributes that will allow students to remain resilient in the face of significant, unforeseeable disruptions, particularly in the VUCA world in which they will be employed is crucial.

5.3. Context adaptation

Coetzee and Engelbrecht (2019, p.1006) state that "organizations demand of knowledge workers to be highly adaptable to changing business conditions and to stay relevant by proactively managing their employability", highlighting the importance of context adaptation, not only to navigate shifting contexts between roles as part of a portfolio career and in response to career shocks but also with a relatively stable role as employing organisations and technologies rapidly evolve.

6. Guiding principles for universities

The requirement for graduates to possess and develop attributes that respond to the detached and precarious nature of the labour market presents a significant challenge for universities: how to nurture and support students, for example, with submission flexibility and additional tutorial support, without leaving those students unprepared for a labour market wherein nurturing and support barely exist? In higher education, where a student has a recognised barrier to participation in a task, accommodations will be made, but in the world of work, the employee is at risk of being found incapable of performance and dismissal as accommodations are considered unreasonable by the employer (Cornelius, 2023). The challenge for universities is providing support for students without leaving them unprepared for a labour market where similar support is likely unavailable.

6.1. Support and accommodations

Notwithstanding the practical imperative of regulator expectations, universities have a moral obligation to support all students equitably to fulfil their potential. Support services and other accommodations are necessary and welcome and should be continued or extended.

6.2. Curricular learning

Universities should address the development (and recognition) of grit, resilience to career shocks and context adaptation exclusively within the curriculum without diluting its provision of supplementary support. Higher education should allow students to grow, learn, and 'find themselves'. When a university focuses on supporting the development of character attributes rather than narrowly focusing on measurable skills (Cole & Donald, 2022), educators can positively impact their students' character development and identity formation (Tomlinson & Jackson, 2021).

The psychologist Carl Rogers once said, "I have come to feel that the only learning which significantly influences behaviour is self-discovered, self-appropriated learning" (1961, pp.276-277), and these sentiments significantly inform this guiding principle. Widening participation students rely upon grit and resilience not despite the barriers they face but because they face those barriers. Widening participation students are consistently required to adapt to

context in an environment which depends upon threshold knowledge they may not have learned in school, refers to prior teaching that they have not yet caught up on, and challenges them with immutable timetables and a precarious work-life-study balance.

The task for educators is to facilitate self-appropriated learning, to surface and develop students' belief in the value of these attributes and their effectiveness in utilising them. To explicitly articulate, for example, what *grit* is and why it is so highly prized in the modern employment landscape and then support students in developing or recognising this attribute within themselves and relating this to their professional identity (Tomlinson & Jackson, 2021).

6.3. Recognition and reward

Supporting students in recognising and developing the capability to draw upon skills such as grit, resilience, and adaptation begins with work that explicitly identifies the value of life-wide learning (Cole & Donald, 2022). Recognition does not necessarily need to be formalised in the form of achievement awards or certification, but recognising and rewarding these attributes in a formal context should sufficiently legitimise these attributes for a cohort who may not yet have the self-confidence or self-efficacy to do so for themselves. Educators can support students in developing self-belief by explicitly demonstrating belief in their students.

6.4. Peers and alumni

The value of peer support and role modelling in developing student attributes and a sense of belonging is well-established in the literature (Cameron & Rideout, 2022; Thomas, 2012). For students who are facing significant barriers in the employment market (Byrne, 2020) and often lack both self-belief and the capital that can enable an easier postgraduate transition (Clarke, 2018), the prospect of hearing from people who *look like them,* reinforcing these messages and offering experience of navigating the workplace may be invaluable. In addition to enabling students to construct personal networks and support structures, facilitating structured interactions with peers and alums could effectively underpin curricular learning and recognition and reward initiatives.

7. Conclusion

This paper discussed the sociopolitical context in which widening participation students are educated, the requirements for extra-curricular support that are required of educators and the potential implications of building reliance on that support when similar support is unlikely to be unavailable in postgraduate life. As an initial contribution to a broader discussion, guiding principles were suggested for universities to consider when supporting students in developing desirable attributes of grit, resilience, and adaptability. Universities looking to develop future-facing programmes that appropriately prepare students for postgraduate life should strongly consider embedding these and similar related principles in the curriculum as part of their broader employability-focused strategy.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp104-124

GILE Journal of Skills Development

The Digital Bridge Project: Strengthening Cognitive Resilience in Ukrainian and EU Students

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Abstract

The events in Ukraine in 2022 had a devastating effect on its population. The authors of this paper considered whether it would be possible to strengthen both Ukrainian and other young people's cognitive resilience in the face of different forms of conflict if they were put into contact with students in other countries. One potential means for building this resilience that could be explored in a classroom setting was the provision of a platform through which to compare perspectives with fellow students of other nationalities while gaining exposure to and practical experience with a set of cognitive tools for understanding and addressing challenging situations. The Digital Bridge Project (DPB) was designed to improve these students' English and critical analysis skills through direct exchange with their counterparts in other parts of the world via five online interviews in which they explored decision-making tools proposed by a variety of authors. The following case study describes how the Project was conducted. Three Ukrainian universities and the University of Europe for Applied Sciences in Iserlohn, Germany participated in this study. The results of the Project indicate that it is a model that can be applied effectively in a variety of subject areas. The authors recommend that schools and universities wishing to emulate the model discussed here should adapt the format to their specific needs. The results of the student surveys from both countries involved indicate that the method can empower students to address a wide range of disruptive forces in business and society with tools that are part of a 21st century skill set for both enhancing managerial decision-making and encouraging participatory democracy.

Keywords/phrases: cognitive resilience, critical analysis skills, decision-making

1. Introduction

After an initial outpouring of support and interest in the Ukrainian situation in 2022, new conflicts began to compete for the public's attention. Convinced that young people across Europe could benefit from enhanced cognitive resilience under these circumstances, the author designed a program for an online exchange between German and Ukrainian university students. In this project, cognitive resilience was defined as the ability to thrive despite adversity, including but not limited to that caused by military conflict. This is a variation on the expression's usage in the behavioural sciences (Flood & Keegan, 2022), in which resilience has been described as the demonstration of 'positive adaptation despite experiences of significant adversity or trauma' (Luthar & Cicchetti, 2000, p. 858) as well as a combination of personal characteristics enhancing an individual's ability to adapt to demands successfully (Fletcher & Sarkar, 2012).

The author theorized that cognitive resilience could be strengthened in a classroom setting in two ways: through the study of critical thinking frameworks designed to guide decision-making even in times of stress, and via direct communication, which could provide a powerful antidote to the potentially negative impact on decision-making that confusing or misleading media narratives can have. The author contacted institutions of higher education across Ukraine inviting them to participate with the University of Europe for Applied Sciences in Iserlohn, Germany (UE) in a program called The Digital Bridge Project (DBP). Students and teachers from three prominent Ukrainian universities, the Kyiv School of Economics (KSE), Odesa I. I. Mechnikov National University (ONU) and Vasyl Stefanyk Precarpathian National University (VSPNU) responded, volunteering to join the DBP.

The aim of this effort was to expose students to educational methodology that fosters cognitive resilience through academic and personal development, bolstering their perception of themselves as empowered, active participants in the shaping of their own lives, particularly in times of conflict. It was felt that this could be achieved through the study of analytical frameworks designed to promote more informed decision-making. Additional objectives included improving the participants' ability to conduct joint interviews in English, and to collaborate effectively with others in an online environment using digital tools. A final goal was to encourage students to see themselves as global citizens, and to build international networks for possible future benefit.

2. The Digital Bridge Project: Methods and Findings

2.1. Selection Criteria

The analytical frameworks selected as the foundation for the DBP templates were chosen based on their attention to building critical analysis skills in ways that can be applied across a wide array of conflict situations. Each provided a "tool in the critical thinking toolkit" students were given and encouraged to practise using throughout the DBP.

Doughnut Economics (Raworth, 2017) invites readers to consider seven proposed paradigm shifts when making business and policy decisions. To do so, both Raworth and the author of Theory U (Scharmer, 2018) refer to and expand upon the concept of systems thinking and the related Iceberg Model (Menge, 2006). Each of these authors encourages a big-picture perspective on the consequences of actions taken in different ways. Images and supplementary material are provided by the DEAL (Doughnut Economics Action Lab, 2020).

Similarly, the Transformation Maps developed by the World Economic Forum (World Economic Forum, 2019) foster a heightened awareness of how microeconomic issues on which

leaders in a given field may wish to focus their attention can have both powerful knock-on effects on other sectors of society and simultaneously be affected by larger external forces. Because these leaders may have less knowledge of these fields outside their immediate area of expertise, they may have significant blind spots with regard to how their "piece" fits into the larger puzzle of greater societal well-being. Transformation mapping helps address this issue by providing maps that show these interconnections more clearly based on the research organised by the World Economic Forum.

The "How Might We" (Rosala, 2021) and "Flare" aspects of the Design Thinking method (MIT Open Learning Library, 2018), as well as the analytical strategies proposed by Theory U provide frameworks designed to maximise the ability of disparate groups to work together in order to help users better understand and find solutions for the conflicts they face.

The Media Literacy Framework (Thoman, 2003), like all other concepts featured in the program, encourages users to ask questions and seek the answers themselves. It provides tools for reflecting more deeply on what they are dealing with, in this case a range of publicised messages, and so can empower students to both avoid being manipulated by them while helping them construct their own more effectively.

Each of these concepts were featured in the templates, or "architecture" of the DBP, which were accessible online in Mural, a visual collaboration tool, to all students. A different template was created for each joint interview session to be filled in with the ideas of the participants during their discussions.

2.2. Research Questions

The authors wished to establish whether the project design could assist students in strengthening their knowledge of and interest in the critical thinking skills-related topics covered, as well as their sense of personal empowerment in terms of ability to make a positive difference in their own lives.

This was attempted by asking participants to use the frameworks to, among other tasks, think about and articulate what they wish the societies they live in to be like in the future and what policies might foster those outcomes. For example, they were asked which content, including values, they would want included to promote desired results if a segment dedicated to what they considered important conversations were to be added to curricula in their countries. The authors also desired to explore students' evolution in terms of their existing beliefs and perspectives as well as their preferences regarding the five templates employed.

2.3. Methodology

In this study, both quantitative and qualitative methods were used to collect data. The quantitative method entailed two authors' surveys. Some questions asked students to rate different aspects of the project on a 1-5 scale. Qualitative data were also collected using templates (in joint interviews) and written and recorded reflections by the students. Open-ended questions in the surveys were used to collect data about opinions, values and interests (Gall et al., 2003). The entrance survey assessed the students' background knowledge of and interest in topics discussed and their sense of personal empowerment to affect the world outside their immediate circle. The exit survey traced the evolution of the students' competencies, gathering feedback on preferences and recommendations.

2.4. Participants

Twenty-two undergraduate students from VSPNU, eight students from KSE and eight students from ONU participated in the DBP. The latter two groups consisted of a mix of undergraduate and graduate student volunteers from a range of study programs. The VSPNU students were paired with thirty-four undergraduate students from UE, while the KSE and ONU students were paired with seven undergraduate UE students.

2.5. Structure

In each meeting, the participants interviewed each other in subgroups of four to eight students per university during five one-hour online sessions from October to December 2023. During the joint interviews, discussions based on a given template were conducted by groups of students with diverse backgrounds and expertise. The application of this approach reveals multiple perspectives and produces collaborative insights.

2.6. Joint Interview Frameworks

Each of the five joint interviews was guided by a different analysis framework template. The author designed templates using the online visual collaboration tool Mural and shared them with all members of the DBP. Their conversations took place in Microsoft Teams. The framework concepts were introduced to the UE students before each interview and reviewed afterwards. Part of the UE students' task was to explain the basic ideas in their own words to their partners before applying them together.

Before the first joint interview, UE students were given a briefing on how to conduct themselves based on recommendations proposed by Shtaltovna and Muzzu. According to them, these classroom methodologies prepare students for a digital future (Shtaltovna & Muzzu, 2021) (see Figure 1).

FIGURE 1. RULES OF ENGAGEMENT FOR THE STUDENTS

Source: Author slides. Image by rawpixel.com, © rawpixel ltd., 2023.

Participation was not graded for the Ukrainian students. Grading for the UE students was not dependent on the nature of what, if any, opinions were articulated. Each reflection, recorded or written, was usually due within two weeks of the meeting according to the following format guidelines:

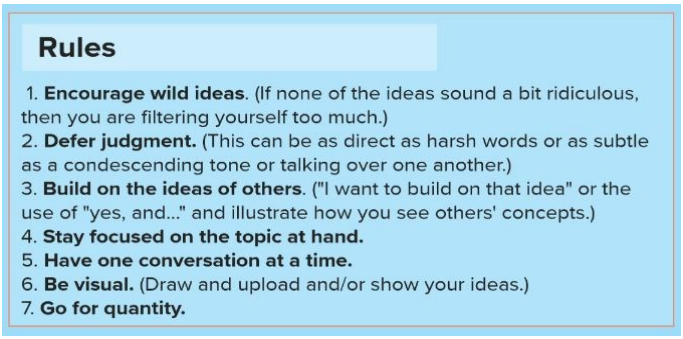
- **Joint Interview 1 - Doughnut Economics (Raworth, 2017) and Design Thinking (Rosala, 2021) on Tomorrow's Values:** Three-minute reflection sent to the instructor as a video link using the online software platform Loom through free student accounts.
- **Joint Interview 2 - Systems Thinking Iceberg Model (Menge, 2006):** Written reflection of 350 words sent via Microsoft Teams to the instructor.
- **Joint Interview 3 - Transformation Mapping (World Economic Forum, 2019):** Three-minute reflection sent to the instructor as a video link using the online software platform Loom through a free student account.
- **Joint Interview 4 - Media Literacy Framework (Thoman, 2003):** Written reflection of 350 words sent via Microsoft Teams to the instructor.
- **Joint Interview 5 - Theory U (Scharmer, 2018):** Three-minute reflection sent to the instructor as a video link using the online software platform Loom through free student accounts about the last joint interview and class topics since that meeting up until the week before the due date for this reflection.

2.6.1. Doughnut Economics and Design Thinking

In the first joint interview session students introduced themselves and were asked to work with two aspects of design thinking after studying the How Might We (HMW) question style (Rosala, 2021) and the first part of the Flare and Focus method (MIT Open Learning Library, 2018), to develop and articulate their own personal, societal, and professional objectives and possible paths to them.

First, they were asked to read the rules seen in Figure 2, to be applied not just to the initial but all five sessions.

FIGURE 2. RULES OF ENGAGEMENT FOR JOINT INTERVIEWS

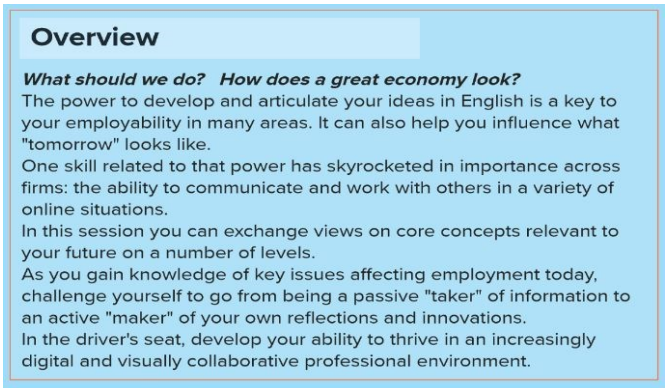


Source: Author design, 2023.

These rules were based on general Design Thinking principles as discussed by the Interaction Design Foundation (Interaction Design Foundation, 2016). They were included to foster a sense of connection between the participants and to encourage independent thought and active, creative exchange in a welcoming environment.

Students also received an overview promoting the "Takers to Makers mindset" (Shtaltovna & Muzzu, 2021) as seen in Figure 3.

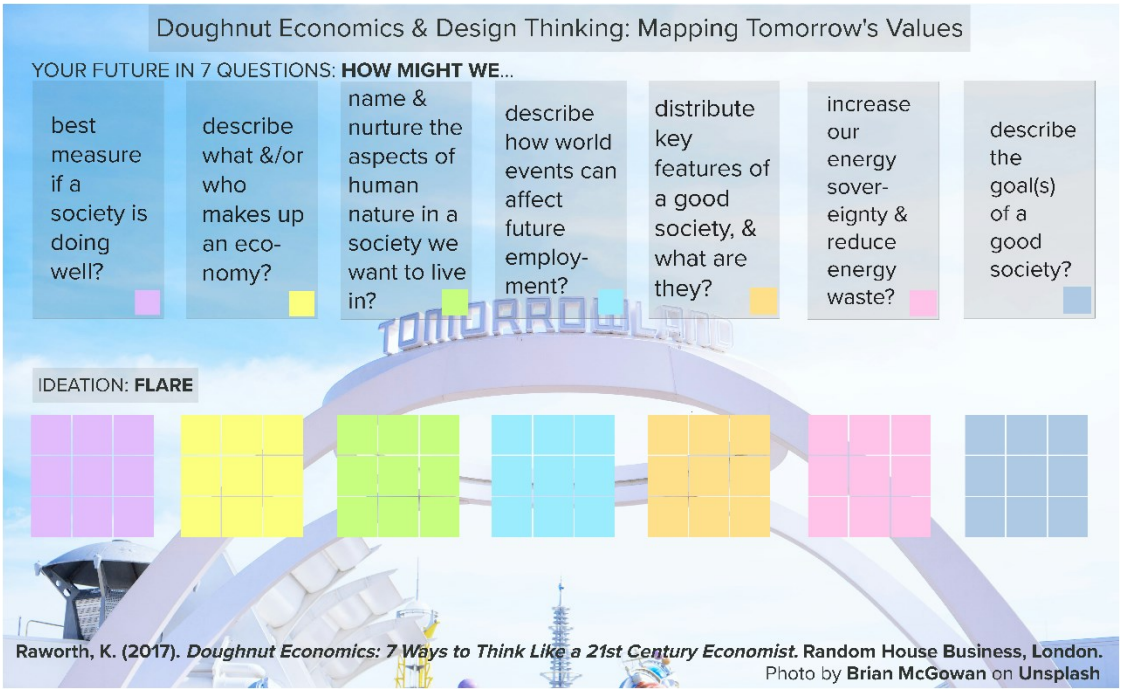
FIGURE 3. INTRODUCTORY OVERVIEW FOR JOINT INTERVIEW 1



Source: Author design, 2023.

They were asked to discuss seven "How Might We" questions based on core principles of Doughnut Economics (Raworth, 2017). The aim of this format was to introduce students to Raworth's proposition that there is much more to a functional economy in the service of its population than growth via an exploration of their own priorities. Students were asked to place their thoughts on digital notes on the template provided as seen in Figure 4.

FIGURE 4. JOINT INTERVIEW TEMPLATE 1

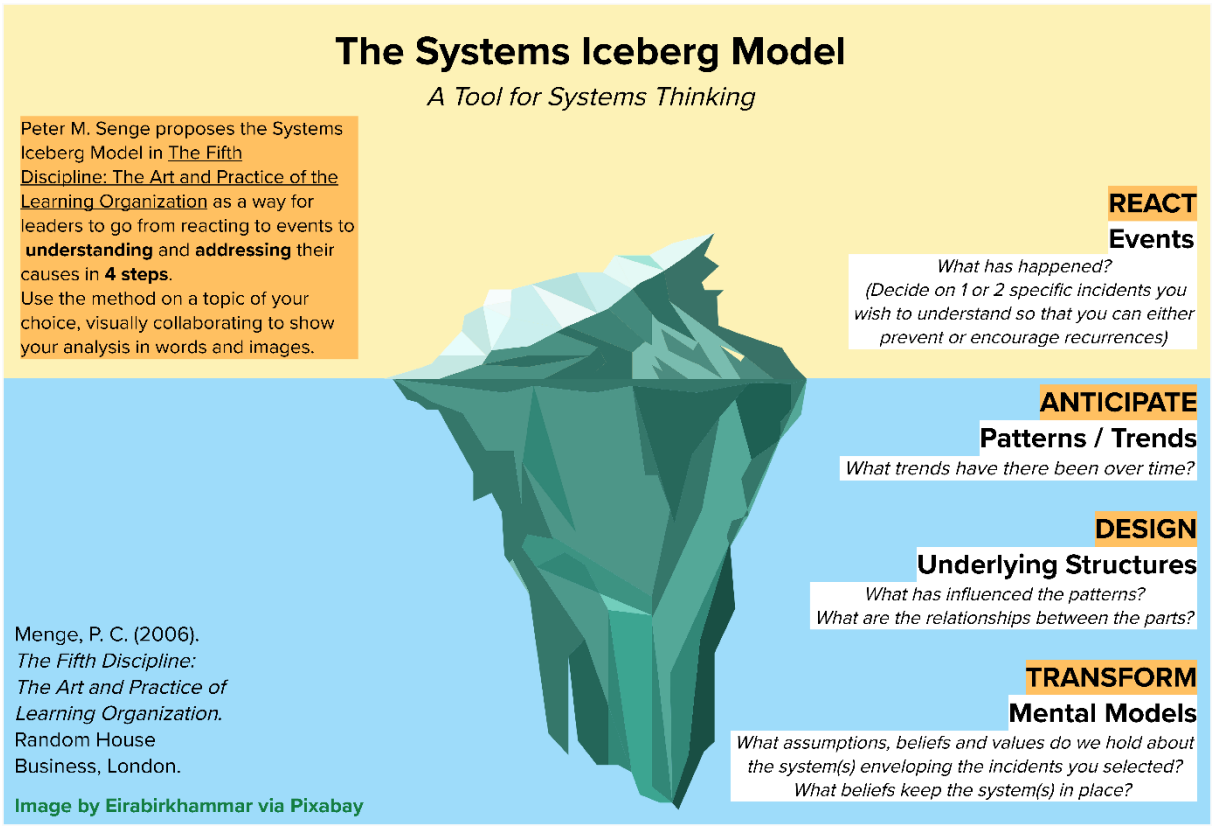


Source: Author design with image by Brian McGowan on Unsplash, 2023.

2.6.2. The Systems Iceberg Model

In the second joint interview, participants were introduced to the Systems Thinking Iceberg Model as a framework for understanding the patterns, structures and mental models that lead to geopolitical, economic and even personal upheaval and gaining insight on how to change them for the better. After watching videos and reading about the concept described by both Menge (Menge, 2006) and Scharmer (Scharmer, 2018), students were asked to think of and work on a topic of their choice together on which to apply the framework shown in Figure 5.

FIGURE 5. JOINT INTERVIEW TEMPLATE 2



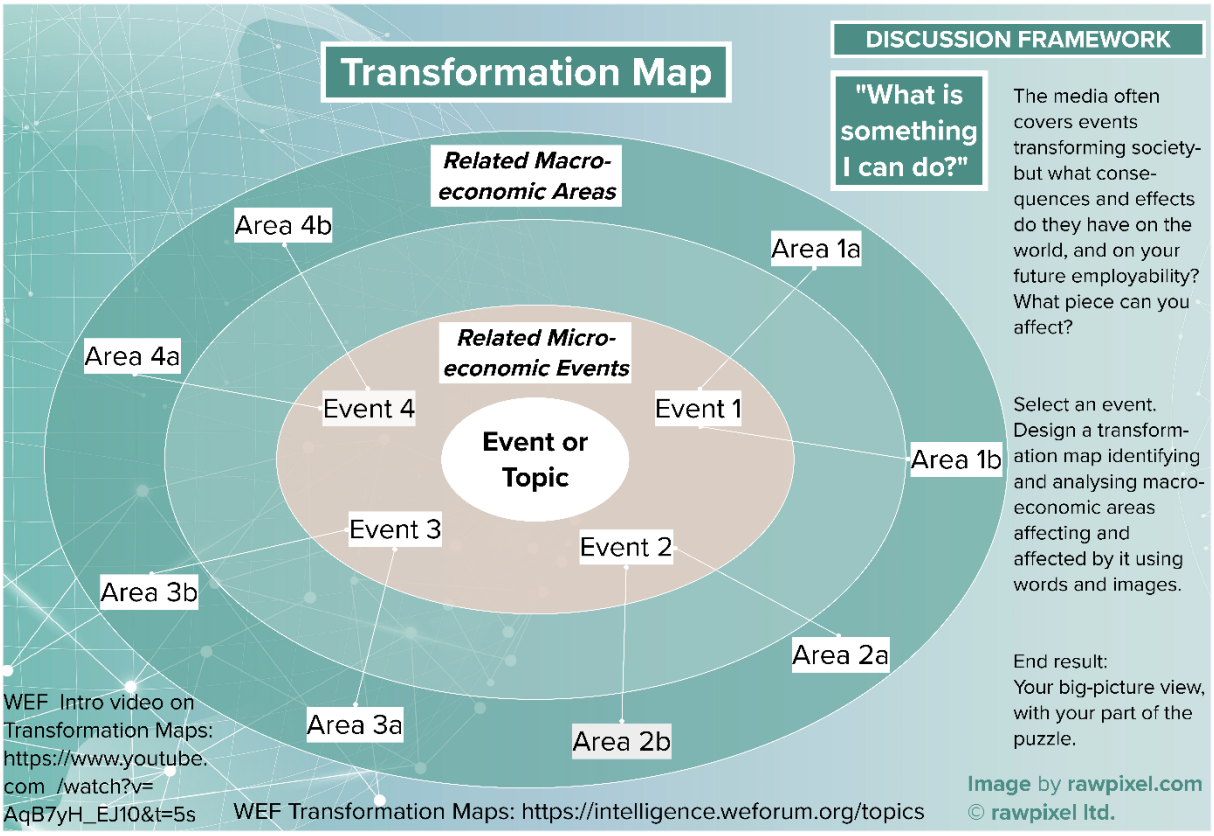
Source: Author design with image by Eirabirkhammar via Pixabay, 2023.

2.6.3. Transformation Mapping

This segment began by asking students to obtain a free account in the World Economic Forum to gain access to their evolving library of transformation maps, which they describe as a "way of seeing the hidden connections between global issues" (Landale, 2017). Once registered, they were asked to explore the options available and select a transformation map of their choice (World Economic Forum, 2019) and present highlights from it, so gaining experience in this way to better research and understand the interrelated macroeconomic effects of a host of issues transforming society.

During the joint interview session, they practised using the method to analyse an event of their own choosing in a way that acknowledges and embraces the complexity and interdisciplinary nature of a given issue. After reflecting together on the many and varied macroeconomic consequences of microeconomic events, they were asked to use the map to identify areas where they have the leverage to make a difference, however small, in what may appear to be an intractable problem. This framework, as seen in Figure 6, thus provided both exposure to the transformation maps already made available by the World Economic Forum for future reference as well as an introduction to applying the format to issues of students' own choosing later, for example, at their places of employment. Transformation mapping can thus reveal previously unconsidered points of contact where they can say, "This is something I can do" when faced with an issue or crisis which may feel initially overwhelming. While gaining a deeper understanding of how a given event is interconnected with an array of areas touching their lives, students were invited to see themselves as stakeholders with the agency.

FIGURE 6. JOINT INTERVIEW TEMPLATE 3



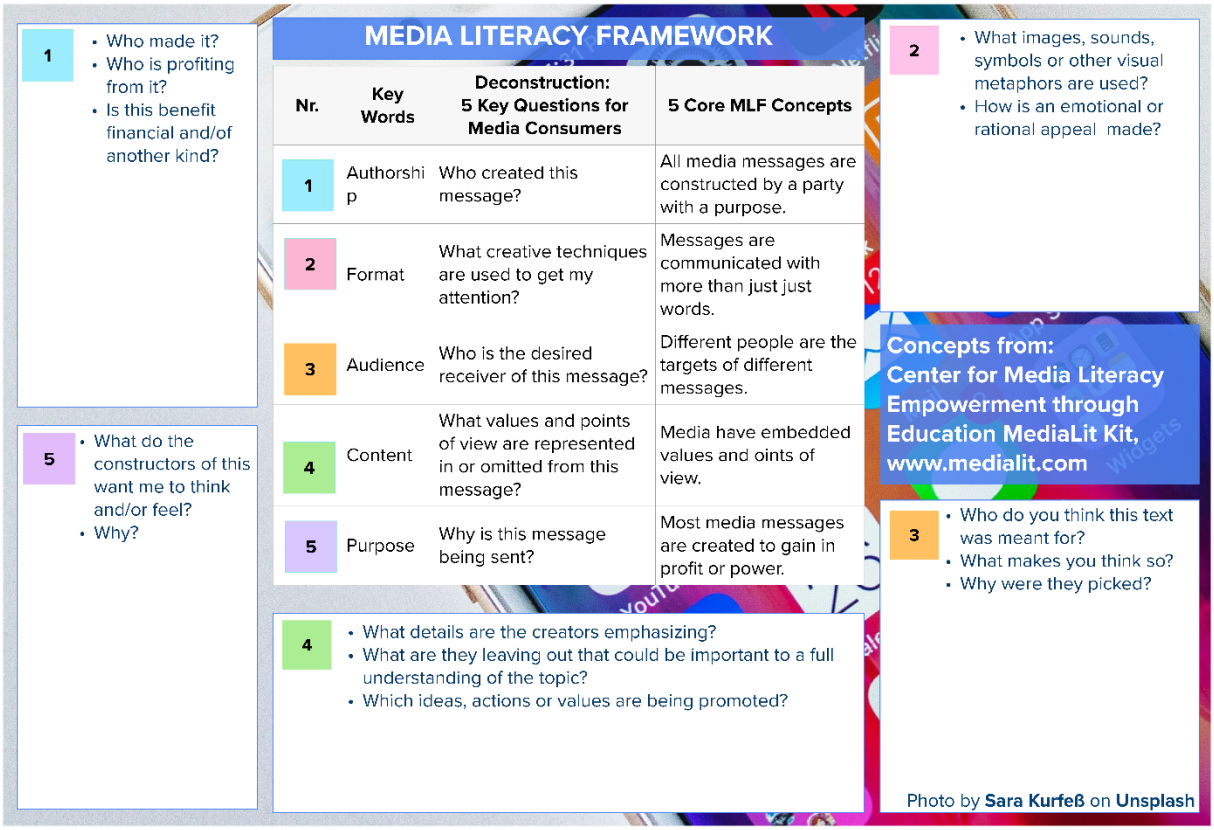
Source: Author design with background image by rawpixel.com, © rawpixel ltd., 2023.

2.6.4. The Media Literacy Framework

The purpose of this segment was to counter the toxicity of social media with the directness of actual social interaction while at the same time gaining familiarity with an established framework for developing media literacy, learning how key questions can help students avoid being manipulated by disinformation, advertising, and other media campaigns.

Using the free teaching materials available from the Center for Media Literacy as a basis for instruction (Thoman, Jolls, 2003), students were introduced to five parts of all media construction and deconstruction: authorship, format, audience, content, and purpose. Different examples of media communication in the form of videos and case studies were examined in class and included as links in the template along with key concepts related to each of the five parts as indicated in Figure 7. During the joint interviews, students could either discuss any of the examples they had covered or analyse a new piece or pieces of media selected with their Ukrainian counterparts according to the five-part framework.

FIGURE 7. TEMPLATE 4, JOINT INTERVIEW TEMPLATE 4



Source: Author design with a background image by Sara Kurfeß on Unsplash, 2023.

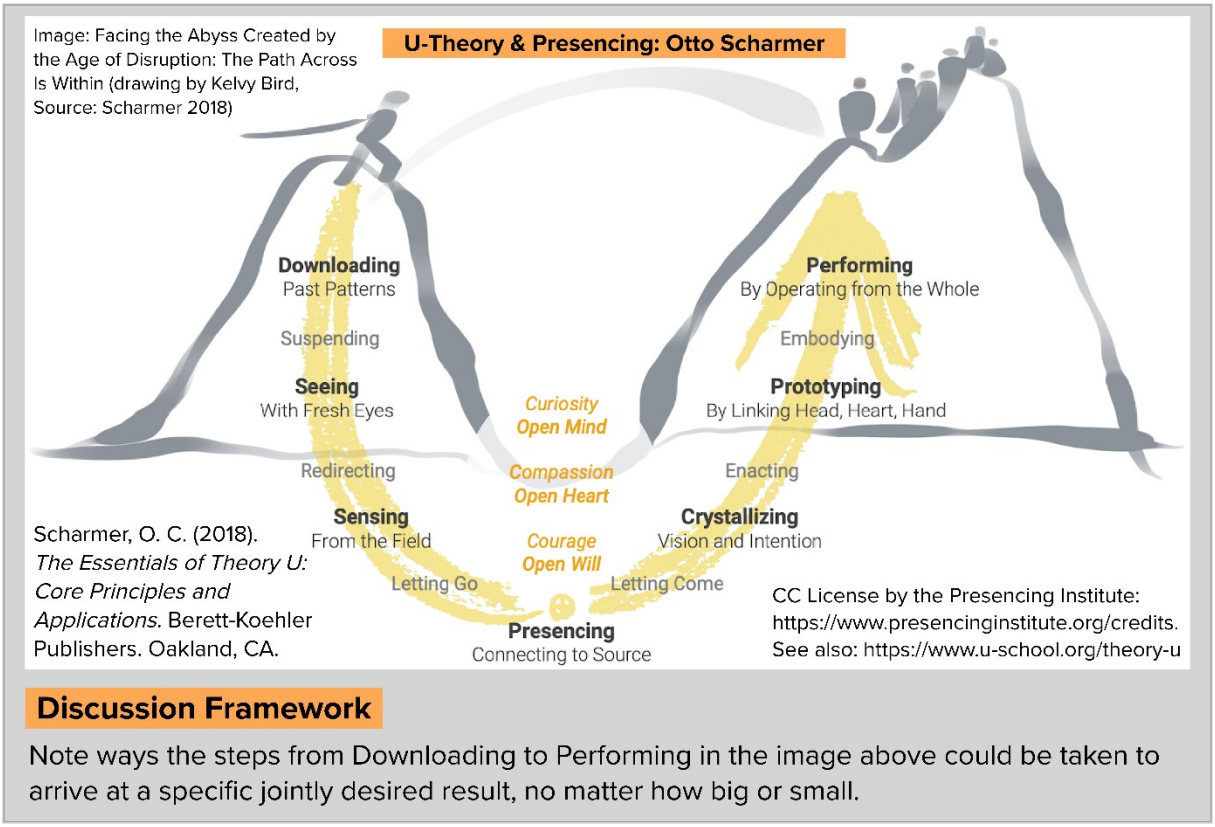
2.6.5. Theory U

Theory U was chosen as a method for working effectively with others to identify and achieve shared goals. In an interview with philosopher Yermolenko, its author discussed it as a powerful leadership method in times of disruption (Yermolenko, 2023). Its emphasis on giving voice to and attending to the "head" (knowledge), "heart" (interests) and "hands" (ability to act under current conditions) of every stakeholder made Theory U a kind of *roter Faden* ("red thread" in German) or sub-theme running throughout the DBP.

Students were introduced to some of the key steps in the process it proposes from getting from a present "no one wants" to a destination that develops out of the articulation of the needs and objectives of the stakeholders. Given how many global voices have been claiming the right to speak for Ukraine over the course of the present conflict, the authors felt it to be an especially appropriate tool to place into the heads, hearts and hands of Ukrainians themselves, especially as future leaders of their country.

As part of the step on "Seeing with fresh eyes" seen in Figure 8, each side was asked to prepare a virtual tour of their respective lives using PowerPoint or similar format to help their counterparts form a view of their world based on the perspectives of its own inhabitants. As this was the last interview, it also offered a way for students to give a guided tour to the international exchange partners they had gotten to know over the semester and conclude the exchange with powerful visual impressions.

FIGURE 8: TEMPLATE 5 JOINT INTERVIEW TEMPLATE SECTION



Source: Design www.presencinginstitute.org with author notes, 2023.

2.7. Results and Discussion

2.7.1. Student results and reactions from Ukraine

Table 1 presents the survey data collected from the students of Vasyl Stefanyk Precarpathian National University (VSPNU), Kyiv School of Economics (KSE), and Odesa I. I. Mechnikov National University (ONU).

From the results displayed and the statistical analysis conducted, the following key findings were identified:

TABLE 1. EVOLUTION OF DBP COMPETENCIES IN KSE, ONU AND VSPNU STUDENTS

Competency	Entrance Survey: Before first call	Entrance Survey: After First call	Positive Change	% Positive Change
Knowledge	2.50	3.43	0.93	37.14
Interest	3.00	4.21	1.21	40.48
Sense of empowerment	2.44	3.50	1.06	43.59

Source: Own compilation/calculations based on Microsoft Forms Digital Bridge Project VSPNU entrance survey, 2023.

The findings indicate that on a 1-5 scale, students rated their knowledge and interest in topics studied and discussed as well as their sense of empowerment to have increased by roughly 40% after just one joint interview.

The KSE and ONU students chose to volunteer on an extra-curricular basis. Therefore, the following discussion is based mostly on the observations of the instructors that incorporated the DBP into their course at VSPNU.

Participation in international projects can have a profound impact on people's preconceptions by challenging, expanding, and altering their existing beliefs and perspectives. Building personal relationships with individuals from different backgrounds fosters a deeper understanding of their lives, values, and experiences. One of the benefits of the DBP is humanising people who were previously seen through stereotypes or generalisations. The results when compared demonstrate that the evolution of VSPNU students' pre-existing beliefs about their foreign peers reaches 3.68 out of 5 points. Being exposed to other cultures and communicating with people with diverse backgrounds presupposes adopting a more culturally relativistic perspective. The students need to keep in mind ethical considerations, which are essential in decision-making, especially when discussing potentially sensitive topics.

Thus, 50% of VSPNU students agree that being tolerant and open to other people's opinions contributes to successful intercultural communication. All the students claim that during the joint interviews, they tried to avoid controversial uncomfortable topics and radical opinions. The Ukrainian students reported that all the discussed issues within the project were appropriate and did not cause them any emotional distress. Most Ukrainian students have experienced the devastating effects of the Russian-Ukrainian war. Therefore, if students chose to discuss political issues amongst each other, especially with individuals directly affected by the conflict, sensitivity and respect for their experiences was required.

One of the aims of the DBP was to focus on understanding the human impact of conflict rather than getting into political debates. Sometimes discussing their experience during joint interviews was described as therapeutic by the Ukrainian students to process and share their feelings. In the context of a war involving Ukraine, it is crucial to recognize that any nation could find itself facing similar circumstances. The impact of conflict extends beyond borders, influencing geopolitics, economies, and, most importantly, the lives of individuals. Wars can disrupt the fabric of societies and create a ripple effect that touches nations far beyond the immediate conflict zone.

The VSPNU students claim that the DBP has influenced their emotional well-being in a positive way (3.85 on a 5-point scale). During the interviews, the students were equipped with mental frameworks that enhanced their problem-solving abilities, making them feel more seen, heard, and appreciated as individuals. This encouragement empowered them to tackle challenges as active citizens. During such interviews emotional well-being contributes to effective communication. In a friendly atmosphere students express themselves freely, understand others, and engage in constructive dialogue, which is vital in international collaborations.

During international joint projects, it is necessary to be mindful of cultural differences and avoid imposing one's own cultural perspectives on the conversation. Hence, it is crucial to understand that different cultures may have varying ways of processing and discussing major events. 36% of the respondents feel that cultural differences are one of the most important challenges in such projects, and both sides should be respectful and mindful of diverse cultures.

The topics of joint interviews honed the critical thinking and systems thinking skills of Ukrainian students, revealing, and changing fundamental beliefs that uphold systems. Systems thinking is an approach to problem-solving and understanding complex phenomena by examining the interactions and relationships between the components of a system which considers the system rather than focusing solely on its individual parts (Midgley, 2003). Systems thinking principles closely align with the presencing concept proposed in Theory U, the framework for leading profound change developed by Dr. C. Otto Scharmer. It promotes holistic understanding, interconnectedness, future orientation, and the recognition of collective

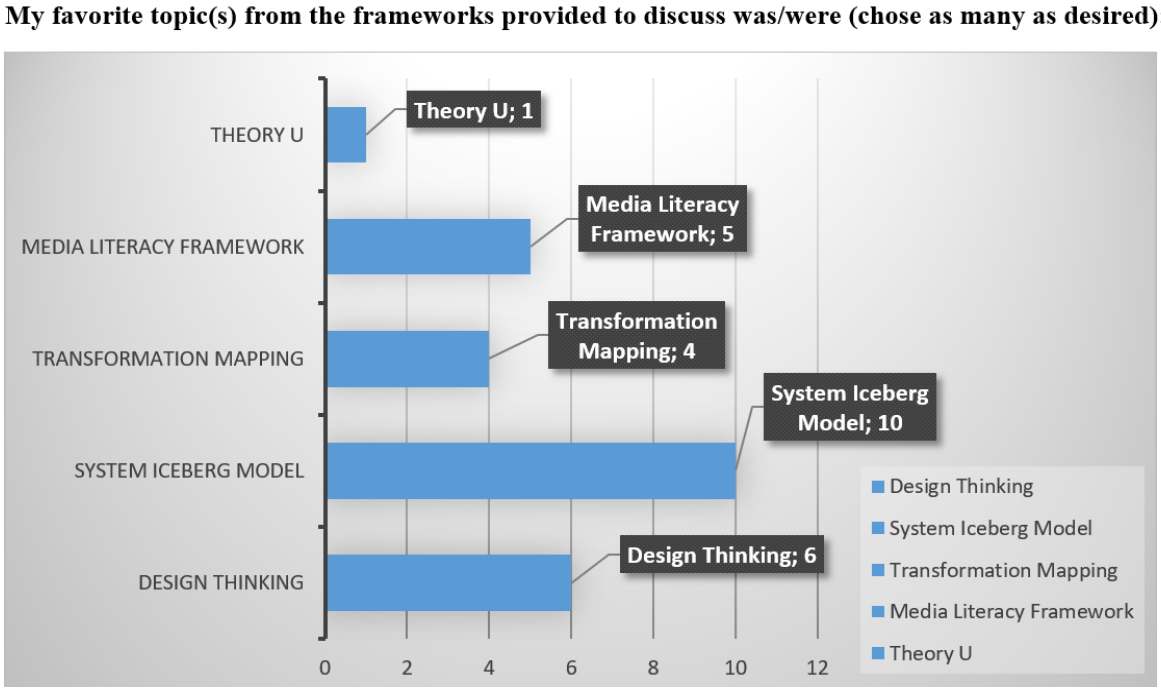
intelligence, reinforcing the importance of a systemic and transformative approach to change (Scharmer, 2018).

Systems change is always consciousness-based and is related to getting out of one's own bubble and "co-sensing" – immersing yourself in new contexts that matter in your situation and that are unfamiliar (Scharmer, 2018). During the interviews, the students went beyond habitual ways of thinking and operating, exploring emerging future possibilities and how to align actions with a more sustainable and desirable tomorrow. While answering the question 'What values, priorities, and abilities are crucial for democracy to remain functioning?' 71% of VSPNU respondents point out critical thinking skills, media and civic literacy, freedom of expression, and open-mindedness.

Media literacy is important for facilitating effective, culturally sensitive, and ethical communication during international projects, and one of the aims of the DBP was to empower students to critically engage with media content and navigate diverse perspectives. In the exit survey the students claimed that the DBP has greatly influenced their understanding of media literacy and ability to critically evaluate information from various sources (3.85 points on a 5-point scale).

The Systems Iceberg Model (chosen by 10 respondents), Doughnut Economics and Design Thinking (chosen by 6 respondents), and the Media Literacy Framework (chosen by 5 respondents) were the most appealing and compelling topics for the students among the suggested ones for joint interviews (including Doughnut Economics and Design Thinking, the Systems Iceberg Model, Transformation Mapping, the Media Literacy Framework, and U Theory) as seen in Figure 9.

FIGURE 9. VSPNU EXIT SURVEY, FAVOURITE TOPICS QUESTION



Source: Microsoft Forms Digital Bridge Project VSPNU Exit survey, 2023.

Most respondents considered Design Thinking and the Systems Iceberg Model important for a deeper understanding of complex systems and the exploration of assumptions and beliefs that shape them. Joint interviews within the DBP allowed for the exchange of knowledge and

expertise beyond borders. While answering the question about important values for the future of democracy (Figure 10), VSPNU students claim that it is crucial to prepare future leaders who excel in personal skills and contribute to social cohesion:

FIGURE 10. VSPNU EXIT SURVEY, VALUES QUESTION

For democracy, an essential foundation to employment as it is known in many countries, to remain functional, the values, priorities and/or abilities I find most important to encourage in schools in democratic countries are:

"Critical thinking, moral and ethical values"
"Work on emotional maturity, geopolitics and other intercultural subjects"
"I find it crucial to encourage values such as critical thinking, civic responsibility, and respect for diversity. Prioritizing an education that fosters open-mindedness, ethical decision-making, and a sense of social justice is essential. Additionally, nurturing abilities such as effective communication, collaboration, and information literacy are key to preparing individuals for active and informed citizenship in democratic societies."
"I believe that fostering principles like civic engagement, respect for diversity, and critical thinking is vital for democracy, which is a necessary precondition for employment in many nations. It is crucial to place a high priority on education that promotes moral reasoning, social fairness, and open-mindedness. Furthermore, developing skills like information literacy, teamwork, and effective communication is essential to empowering people to participate actively and intelligently in democratic societies."
"In schools, children should be taught to listen and hear their interlocutors, schools should also develop students' emotional intelligence and their ability to empathize and analyze situations."
"School should prioritize fostering civic literacy, critical thinking skills, and open dialogue. Cultural understanding, empathy, and cooperation are essential to nurturing socially responsible citizens."
"Equal opportunities, information literacy, civic responsibility"
"Critical thinking, coming up with creative ideas for the solution to modern problems, basic IT knowledge, teamwork and friendly atmosphere."
"Be open to ideas."
"Responsibility, empathy, politeness"
"Friendly atmosphere during classes"

Source: Microsoft Forms Digital Bridge Project VSPNU Exit survey, 2023.

Open questions gather qualitative data, involving descriptions of feelings, opinions, impressions, etc. (Tomal, 2010). These elucidated student thoughts and feelings and gave a voice to the participants. The above-mentioned open-ended question in the survey helped to gauge the students' perceptions of the values, priorities and abilities that need to be encouraged in democratic countries. By means of the qualitative analysis of the responses above, the authors concluded that the students believed that it is necessary to foster an environment in schools that respects civic literacy and diversity (9 mentions), promotes empathy (3 mentions) and collaboration (5 mentions), information literacy and critical thinking (7 mentions), contributing to the meaningfulness of every person's life.

2.7.2. Student results and reactions from Germany

Table 2 presents selected survey data collected from the UE students.

TABLE 2. EVOLUTION OF DBP COMPETENCIES IN UE STUDENTS

Competency	Entrance Survey: Before first call	Entrance Survey: After First call	Positive Change	% Positive Change
Knowledge	2.89	3.19	0.30	10.28
Interest	3.00	3.59	0.59	19.82
Sense of empowerment	2.22	2.86	0.65	29.27

Source: Own compilation/ calculations based on Microsoft Forms Digital Bridge Project UE entrance survey, 2023.

The German students' percentages were about half those of their counterparts, perhaps due to the lack of perceived threat to their ability to pursue these competencies in other ways. However, the upheaval their online classmates were experiencing in real time was an impactful reminder that the opportunity to develop and exercise critical thinking skills and personal agency is not something to be taken for granted.

As mentioned earlier, one of the key propositions within Theory U is that to achieve meaningful change, stakeholders should engage on three levels: with their heads (knowledge), hearts (interest and empathy) and hands (using their power to act) (Scharmer, 2018). An indicator of how the roughly 20% increase in interest in the topics discussed in the teams seen in Table 2 came to pass in some participants after just one meeting is reflected in the UE student reflection seen in Figure 11.

FIGURE 11. UE STUDENT REFLECTION POST INITIAL JOINT INTERVIEW

"…Before the interview started I was not aware that emotions could be indirectly exchanged across Teams. My first … were based on my first impression…of compassion and sadness. I personally think what these two emotions caused were the compassion that I had with them. People who are the same age as me, but who go through more in life. The best way to react in that case is to show compassion and back strength. Giving them a feeling, being not alone is in my point of view a key not just for this interview but also for humanity."

Source: UE student reflection, 2023.

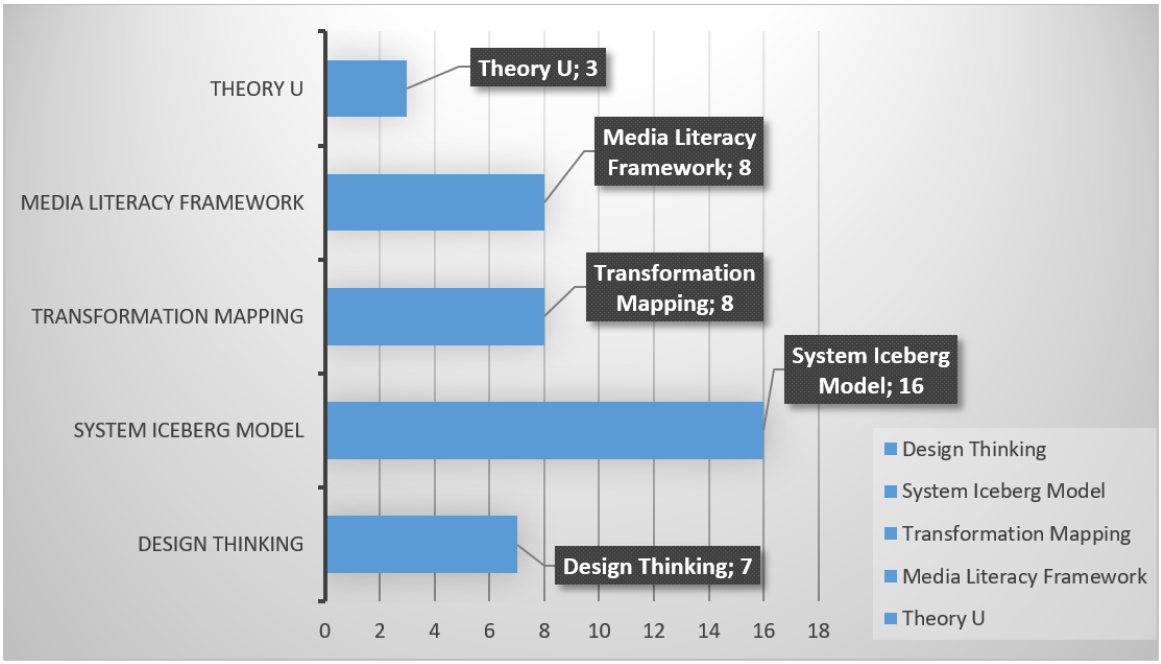
This quote indicates how the interviews themselves gave UE students the sense that they were already doing something positive actively by listening to their Ukrainian counterparts after completing the first session, whose template was chosen as a favourite by 7 respondents or 27% of UE students. It also reflects the evolution of UE students' pre-existing beliefs as seen in their average rating to the exit survey question: "Over the course of the exchange, my thoughts/feelings/preconceptions about the people I met and country they are from evolved because of The Digital Bridge Project (1 not at all to 5 a lot)" of 3.95.

The DBP provided insights from a first-person perspective of young students experiencing history in the making. In answer to the exit survey question about whether the DBP experience affected their sense of well-being on a scale of 1 (not at all) to 5 (a lot) in terms of providing their "heads" with knowledge of others' first-hand experiences directly as well as of mental frameworks that can help them analyse problems more effectively, and/or helping their "hearts" feel more seen, heard, and appreciated, and/or by encouraging them to use their "hands" to handle challenges actively at school, work, and/or other life situations with more tools, confidence and skills, students responded with an average rating of 3.37.

The Systems Iceberg Model was chosen by 16 respondents, or 67% of the UE students as one of their favourite topics, as indicated in Figure 12. Reasons for their choices included in the responses to the follow-up question, "This is because…" on the exit survey included the observation by one student that it was "easy to understand and practical for better explaining events." Another noted that the Systems Iceberg Model made it "interesting to recognize a pattern of things that are first seen as lonely events", while a third participant wrote that "the Iceberg Model can always be reused for almost all problems and is very helpful." For one UE student, it was "useful for understanding complex systems by showing visible components above the waterline and emphasising the importance of understanding hidden factors below for comprehensive analysis."

FIGURE 12. UE EXIT SURVEY, FAVOURITE TOPICS QUESTION

My favorite topic(s) from the frameworks provided to discuss was/were (chose as many as desired):



Source: Exit survey in Microsoft Teams, 2023.

A demonstration of the power of students to apply the Systems Thinking Iceberg Model in original ways can be seen in the group that chose to use it to assess overeating, as seen in Figure 13, in which one participant describes how it encouraged them to go beyond addressing issues in a superficial manner.

FIGURE 13. UE STUDENT REFLECTION POST SECOND JOINT INTERVIEW

"To go further into the topic, we now asked ourselves in the second phase of the iceberg model what happened over a long period of time that led to our overeating. We came to the conclusion that regular overeating and generally unhealthy eating occurs in many people who have the problem.

But that wasn't enough for us, which is why we went deeper into the iceberg and asked ourselves in the third phase, "What is influencing the repeating behaviour?" In our opinion, this is often triggered by reasons such as stress, the feeling of being alone, which also damages our mental health and makes the problem all the worse. Other emotional problems can also be the cause, such as family problems or a separation of any kind."

Source: UE student reflection, 2023.

Key benefits of the Transformation Mapping topic, which was chosen as a favourite by 8 respondents, or 30% of UE students, were seen to be how it made it "easy to create connections and make them visible" and that it was "a possible system for a job later."

Regarding the Media Literacy Framework, also chosen by 30% of UE students as a favourite topic, UE students noted that "it is quite helpful for your daily life" and that "people often get wrong information, so now we all have a better understanding for what information we get from different kind media." One group member stated that after exposure to this framework, "in the future…[I] will definitely look at media with a more critical eye than before."

Theory U, selected by 3 of the 27 respondents, or 11% of the UE students, as a preferred topic, was described by one student as beneficial because it can help a civic, school, or professional leader become "a facilitator of positive change, leading the team towards a future they collectively envisioned."

Throughout the semester, UE students were asked to think about what a good course featuring "important conversations" would include if they were designing it for their country. This was the backdrop to the exit survey question on values. The responses are noted in Figure 14.

FIGURE 14. UE EXIT SURVEY RESPONSES, VALUES QUESTION

For democracy, an essential foundation to employment as it is known in many countries, to remain functional, the values, priorities and/or abilities I find most important to encourage in schools in democratic countries are:

"Freedom of expression, acceptance of other opinions"
"Respect between everyone, forgive mistakes, improving education and social skills"
"Human is human"
"To talk about your own country"
"Understanding, respect, communication, acceptance"
"Teaching students about other politics"
"View into other political systems and countries"
"Speaking in front of others, correct speaking, system thinking, and understanding of how to deal with problems and tasks."
"Correct speaking and language"
"Free thinking"
"To keep democracy and jobs strong, schools should focus on teaching things like thinking critically, being involved in the community, and including everyone. These values help prepare people for active roles in democracy and successful careers."
"Values such as respect, empathy, understanding and tolerance should be at the top of the list. If pupils ostracize or bully other pupils, this should be severely sanctioned, as we can only make the world a better place together. No one has ever won a war alone."
"Prepare students not only academically but also socially and ethically"
"To learn something and give another person some advice"
"Participation of people and honesty"
"The respect for each other, may it be in person or in their opinion and beliefs"
"International exchanges"
"Being united, honesty and transparency from all of us"
"Equal rights and independent thinking"
"Look at things from different perspectives"
"The freedom to do what you want"
"A respectful handling"
"Think outside the box"

Source: Microsoft Forms Digital Bridge Project UE exit survey, 2023.

What the responses from both Germany and Ukraine share is an affirmation that conversations about important things have a place in educational institutions, and that their role should be to create better prepared future leaders by fostering individual abilities to question and reflect deeply as well as social cohesion.

One concern educators may have when considering organising their own DBP is that exposure to their counterparts in a country that is experiencing conflict directly may be "too much" for their students. To address this possible issue, attendance at the meetings can be made voluntary, and students can opt to cover each framework on a stand-alone basis for their grades.

One UE student went so far as to encourage educators to be fearless in organising global projects in general, as seen in Figure 15, in the pursuit of such exchanges.

FIGURE 15. UE EXIT SURVEY STUDENT RESPONSE

> "Teachers should not be put off by online events with international students, nor should the students, of course. We should also see the positive things in it, such as the exchange with people who live so far away from us and who have gained different experiences that may help us move forward or make us think. Just the fact that we HAD to speak to them in English all the time was a really good experience and might make it easier for us to approach people on our next vacation outside of Germany."

Source: Microsoft Forms Digital Bridge Project UE Exit Survey, 2023.

2. Conclusion

The Digital Bridge Project provides a tangible way for instructors to build cognitive resilience in both countries experiencing conflict and in those who wish to strengthen their ability to prevent it or address it more effectively, be it at work, in school, or in a broader social context. Participants exchanging their experiences and aspirations contributed to a collective knowledge base and shared commitment to building together what Scharmer identifies as the emerging future (Scharmer, 2018).

The DBP has proven itself to be applicable across a wide range of courses to develop critical thinking skills, knowledge, empathy and agency without dogma. Students can also employ it to organise international exchanges independently. Participants can increase their capacity to analyse information critically with the frameworks explored in the DBP. As demonstrated in the context of this case study, such a project can increase students' ability to articulate, develop and achieve their own ideas and desired changes by working with the three aspects discussed throughout the semester: head, heart and hands (Scharmer, 2018).

Perhaps the purpose of this learning experience is best described by a Ukrainian student who answered the question in Figure 14 by stating that "to sustain a functional democracy and support the principles underpinning employment, schools should prioritise fostering critical thinking skills to empower students to analyse information and engage in informed decision-making."

The responses from students in both countries demonstrate a prioritisation of values on enriched living experience and individual development as well as social well-being. As another Ukrainian student put it: "Ukraine and Ukrainians belong to Europe and share the same values as the common European citizen."

The instructors' goal was to encourage students to be engaged, empathic and active members of society who see their future as in their hands. Through the five frameworks and other DBP

aspects, the authors hope to inspire future users across the world to apply the model for inspiration and tools to help young people develop their own ideas and turn them into reality.

3.1. Implications

In terms of overall impact, one UE student noted on an Exit Survey response that "these frameworks have an effect on my critical thinking. I can understand my thoughts deeply and evolve simply for new ideas."

The DBP proposes that educators do not have to teach in a vacuum, but rather can function as facilitators, going from 'sage on the stage' to 'guide on the side' (King, 1993 and Morrison, 2014) and making their classrooms places where analytical frameworks are applied to real-life problems in ways that foster personal and academic development as well as social cohesion and dialogue.

3.2. Limitations and Future Research Plans

One of the starkest limitations of the DBP was the lack of reliable Internet connection during air raids. On occasion, due to these sudden alarms, the Ukrainian students had to evacuate to underground bunkers during the times the sessions were planned. However, the fact that so many clicked back into the meetings after a few minutes of getting resettled beneath the deep layers of concrete, albeit only with audio access, was a powerful reminder of both the literal, visceral threat to exercising critical thinking skills the students were experiencing, and of how much these meetings with their counterparts in the EU meant to them.

It is the authors' opinion that the experience of ordinary college-age students in Ukraine is severely underrepresented in Western media and that direct exchange is a potent counterpoint to potentially misleading narratives. In the future, the authors plan to share the invaluable, if unwelcome, knowledge they are acquiring in further exchanges, encouraging research with young people across the world.

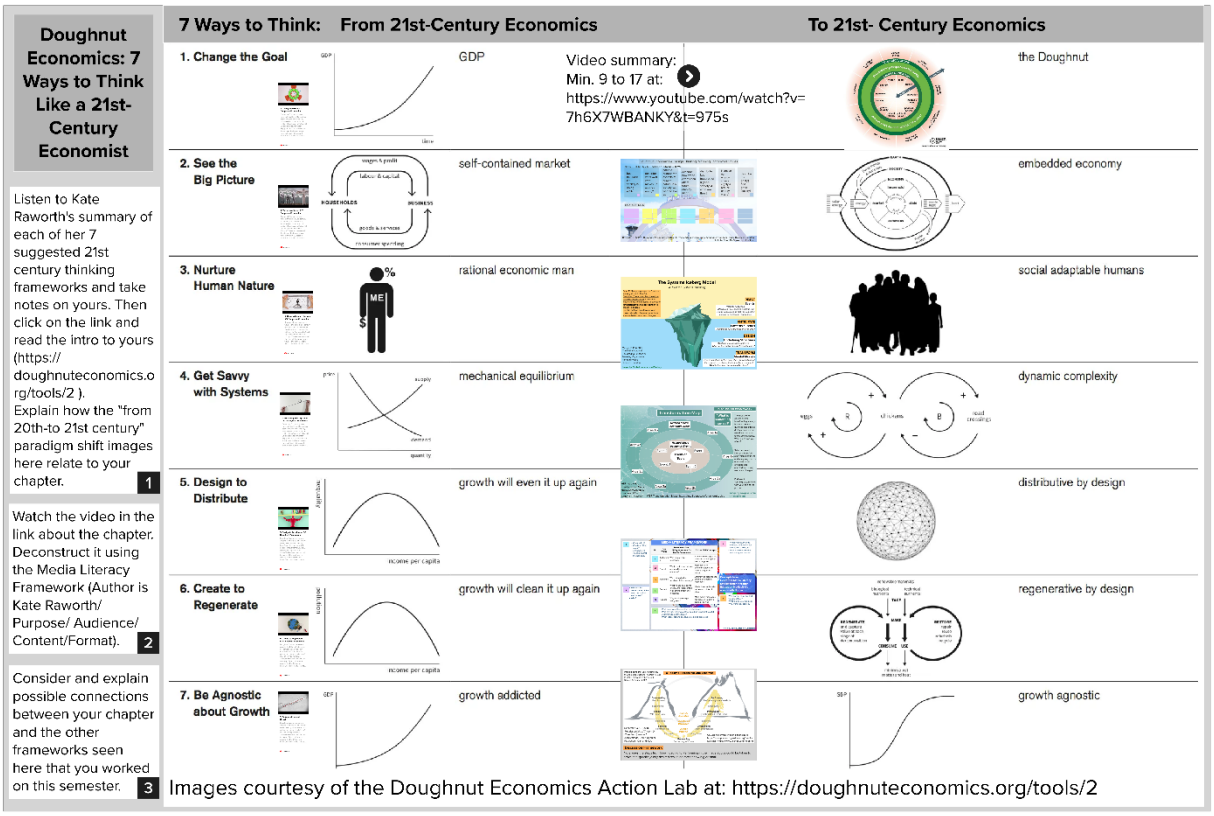
3.3. Further Recommendations and Development

Student suggestions for improving projects of this nature included leaving more time for more informal "breaking the ice" or "speed meeting" activities initially to help participants get to know each other as well as more time to chat freely on topics of their choice, both in terms of non-course related subjects and in terms of more co-decision-making power about the underlying frameworks covered in the project. These proposals touch on key aspects of the "Connection before Cognition" and "Taker to Maker Mindset" principles (Shtaltovna & Muzzu, 2021) promoted at the outset of the project and should not be overlooked in future iterations. Other participants suggested making the frameworks easier to use. This can be accomplished by adding more time before each interview on both sides to cover the framework concepts in more depth before and perhaps after each session.

In Germany, after all, five interviews were completed, a concluding discussion on Doughnut Economics was followed by a final class activity in which students were shown a portion of an interview with Kate Raworth (Hagens, 2023) in which she presented key concepts, and were then asked to read a segment and watch a short introductory video (Doughnut Economics Action Lab, 2020) on one of the seven proposed paradigm shifts in the book (Raworth, 2015), after which they were to present on their section and indicate how any one or more of the mental frameworks they had studied during the DBP related to it, as seen in Figure 17. Educators seeking to provide their students with a big-picture view of the interrelationship between the

mental frameworks selected as pillars of the DBP and key concepts from Doughnut Economics are recommended to consider adding additional "closure" to the project in this manner.

FIGURE 17. UE CONCLUDING REVIEW AND REFLECTION



Source: Author design with images by Doughnut Economics Action Lab & rawpixel.com (© rawpixel ltd.), 2023.

The development of an online platform for educators building their own digital bridges with other institutions could facilitate organisation. As well as providing a "matchmaking" service for interested parties, curricular planning modules could be uploaded based on the frameworks, readings, slides, and visual collaboration formats employed. Future practitioners could add their adaptations to enrich and inspire a dynamic community.

Educators considering a DBP can help students benefit from the open-ended nature of its frameworks, related tasks, and interactive style by encouraging them to consider examples they wish to discuss with their partners before each meeting.

Interested parties are encouraged to contact the authors for more information about the templates, teaching materials and methods used to prepare for and conduct this project.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
Written informed consent to participate in this research was obtained from all the respondents, who were fully informed about the purposes of this research and how their responses would be stored and used.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp125-135

GILE Journal of Skills Development

Developing Employees' Critical Thinking Skills in Malta: Evaluating a Hypothetical Business Proposal

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Abstract

Critical thinking is considered one of the most significant competencies that employees need to develop in order for them to contribute to an organisation's success and productivity. The lack of professional development opportunities aimed at enhancing the critical thinking capacity of employees might be deleterious for organisations seeking to capitalise on this competence as a means of remaining innovative. By means of a conceptual case study of Thinkerly – a business-to-business (B2B) firm offering critical thinking training solutions in Malta – this article considers the firm's business idea, target customer segment, and competitive external business environment. The hypothetical business proposal analyses the internal and external factors affecting the firm's performance and evaluates the positioning, strategy and competitive advantage of the bespoke training firm. The primary objective of the conceptual case study is to indicate the main considerations a B2B company needs to take when developing critical thinking training in a specific context. To illustrate how any such proposal is likely to have its limitations, two of the models utilised in the design of Thinkerly's proposal are subjected to critique.

***Keywords/key phrases*:** critical thinking, professional development, bespoke training solutions, business-to-business, business proposal, higher-order thinking

1. Introduction

Recently, businesses in Malta have called for training initiatives aimed at developing employees' critical thinking skills (Malta Employers' Association [MEA], 2022). As a far better predictor of real-world outcomes than intelligence (Butler et al., 2017), critical thinking is considered a key cognitive ability that employees need to bank on in order to enhance their productivity, problem solving and creative output (Bednarz, 2013; Ejiogu et al., 2006; Sattar, 2018). For instance, Amine (2010) shows that the absence of critical thinking in the business sector can result in failure, this being a product of rigid thinking and the inability to apply critical thinking to processes and situations. In fact, even smart employees are fully capable of making serious mistakes if they lack the capacity to think critically (Butler, 2017). However, many businesses struggle to recruit employees that are equipped with this capacity (Taylor, 2010). This situation is not helped by the absence of bespoke training solutions focusing on the development of critical thinking within businesses.

This conceptual case study considers what such an initiative might consist of if a B2B company were to implement it in the Maltese context. For the sake of this article, this hypothetical company will be called Thinkerly. The article describes the company's target customer segment before analysing its competitive external business environment. After a SWOT analysis, the positioning of Thinkerly's business idea, its strategy and its competitive advantage are elucidated. Lastly, there is a critique of two of the models used in constructing this proposal. Readers interested in the professional development of employees with respect to higher-order competencies might find this exercise in speculative thinking useful because it foregrounds some of the considerations that need to be taken when developing specialised training initiatives.

2. Business Idea

Thinkerly is a firm that specialises in providing micro, small and medium-sized enterprises (SMEs) with training solutions focusing on the development of employees' critical thinking. The latter can be taught either via stand-alone courses or else by being integrated into the teaching of other content (Hatcher, 2006). Even though both approaches are effective (Abrami et al., 2015), Thinkerly uses the former given that it focuses on the needs of individuals who are already in employment and who have limited time for training. While critical thinking is given importance in many undergraduate and postgraduate business degree programmes (Critchley, 2011; Desai et al., 2016), not all employees within a firm are alumni of such a programme. In addition, critical thinking is a higher order function that requires careful nurturing if it is to be implemented successfully outside the educational domain (Lee, 2018). Hence, continuing professional development related to it is essential.

In line with the definition of innovation as something that not only consists of developing new services but also involves tapping new markets and bringing a service to new customers (Szirmai et al., 2011), the innovative nature of Thinkerly's services is constituted by the identification of a training gap that very few competitors are presently addressing in the Maltese context. Notwithstanding the fact that critical thinking is one of the most pivotal skills that organisations look for in prospective employees (Korn, 2014; World Economic Forum, 2016, 2020), at present many businesses are encountering difficulties when trying to find training solutions geared towards the development of critical thinking in their staff. This is where Thinkerly can step in.

3. Target Customer Segment

As a B2B firm, Thinkerly caters for the needs of SMEs in Malta by providing their employees with critical thinking training via face-to-face and online courses. Given the value that innovation has for the long-term success of SMEs in a constantly evolving operating environment (Brines et al., 2013), developing the critical thinking capacity of employees working for such companies has the potential to give the latter a competitive edge (Copley, 2013). Even though Thinkerly can service the training needs of an entire firm's employees, its main customer segment consists of decision-makers and management. This is because the domain-specific expertise and experience of such individuals help them to perform better on business-related critical thinking assessment (Dwyer et al, 2015). Moreover, the critical thinking needs of those occupying top tier positions within an organisation are greater than those further down the hierarchy (Ramazani & Jergeas, 2015). One of the reasons for this is that critical thinking has a positive effect on strategic thinking (Çiçek & Naktiyok, 2013).

4. Competitive External Business Environment

In this section, STEEP Analysis and the Five Forces Model (Porter, 1979, 2008) are used to examine Thinkerly's competitive external business environment.

4.1. STEEP Analysis

STEEP Analysis allows Thinkerly to identify opportunities, threats and problems that might have an impact on the purchasing patterns of its clients throughout the lifetime of its relationship with them (Ryals, 2008).

4.1.1. Socio-cultural

In 2022, active SMEs in Malta amounted to 58,279, which is an increase of 2,426 business units over the previous year (National Statistics Office [NSO], 2023). This is an indication of a healthy business environment for Thinkerly's clients, with certain sectors registering the highest number of SMEs: wholesale and retail trade; automotive repair; professional, scientific and technical activities; construction; and real estate (NSO, 2023). This information helps Thinkerly to hone its targeting efforts.

4.1.2. Technological

Thinkerly's provision of follow-up training via an online platform is sensible given that many SMEs in Malta are positively disposed towards technology and leverage it to gain a competitive advantage. In fact, all SMEs use IT systems and the internet in day-to-day operations, and a significant proportion of them (53% of microenterprises and 84% of small and medium business units) have invested in a web portal that they use to enhance their brand and communicate information about their company (Malta Communications Authority [MCA], 2021). In addition, when compared to other EU countries, Malta places towards the top of the list with regard to the use of online commerce and marketing by businesses. In fact, 46% of Maltese SMEs use the internet to advertise their products or services, and 71% make use of social media for promotional purposes (MCA, N.D.). Around 53% are keen to invest in the digital (Malta Chamber of SMEs, 2021).

4.1.3. Economic

Even though the vast majority of Maltese SMEs are investing, their expenditure on employee training lags far behind that of their EU counterparts. In fact, training is an investment priority for only 8% of SMEs in Malta when compared to 13% in the rest of the EU (Grech, 2018). This is obviously a disconcerting fact for a firm like Thinkerly, whose services are exclusively training oriented. However, Maltese SMEs are eligible for EU grants through a €51 million scheme aimed at enhancing their competitiveness (PwC, 2023). These grants can be spent on personnel related costs.

4.1.4. Environmental

In line with the EU's (2018) Green Action Plan for SMEs, Thinkerly can promote its courses as a means of enabling firms to think critically about how they can operate in a more sustainable and resource-efficient manner while still performing better financially (Confino, 2014). Research shows that SMEs can successfully compete in fluctuating market conditions while being committed to sustainable development by adopting sustainability-oriented innovation practices (Klewitz & Hansen, 2014). These practices can be identified and implemented as a

result of employees engaging in critical thinking given that this cognitive function facilitates problem solving when people are encouraged to think about corporate social responsibility (Deer & Zarestky, 2017).

4.1.5. Political

The Maltese government is highly supportive of SMEs. Through one of its agencies, Malta Enterprise, it provides firms with various kinds of technical and financial support. With respect to employee training, for example, an incentive called Knowledge Transfer addresses skill shortages by providing employees with training and re-skilling in relation to the skill requirements identified by industry (Malta Enterprise, 2023a). Another two schemes run by Malta Enterprise (2023b) – Skills Development Scheme and Family Business Support Services – can also be used by Thinkerly's clients. Hence, it is important for Thinkerly to be registered as a training provider with Malta Enterprise.

4.2. Five Forces Model

The Five Forces Model facilitates the analysis of an industry's competitive forces and the identification of opportunities and threats. Porter (2008) argues that the configuration of the five forces is not the same for all industries; hence, the most powerful competitive force/s shapes an industry's profitability and becomes the most significant driver behind strategy formation. Strong forces have the potential to depress Thinkerly's profits whereas weak forces can be seen as opportunities (Hill & Jones, 2010).

4.2.1. Threat of Entry

While currently there are no private training firms specialising in critical thinking in Malta, it is possible that universities and other organisations seek to establish a foothold by designing courses and materials that they can sell to SMEs. An example of this might be the University of Malta's M.A. in Creativity and Innovation. It is also possible that international training providers might seek to make inroads in the Maltese market. Once Thinkerly manages to become an established firm with a portfolio of bespoke training solutions, the main barriers to entry faced by potential competitors include brand loyalty and absolute cost advantages. If Thinkerly becomes associated with critical thinking training, then it would be difficult for a competitor to encourage clients to switch to a new brand. Similarly, once Thinkerly develops a repertoire of top-notch services via the expertise of leading scholars and sell these services to multiple clients, then competitors would find it challenging to match its lower cost structure.

4.2.2. Power of Suppliers

Thinkerly's suppliers consist of scholars who specialise in critical thinking. Their research helps the company's trainers to develop courses and materials for use with SMEs. While most research is made available via subscription-based academic journals, some research is commissioned by Thinkerly from the institutions that employ these scholars. The number of scholars that Thinkerly can consult when developing its services is not very small; hence, the company can afford to keep its costs down and increase the quality of the work it commissions. However, there is the risk that the institutions that these scholars work for might decide to enter the industry and compete with Thinkerly directly by offering their own training solutions.

4.2.3. Power of Buyers

At present SMEs in Malta interested in developing the critical thinking capacity of their employees lack purchasing power because there is virtually no competition to Thinkerly's services. Hence, the company can afford to set prices that cover its costs and make a tidy profit. However, once competitors enter the market, switching costs for SMEs are fairly low so they can force Thinkerly to reduce its prices.

4.2.4. Threat of Substitutes

While Thinkerly prides itself on delivering training specialising in critical thinking, SMEs can choose to train their staff by means of courses focusing on similar competencies (e.g., creativity). In Malta, such services are already available and while they are not widely used by SMEs, Thinkerly's success might encourage competitors to market their courses more broadly. This would obviously dampen the company's profits by forcing it to reduce its prices.

4.2.5. Rivalry Among Competitors

Currently, Thinkerly's specialisation means that it enjoys a monopoly in the training industry in Malta; this allows it to determine prices. However, if the level of demand is sufficiently enticing, competitors might be encouraged to develop similar services and help to push down prices. At the same time though, growing demand would eventually reduce rivalry since there would be enough customers for Thinkerly and its competitors.

5. SWOT Analysis

The SWOT Analysis below is meant to enable Thinkerly to determine which internal and external factors inhibit or enhance its performance (Leigh, 2010).

TABLE 1. SWOT ANALYSIS

Strengths	**Weaknesses**
• Thinkerly delivers bespoke training solutions focusing on critical thinking; • Its courses and materials are based on cutting edge research conducted by established scholars; • Training is business-related rather than generic; • Training is provided via face-to-face and online formats; • The company is the only one that specialises on critical thinking in the Maltese market.	• SMEs might see Thinkerly's highly narrow specialisation as limiting their choice of training options; • The company relies on the research produced by scholars who work for other organisations; • Recruiting trainers and consultants who are sufficiently competent to deliver the company's high-quality services might be challenging; • The company's services rely on intellectual property that can easily be replicated by others.
Opportunities	**Threats**
• Thinkerly's specialisation allows it to monopolise business training related to critical thinking in Malta; • The lack of competitors enables the company to determine prices;	• International and local organisations might compete with Thinkerly by offering critical thinking training services to SMEs;

• The wide choice of scholars to choose from when it comes to research allows the firm to reduce its costs; • Once the firm establishes its brand, it will be difficult for competitors to gain market share; • Government and EU support for SMEs is ample and this can be exploited by Thinkerly; • The number of SMEs in Malta is big enough for the firm to build up a client portfolio; • Positive dispositions towards technology and concerns with sustainability amongst SMEs can be harnessed by Thinkerly when designing its courses.	• If the company's intellectual property is stolen, it is difficult and expensive to seek legal recourse in court; • Training solutions focusing on similar competences can start being marketed to SMEs more aggressively by competitors; • Thinkerly's suppliers might decide to become its competitors; • Increased competition will push down prices; • SMEs do not invest enough money in employee training; • If government and EU support were to be reduced, SMEs would have less money to spend on Thinkerly's services; • The number of SMEs that fold every year is significant.

Source: Own compilation.

6. Positioning, Strategy and Competitive Advantage

Thinkerly positions itself as a training provider that specialises in developing the critical thinking needs of business clients. Even once it expands its repertoire of services to address training needs related to a select few other competencies, Thinkerly will continue to position its brand and services as quality driven, specialised and business oriented. Its chosen corporate strategy is influenced by how it positions itself, which in turn contributes to its competitive advantage.

Thinkerly's growth strategy can be explained by means of Ansoff's (1957) framework. It is envisaged that in its first year of operations the company will adopt market penetration as a strategy. This will allow it to increase its market share for its training services by winning over new clients within its chosen segment, i.e., SMEs in Malta (Keig & Eliot Brouthers, 2013). In order to implement this strategy, Thinkerly will need to make adequate investments in branding and brand identity (Thomson & Martin, 2010).

After its first year, Thinkerly will adopt market development as its growth strategy. This will enable it to increase its sales of training services in markets beyond Malta. At the same time, by not catering exclusively for SMEs, its customer base can be expanded by targeting new customer segments through the repositioning of its services (Campbell & Craig, 2005). An effective marketing plan would be vital to the success of this strategy.

If Thinkerly manages to secure a large enough market share, it can choose to grow even further by using product development as a strategy. This will allow it to develop new training services for its existing customer segments; for example, selling SMEs and other businesses courses related to analytical and creative thinking, which are the most important skills for employees at present (World Economic Forum, 2023). This strategy implies making significant additions to Thinkerly's repertoire of services so as to extend its life cycle and facilitate its uptake by its clients (Thomson & Martin, 2010). Thinkerly will have the option of either seeking to develop

new services on its own or else in conjunction with a university or other organisation with relevant R&D expertise (Keig & Eliot Brouthers, 2013). The acquisition of another specialised training provider might also be feasible if Thinkerly secures the required capital.

In line with Porter's (1980) Generic Strategies Model, Thinkerly will seek to differentiate itself from the competition by underscoring the quality and bespoke nature of its critical thinking training services. In this way, it will be able to charge premium prices. Initially, in terms of its scope, Thinkerly will focus on the SME segment only before selling its services to other kinds of businesses. However, this will still equate to the focused differentiation position. Thinkerly's attainment of competitive advantage will be a result of its strategic choice to differentiate itself from other training providers along the lines of specialisation and quality of service, and by limiting its scope to business clients.

7. Critique of Models

The Five Forces Model (Porter, 1979, 2008) used above to assess Thinkerly's competitive external business environment has a number of limitations to it. Managers using this model might feel that it fails to explain what actions they can take with respect to any of the five forces that are impinging on their business (Grundy, 2006). It might also lead them to think of an industry as having fixed boundaries rather than fluid ones (Grundy, 2006). The fact that the model is not adequately related to STEEP factors and that it employs economic jargon might also be problematic for managers (Grundy, 2006). According to Lee et al. (2012), one of the reasons why the model has not gained sufficient attention from practising managers is due to its "difficulty in operationalization; that is, its analytical power is limited in that the overall competitive condition as well as the degree of each force cannot be quantified" (pp. 1783–1784). The Five Forces Model has also been criticised for being antiquated in the social era given that companies wishing to win over clients and be profitable have to focus on selling distinct items in quick response to direct customer feedback (Merchant, 2012).

The Generic Strategies Model (Porter, 1980) used above to explain how Thinkerly's strategy will allow it to achieve competitive advantage has also been the subject of critique. For instance, it has been pointed out that companies do not need to choose one strategic position over another since in some cases they can pursue all of them in the same industry (Cunningham & Harney, 2012). In addition, the model assumes that strategy implementation runs quite smoothly, but in reality there is a big difference between choosing a specific route to competitive advantage and actualising it in practice (Cunningham & Harney, 2012). Datta (2010) claims that the strategies are excessively broad and that the model presents a restricted view of differentiation. Similarly, the assumed mutual exclusivity of differentiation and cost leadership has long been criticised (Raisch, 2004).

8. Conclusion

The owners and managers of SMEs place a significant amount of importance on critical thinking, valuing it for its capacity to bolster the resilience of a business unit (Kotsios, 2023). Given the current absence of bespoke training focusing on the critical thinking capacity of employees working for SMEs in Malta, it is worth examining what this might consist of as a business proposal. While Thinkerley's budget and sales pitch are missing from the above proposal, the main purpose of the conceptual case study was to evaluate the main considerations

that a B2B company would need to take when seeking to develop training solutions focusing on the enhancement of employees' critical thinking in the country.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp136-140

GILE Journal of Skills Development

Research Writing, Peer Review and Academic Publishing: Benefits of Individual, Institutional and Journal Mentoring

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Abstract

Writing academic research papers acceptable for journal publication is not often taught in graduate programs let alone in undergraduate studies. Students and early career researchers (herein known as students for both categories) usually undergo a trial-and-error period to learn how to navigate the publication submission process—a long and daunting task. However, E-mentoring, or electronic mentoring, has proven to be beneficial for students. E-mentoring opportunities can be found by a pro-active student seeking out published researchers in their fields and requesting if they can mentor them. Colleges, universities or other academic institutions may have formal or informal research or peer review programmes, internship, field experience or practicum courses for-credit. Academic journals may also host student mentoring programmes for peer review, editing, and/or research writing hands-on experiences.

Mentoring students in research writing and the journal publication process should start as early in one's academic career as possible. Age or academic status should not be seen as a deterrent or disadvantage when mentored by a patient, experienced and enthusiastic research mentor. Such e-mentoring experiences can be offered by individual researchers, at the institutional level or from the academic journal—the latter being the most ideal model worthy of advocacy and replication.

***Keywords/key phrases*:** academic publishing, research writing, peer review, student, e-mentoring, early career researcher

1. Introduction

Writing academic research papers acceptable for journal publication is not often taught in graduate programmes, let alone in undergraduate studies (Baird, 2021; Kane, 2022). Junior scientists have reported being "abandoned" by their academic supervisor or advisor (herein known as advisor) (Li, 2019). When rare feedback is given, it was often delayed, too vague, or differed greatly from the student's perspective leaving, the student discombobulated. Students were typically left confused after completing their master's thesis or doctoral dissertation

(Kane, 2022). Students reported having been left in the dark and were left to navigate the publication process through trial and error (Li, 2019).

2. Benefits of Research E-Mentors

Individual research mentors working remotely, or within a research collective, group or institutional setting, and/or a part of a formal academic journal mentoring programme can positively influence students in academic publishing (Donald, 2023; Mahayosnand et al., 2021; Mahayosnand & Bermejo, 2022). However, to develop a successful mentor-mentee relationship, there is a need for quality mentors experienced in the need(s) of the mentee, in this case: research writing and academic publishing (Donald, 2023; Mahayosnand et al., 2021, 2021; Zografou & McDermott, 2022). This section shares some successful academic publishing mentor-mentee programmes.

2.1. Individual Research E-Mentors

Finding individual mentors involves self-confidence, creativity and diligence. A student may search social networks like LinkedIn for like-minded professionals who have their desired experience (Ely, 2021). Then, the student would have to pitch themselves to see if they or any of their colleagues are interested in mentoring a student (Ely, 2021; Sandø & Stærkind, 2021). A student may also find a research assistant or intern posting at their university, college or through membership of a professional association (Ely, 2021; Mahayosnand et al., 2021).

A successful mentor-mentee relationship happens when guidelines, communication (mode and frequency), and expectations are set at the beginning of the relationship (Donald, 2023; Ely, 2021; Mahayosnand et al., 2021; Mahayosnand & Bermejo, 2022). This assures that the relationship is mutually beneficial.

2.2. Institutional Research E-Mentors

2.2.1. College/university field experience, internship credit class to be matched

The pandemic of Covid-19 caused colleges and universities to be in lockdown during the 2021 spring, summer and fall semesters. During this time, a mentor was approved as field experience advisor for Providence College's mandatory bachelors Health, Policy and Management field experience programme and the University of Maryland School of Public Health's Masters in Public Health internship proctor (Mahayosnand et al., 2021; Mahayosnand & Bermejo, 2022). Three students were e-mentored for their mandatory 150-hours per semester to conduct public health research projects for 3-4 course credits. Students were not guaranteed authorship. At the beginning of the semester, the students and mentor agreed to school-approved outcomes, and signed contract agreements of their expectations, duties and responsibilities. In signing the contract, students agreed to having read and agreed to the difference between research acknowledgments and authorships, a non-disclosure agreement, the timeframe and milestones of their research project and more.

In the undergraduate programme, the course instructor matched the mentor with the students, and the mentor had the opportunity to interview and accept or reject them. For the graduate programme, a student saw an intern posting in a professional association in which they were both members. The graduate student worked with their programme advisor to approve the mentor to be their internship on-site advisor. During those semesters the mentor was located in Gaza, Palestine and the students were located in Providence, Rhode Island and the DC

metropolitan area, USA. All research work and writing were conducted remotely. The three students were co-authors and acknowledged in multiple peer reviewed publications.

Sarvenaz et al. offer numerous resources for students to build quality research mentorship relationships, such as a table of thematic problems that may occur and how to solve them (Sarabipour et al., 2022). . They list organizations offering mentors to early career researchers as well. Mahayosnand and Bermejo (2022) also share helpful tips for mentees and mentors from both perspectives: student and mentor.

A programme worthy of duplication is the National Institute of Health National Heart, Lung, and Blood Institute (NHLBI)'s Summer Institute Program to Increase Diversity (SIPID) and Programs to Increase Diversity and Individuals Engaged in Health-related Research (PRIDE) (Rice et al., 2017). The programme offered a live 2–3-week summer research workshop, provided a mentor to communicate throughout the academic year via phone, email or webcams, and hosted a mid-year and annual meeting. The programme evaluation showed that the most beneficial skill the students developed was manuscript and grant writing.

2.2.2. Institution peer review course

The ability to conduct quality peer reviews is a crucial research skill to develop. One medical school shared their 15-week curriculum in which they developed a 22-day cycle for each student to submit their peer review to the journal (Schmidt et al., 2023). The faculty member shared that this programme was a success, due largely in part to the close relationship with the journal's editors. This institution-journal relationship helped remedy the peer reviewer deficit that the journal was experiencing. One of the medical students published a Letter to the Editor regarding this course as the sole author (Murtha, 2023). In an undergraduate biology course, students were guided through the peer review process by publishing their reviews of current biology Preprints (Otto et al., n.d.).

2.3. Academic Journals Providing Formal E-Mentors

Formal journal student e-mentoring programmes are positioned to be the most ideal model because journals have board members, editors and peer reviewers all dedicated to the journal's success to be potential e-mentors. While students eager to publish in specific journals provide the target audience to fill the gap of needed peer reviewers; students can also offer new and fresh perspective and technical-savvy advice to the journal (Northidge et al., 2014; Schmidt et al., 2023).

2.3.1. Academic Journal offering Research Writing and Mentoring Programmes

A long-standing Mentor Writing Programme is hosted by the Clinical Journal of Oncology Nursing (CJON) (Tariman, 2009). This programme helps new writers be matched with a published nurse mentor with the goal to take the mentee's idea and create a published article.

2.3.2 Academic Journal informal mentoring programme but prize award – encouraging mentor-mentee joint paper submission

Nurse mentors are committed to creating the next generation of nurse authors by assisting them to publish in academic journals or nursing websites and blogs (DeMeyer & DeMeyer, 2018). DeMeyer and DeMeyer noted the *American Journal of Nursing (AJN)* annual Nurse Faculty Scholars/AJN Mentored Writing Award (American Journal of Nursing, n.d.). This award encourages registered nurses (RN) of any level of practice (such as clinical staff or faculty

member) to become first-authors. To qualify for the award, the RN must not have been published before in a peer review journal and must work with a mentor as a co-author.

3. Conclusion

Mentoring students in research writing and the journal publication process should start as early in one's academic career as possible. Age or academic status should not be seen as a deterrent or disadvantage as seen in the examples of the Health, Policy and Management bachelor students gaining remote research field experience for-credit and the undergraduate biology students publishing peer reviews as Preprints. When an ideal match is created or when a mentor-mentee pair troubleshoots their problems with mentoring training aids available to them, the relationship can be mutually beneficial on a professional and personal level. A patient, experienced and enthusiastic research mentor has proven to be most beneficial to the student. E-mentoring opportunities allows matches to occur without geographical boundaries. Such e-mentoring experiences can be offered by individual researchers, at the institutional level or from the academic journal—the latter being the most ideal model worthy of advocacy and replication.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp141-145

GILE Journal of Skills Development

Life is Too Short to Be Serious All the Time: Donald Duck Presents Unconventional Motivations for Publishing in Academia

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Abstract

In this food for thought article, we introduce the 'Donald Duck Phenomenon' to consider ten unconventional reasons for publishing in academia. These include (i) symbolic immortality, (ii) personal satisfaction, (iii) a sense of pride, (iv) serious leisure, (v) cause credibility, (vi) altruism, (vii) collaboration with a friend or family member, (viii) collaboration with a hero, (ix) conflict or revenge, and (x) for amusement. The article was inspired by the lead author's social media search for a co-author with the surname 'Duck'. Through LinkedIn, the lead author, Associate Professor William E. Donald, who is based in the UK and specialises in Sustainable Careers and Human Resource Management, found a collaborator, Dr Nicholas Duck, based in Australia and specialises in Organisational Psychology. While the collaboration may appear somewhat 'quackers', per one of Donald Duck's famous phrases, "Life is too short to be serious all the time, so if you can't laugh at yourself then call me… I'll laugh at you, for you". We hope that this article offers some interesting insights, particularly for academics at the start of their scholarly journey, and acts as a way to stimulate conversation around unconventional reasons for publishing in academia.

Keywords/key phrases: academia, collaboration, Donald Duck, motivation, publishing

1. Setting the Scene

Anyone involved in academia will be familiar with the phrase '*publish or perish*', whereby the sustainability of an academic's career relies on their ongoing ability to publish. Consequently, some examples of conventional motivations to publish are a) requirements for a qualification or grant, b) career advancement and reputation, c) knowledge dissemination, and d) the ability to demonstrate teamwork and global impact via collaborations.

However, the main focus of our food for thought article is to consider some of the more unconventional motivations for publishing in academia, which we term the 'Donald Duck Phenomenon'. We propose ten examples: (i) symbolic immortality, (ii) personal satisfaction, (iii) a sense of pride, (iv) serious leisure, (v) cause credibility, (vi) altruism, (vii) collaboration with a friend or family member, (viii) collaboration with a hero, (ix) conflict or revenge, and (x) for amusement.

We conclude by highlighting the intrasectionality and intersectionality dimensions to raise awareness of such occurrences among Early Career Scholars (ECRs) and our other colleagues.

2. The Donald Duck Phenomenon

We present unconventional motivations for publishing in academia, which have received minimal attention to date. Humorously, we have dubbed these motivations the 'Donald Duck Phenomenon'. The authors invented the term while preparing this current 'food for thought' article. The lead author with the surname 'Donald' thought it would be entertaining to collaborate with a co-author with the surname 'Duck' to call out the popular animated Disney character, Donald Duck. After eighteen months of searching, the lead author connected with the second author via social media, and an international collaboration was formed between scholars in the UK and Australia. Somewhat serendipitously, one author specialises in Sustainable Careers and Human Resource Management, while the other specialises in Organisational Psychology. This article raises awareness of unconventional motivations for academic publishing and allows the authors to fulfil their unconventional motivation to create the amusing citation "Donald and Duck (2024)". We now present ten examples of motivations that, taken together, inform the Donald Duck Phenomenon, a collection of 'unconventional' phenomena that motivate academics to publish.

2.1. Symbolic Immortality

According to the Terror Management Theory (Greenberg et al., 1986), individuals unconsciously seek cultural endorsement and symbolic artefacts (e.g., publishing a novel) to provide a sense of symbolic immortality. In other words, publishing can give us a legacy beyond our lifespan.

2.2. Personal Satisfaction

Satisfaction occurs when motivation aligns with personal values (Ryan & Deci, 2000). In line with Self-Determination Theory, alignment with personal values increases our intrinsic motivation towards goals because they are meaningful to us. For instance, academics may prefer to publish applied rather than theoretical works if they value real-world impact.

2.3. A Sense of Pride

At a personal level, individuals may feel a sense of pride in seeing their name and work published, which can function as a motivator for subsequent publications, also called *Authentic Pride* (Tracey & Robins, 2004). In contrast, individuals who feel a sense of pride without a precipitating event, called *Hubristic Pride*, expect accolades without effort. Both authors of this article believe they are primarily motivated by the former rather than the latter.

2.4. Serious Leisure

Stebbins (1992, p. 3) defines Serious Leisure as

> *The systematic pursuit of an amateur, hobbyist, or volunteer activity that participants find so substantial and interesting that, in the typical case, they launch themselves on a career centred on acquiring and expressing its special skills, knowledge and experience.*

Serious leisure can help an individual improve self-perceived employability, enhance workplace well-being, and manage high stress levels (Donald & Nimmi, 2023; Nimmi & Donald, 2023). Serious leisure offers a strong motivator to publish through a hobby or voluntary capacity rather than for career advancement or income generation.

2.5. Cause Credibility

Publishing can help to draw attention to a cause and give it more credibility. For example, the lead author often publishes opinion and policy articles (as a side project to his main area of research), making a case for hybrid conferences (e.g., Donald, 2022; 2023; Green & Donald, 2023) because, as a housebound and disabled academic, he is excluded from valuable spaces of knowledge exchange when conferences are conducted in person only. The motivation for publishing such articles is to highlight the issue and call for change.

2.6. Altruism

A scholar might spend significant time supporting and co-authoring with early career researchers because it is gratifying to see the development of such colleagues during the process and the substantial impact that the publications can have on their career trajectory.

2.7. Collaboration with a Friend or Family Member

Another unconventional motivator for publishing in academia might be the opportunity to collaborate on a piece with a friend or family member. The collaboration process might be the primary motivator rather than the specific topic of focus or the choice of publication outlet.

2.8. Collaboration with a Hero

We all have our academic hero(s). Collaborating can offer a rewarding experience and be a strong motivator for publishing together. However, if the experience is less rewarding, as per the adage '*Never Meet Your Hero*', this can represent a demotivator.

2.9. Conflict or Revenge

Motivations do not always have to be of pure intent. In line with the Dark Triad Theory (Paulhus & Williams, 2002), there can be sinister and manipulative motivators for publishing, such as ongoing one-upmanship with another academic. The outcome can be a continuing cascade of publications driven by the need to manipulate, coerce, or fulfil narcissistic needs rather than the pursuit of knowledge dissemination. Naturally, neither author condones such behaviour. Yet, it is an all too common occurrence that plays out in the shadows of academia.

2.10. For Amusement

Sometimes, the motivation to publish is driven by the opportunity to amuse the authors and/or their readers. We distinguish this from publishing with ill intention (e.g., fake news or disinformation) because the content undergoes peer review and is written with integrity.

3. Concluding Thoughts: Intrasectionality and Intersectionality

The ten examples of unconventional motivations to publish in academia do not necessarily occur in isolation. Instead, intrasectionality occurs when two or more unconventional motivators coincide. For example, this article draws on personal satisfaction (through concluding an 18-month search by the lead author for a co-author with the surname Duck, and amusement (the potential for a citation of "According to Donald and Duck (2024)". Additionally, intersectionality occurs when one or more conventional motivators and one or more unconventional motivators coincide. For example, in addition to these two unconventional motivators, we incorporate a conventional motivator of knowledge dissemination.

To conclude, we invite you to consider what other unconventional motivators drive you and your colleagues to publish beyond those in this article. Most importantly, we encourage ECRs and other colleagues to find joy in their endeavours, as life is too short to be serious all the time.

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Declaration Statements

Conflict of Interest
The authors report no conflict of interest.

Funding
The authors received no financial support for this article's research, authorship, and/or publication.

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp146-150

GILE Journal of Skills Development

Cultivating Resilience in Part-Time Doctoral Students

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Abstract

In an increasingly competitive world, master's degrees are becoming the new common educational currency, leading to a markable increase in the number of students pursuing Professional Doctorates to stand out, boost their professional standing, and increase their income. The rise of Professional Doctorates is eclipsing the growth of traditional PhDs, and the academic intakes of the future look to be built of part-time professionals, who must also balance additional stressors such as family and personal life and their day-to-day careers. As such, this author recommends academic institutes promote the skills of resilience to help part-time students manage day-to-day stressors and embark on a more successful doctoral journey. This is an opinion-based paper that utilises lessons learned from the author's own academic journey and the classic underpinning literature on resilience to recommend three sets of skills and mindsets that could help boost part-time doctoral students' resilience.

***Keywords/key phrases*:** resilience, doctoral students, skills, well-being, early careers.

1. Introduction

The global work environment is changing, and along with it, so grows the ever-evolving landscape of higher education. In 2021, the Higher Education Student Statistics Office (HESSO) revealed a staggering 51% increase in students pursuing master's degrees since 2016. Such increases have led the Institute of Education Sciences (2016) to proclaim that master's degrees are now perceived as the new bachelor's degree and are thus essential for standing out in a competitive workforce. With online learning now making education more accessible to broader demographics (Institute of Education Sciences, 2016), we are also seeing a consistent expansion in the number of students enrolled for Professional Doctorate degrees in Western countries (Kot & Hendel, 2012; Institute of Education Sciences, 2016). This trend is likely a result of students wanting to stand out further and distinguish themselves from an increasing pool of master's degree graduates. Scholars also note that students are pursuing Professional Doctorates to boost their income potential and enhance their professional status (Zusman, 2017) or fill a research gap from a practitioner perspective (Wellington & Sikes, 2006). However, as the number of Professional Doctorate places rises, scholars have found this comes at the expense of traditional PhDs (Jones, 2018). This would suggest that as Professional Doctorates become more common, a high percentage of the student population now consists of working professionals, studying alongside other commitments such as their day-to-day work and family life.

It is well known that doctoral-level studies are associated with high degrees of stress and burnout (Cornwall et al., 2019; Wellington & Sikes, 2006). For example, in their study of 152 post-doctoral students, Cornwall et al. (2019) found that participants experienced stress in the form of poor student-supervisor relationships, lack of communication, financial stress, and the overwhelming experience of transitioning into a doctorate. Older studies from Wellington and Sikes (2006) also highlighted the solitary nature of a doctoral degree. Considering the additional stressors that part-time students bear, including career demands, family responsibilities, and enhanced time constraints, it is reasonable to anticipate that these pressures will be experienced at an even higher intensity. Such dynamics have led to scholars calling for further research into the effects of stressors on doctoral students (Cornwall et al., 2019). Furthermore, the global environment has transformed at a staggering level these past several years. Part-time students will now have to juggle the traditional doctoral stressors alongside the lingering effects of the COVID-19 pandemic (Murphy & Turnbull, 2023), and the changing technological landscape, creating uncertainty about the future of work (Murphy, 2023). Thus, as the academic landscape continues to shift towards Professional Doctorates, likely to consist of working professionals, it becomes more imperative to delve into the nuanced motivations, challenges and personal traits which enable part-time students to succeed. This paper suggests that resilience theory could be applied to help build traits which enable part-time students to have a successful and enjoyable doctoral journey.

2. Resilience

Resilience is a topic that has garnered attention across a wide array of disciplines, from psychology to engineering. In historical underpinnings and classical studies, the psychological perspective on resilience believes that resilience can be learned through life experiences (Shin et al., 2002). Scholars in the psychological domain suggest that people with resilience can regain a positive emotional state after or during significant adversity (Garmezy, 1991; Kiziela et al., 2019; Luthans, 2002; Rogerson & Emes, 2008; Southwick et al., 2014), enabling a return to their desired functioning (McCray et al., 2016). Resilience thus enables people to recover their desired performance after trauma and maintain it over a period of time.

On a personal level, scholars have found that numerous variables contribute to building resilience, many of which could be considered necessary for doctoral studies. For example, Bandura (1982) found that self-efficacy, or a persons' ability to succeed, is a trait found in those with high resilience. Other scholars, such as Dias and Cadime (2017) and Werner and Smith (1992), spoke of how family and peer-support environments can deliver the emotional and supportive structures to guide people through adversity, and build their resilience. Such social structures can also be useful in providing opportunities to develop self-esteem and efficacy through taking on social roles (Elder & Caspi, 1987). Finally, scholars have also noted how active goal setting (Dias & Cadime, 2017), or a person's innate desire to achieve a goal (Resnick, 2014), can also build resilience. While further research is needed to enhance our understanding of doctoral students' resilience, traditional resilience theory could be used to recommend skills for part-time doctoral students to put into practice, aiming to succeed in the degree journey.

3. Recommendations

The below recommends a package of skills and mindsets for universities to help students put into practice in order to enable a successful and enjoyable doctoral journey. These

recommendations are based on the authors' own doctoral experience and from linking in lessons from resilience theory.

1. ***Foster Personal Resilience:***

a. Focus on building self-belief and motivation:

   i. Encourage students to cultivate self-belief by acknowledging their capabilities, celebrating current progress, and reflecting on past successes.

   ii. Foster motivation by envisioning the benefits of completing their doctoral degree and reinforcing a positive mindset.

   iii. Encourage students, where time allows, to share their work through posters, conferences, or publications to boost their self-belief and efficacy.

   iv. Encourage students to set short- and long-term goals within their doctoral journey and to monitor and celebrate success when each goal is accomplished. Thus, making the journey feel more tangible, structured, and achievable.

b. Create coping strategies:

   i. Encourage students to reflect and draw from past experiences of overcoming challenges to promote effective coping strategies for new challenges.

   ii. Emphasise stress-reducing activities such as regular physical exercise, creative hobbies, or interests to maintain mental well-being.

2. ***Strengthen Social Support:***

a. University Networks:

   i. Promote positive relationships with colleagues and students within the university, offering emotional and peer support during challenging times. Help students to build 'study buddies' within their cohort.

   ii. Help allocate mentors from previous doctoral intakes and have the students act as mentors of newer intakes to build a sense of community and cultivate self-efficacy and belief.

   iii. Promote extra-curricular events for students, such as peer study days, writing days, or study groups.

   iv. Promote stress management and mental well-being workshops within the university, and provide accessible materials focused on building resilience.

3. ***Supportive Supervisory Relationships:***

a. Encourage students to establish open and transparent communication with supervisors regarding needs and expectations.

b. Encourage students to digest and perceive feedback as a gift versus a necessary change in course, whilst being mindful of the other stressors existing in their professional and personal lives.

c. Encourage students to practice basic project management techniques to be able to adequately prepare their studies around supervisory meetings to ensure they receive the most benefit from the sessions.

4. Conclusion

As the work environment grows ever more competitive in the face of unprecedented technological advancement and an increasingly virtually connected world, the landscape of higher education evolves. Master's degrees look to be the new common currency in education, with more students now embarking on doctoral studies to stand out as practitioners and build their professional standing and income. With this rise in pursuit of professional Doctorates, it is likely that new intakes are made up of predominantly working Professionals studying part-time, alongside other family and work commitments. This group of students will be more susceptible to the risks of doctoral stressors, and, in this author's opinion, could benefit most from building increased skills in resilience. This paper suggests a number of ways students can focus on building such skill sets, alongside recommendations on how academic institutions can support part-time students. By empowering doctoral students with the tools and support they need, we contribute to the creation of a resilient community that fosters academic success and personal well-being. This paper is opinion-based and built on resilience theory. Thus, this author recommends future studies to contribute to and enhance our understanding of doctoral student resilience in our ever-changing world.

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Declaration Statements

Conflict of Interest
The authors report no conflict of interest.

Funding
The authors received no financial support for this article's research, authorship, and/or publication.

Ethics Statement
No dataset is associated with this article.

Open Access Agreement

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ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp151-156

GILE Journal of Skills Development

Re-visiting the Leadership Gap: How to lead in a task-focused work system?

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Abstract

The organisational focus on workplace automation is fuelling the evolution of the labour market towards task focused work systems, and an emerging gig economy. This evolution creates new demands on organisational leaders to introduce flexible and agile management techniques, whilst maintaining a strategic focus on upskilling and reskilling their employees for a digitalised world. We revisit our previous GJSD paper, "Mind the leadership gap", to further emphasise these aspects of the changing work environment and introduce 1. Their potential influence on organisational belonging, and 2. The resultant impact on leadership styles and skills. This paper presents a short synthesis of the complex challenges faced by leaders within such an operating environment. This is followed by four further proposals for the future research agenda along with two suggested research methods which enhance our previous call to action on the leadership gap.

***Keywords/key phrases*:** leadership, automation, task-focused work, gig economy, belonging, skills.

1. Introduction

In our previous paper (Murphy and Turnbull, 2023), we called for the need to revisit leadership theory in a post-pandemic world. Specifically, we discussed the new challenges faced by leaders caused by the remote working dynamic, and the changing generational demographics in the workplace, which combine to bring new needs and expectations to the leadership role. We highlighted knowledge gaps in the extant literature surrounding our understanding of how to lead remote teams and a multigenerational workforce, whilst protecting wellbeing and enabling performance. We suggested five areas of future research, calling for scholars to conduct studies into the new leadership practices and qualities needed in a post-pandemic world, and an exploration of how these practices could be cultivated. We now revisit this research agenda to cover another emerging topic, which is set to add further complexity and demands onto the role of leadership; the transition towards task-focused work systems.

2. Task-Focused Work Systems

Historically accepted models of Work Design and Job Enrichment Theory tell us that work is not designed into static jobs but is instead formed of dynamic tasks (Waschull et al., 2020). Employees traditionally work on these dynamic tasks in a sequence or combination that contributes to an over-arching organisational goal or strategy. However, the unprecedented organisational drive towards digital transformation is disrupting traditional ways of working, and causing a work design revolution that has never been seen before (Wiklund, 2022). Organisations in all corners of the globe are investing in automation to benefit from reduced costs, service improvements, and innovations driving competitive advantage (Murphy, 2023). Some scholars refer to this as the fourth industrial revolution (Bankins et al., 2023; Kwiotkowska and Gebczynska, 2022), otherwise coined industry 4.0 (Sony and Mekoth, 2022), or the second machine age (Bankins et al., 2023). Some scholars caution that the intersection of physical and digital worlds introduced by the fourth industrial revolution is already challenging our social systems (Rotatori et al., 2021). Whilst traditionally industrial manufacturing plants were the main beneficiaries of automated work, recent advances in Artificial Intelligence (AI) now see automation being driven across all industries (Garibay et al., 2023) including health care (Sampson, 2021), law and accounting (Spring et al., 2022), customer services, operations, aviation and aerospace (Dogan and Yildrim, 2022) and many others. Whilst historic technological revolutions have mainly impacted the work of lower-skilled, manual, blue-collar workers (Mondolo, 2021), the new capabilities of AI are also resulting in work changes for higher-skilled, white-collar workers (McGuiness et al., 2023).

In the workplace, automation very rarely automates the end-to-end responsibilities of a job role. Instead, specific tasks within that role are usually automated, with the remaining tasks being completed by a human, or new tasks being created (Garibay et al., 2023; Medici et al., 2023). As a result, scholars suggest we are moving towards a task-focused work system, where work is deconstructed into tasks, which can be assigned to both employees and machines (Boudreau and Donner, 2021). Boudreau and Donner (2021) suggest that, in future, employees will thus be seen as not holding a specific job but possessing skillsets which can be applied across the organisation on different tasks that complement them. They suggest that this will drive organisational change, whereby employees no longer sit under hierarchies but will be free-floating in a matrix design, and the role of leaders will evolve to manage these workers, assembling them and dissembling them to achieve goals across the different domains of the organisation. Leaders will essentially become large scale coordinators, and project managers, balancing skill profiles and capacity for the tasks needed across the organisation.

Some authors argue that task-focused working systems are already being implemented and fuelling the phenomena coined the ‘gig economy’. Braganza et al. (2022) define the gig economy as specific time-bound jobs, where multiple ‘gigs’ can be worked concurrently, utilising temporary or zero hours workers. Braganza et al. note how the rise of process automation leads to ‘task leftovers’ which lead to higher levels of gig work. The evolution of this gig economy, and increased reliance on temporary workers, is also resulting in a more flexible yet fragmented workforce (Van den Groendaal et al., 2023). Studies have shown that the rise of gig work can reduce social cohesion (Braganza et al., 2022) and destabilise employee trust and commitment to organisations (Van den Groenendaal et al., 2023). Therefore, one of the perils of a task-focused work system is the impact on social connectedness and the resultant feelings of organisational belonging. Leaders now carry an additional burden not only to

manage projects and teams, but also to enhance their social and humanistic skills to maintain employee connection and loyalty (Ashford et al., 2018). This increasingly individualistic working environment will also call upon leaders to consider fewer mechanisms of team-based motivation and increase the need for focused personal relationships (Ashford et al., 2018).

However, scholars have found that increasing a leader's effort to convey emotion often results in a reduced inclination to do so, thus transitioning the employee and leader relationship to a transactional state (Silard et al., 2022). This raises new concerns, since our previous paper in this journal confirmed that younger generations, such as millennials, now seek more personal, one-to-one relationships with their leaders, and reject older transactional forms of leadership (Murphy and Turnbull, 2023). Thus, to counteract the impact of feelings of organisational belonging in a task-focused work environment, it is clear that leaders will need to enhance their humanistic skills, such as their self-awareness, empathy, communication, and listening (Allen et al., 2021).

3. Future Research Agenda

It is evident from the research presented thus far that the transition towards task-focused work systems, and the gig economy, raise a new dynamic to the leadership gaps we discussed in our previous paper (Murphy and Turnbull, 2023). New questions now arise to further the future research agenda, such as:

1. *Organisational belonging:*
    a. How should organisations build and cultivate humanistic skills in leaders to drive organisational belonging?
    b. How should leaders apply these skills for different generational workforces?
2. *Maintaining motivation:*
    a. How should leaders maintain employee motivation in a task-focused work system, where the nature of work is fluid and ever changing?
3. *New working style skills:*
    a. What skills do leaders need to transition into a mass coordination and project management role?
    b. What are the methods in which they should balance skill profiles and capacity for the tasks needed across the organisation?
    c. How does this increase in complexity in a gig economy whereby workers may consist of a constant movement of non-contractual resources?
4. *Employee skillsets:*
    a. How do leaders encourage and maintain employee skillsets to suit the emerging fluidity of work?

3.1. Research Methods

As we suggested in our previous paper, we call for qualitative studies in the aforementioned research areas, to drive rich insight into the leadership skills needed in the new ways of working. We suggest scholars consider contributing to knowledge by conducting case studies in organisations to discover what is working well today, or what approaches are needed to build

said skills, and thus discovering practices which can be re-applied in other companies and industries. We suggest two research methods to accomplish this:

1. *Action Research* - Action research is a collaborative investigative process that involves individuals within an organisation who are intimately familiar with its operations. The primary objective of action research is to yield immediate impacts on the day-to-day functions of the organisation (Noffke & Somekh, 2011). While sharing similarities with conventional problem-solving approaches, the distinctive feature of action research is its focus on enhancing the situations experienced by the participants, rather than solely generating knowledge for its own sake (Brewerton & Millward, 2006). Proponents argue that this method enables increased socialisation along with the growth of participants' knowledge and ownership in improving a given situation or process (Noffke & Somekh, 2011). Furthermore, the active participation of "insiders" within the organisation supports change management processes and the adoption of recommended measures (Brewerton & Millward, 2006).

2. *Appreciative Inquiry* –Appreciative Inquiry has garnered attention historically for its successful application in facilitating organisational change (Coghlan et al., 2003), by drawing participants towards the positive images of the future (Michael, 2005). Appreciative Inquiry is a model that seeks to create energy and a sense of hope towards achieving that future, by discovering and surfacing the elements that are working well in an organisation today (Michael, 2005). It is in this unique way of looking at organisational challenges that Appreciative Inquiry draws its strengths, in that it does not assess causes and solutions of problems but envisions what the best future scenario might look like (Coghlan et al., 2003). This approach is routed in the social-constructionism epistemology and could be a useful tool to help construct the beliefs of participants in the organisation, towards recommending real change and creating buy-in.

4. Conclusion

As we have said before, the future of leadership is changing. Both scholars and practitioners need to address the newly emerging phenomena to ensure our leaders are armed with the right skills, and methods of skills development, to meet the task of leading the modern workforce. While the new fluidity of work will raise challenges for leaders and employees in maintaining organisational belonging, motivation and relevant skillsets, it will also create new job opportunities and diversify the day-to-day working experience for many. This paper has built on our previous call to action by furthering the future research agenda, and continuing practitioner discussion on the leadership gaps in modern organisations. We have presented a short synthesis and background to the emerging phenomenon of task-focused work systems and the gig-economy and recommended several research questions for scholars to consider in future studies. It is envisaged that these new research areas and approaches will drive new value for organisations through the output of organisational change recommendations, enabling executives and HR offices to train their leaders in the right way, and with the right skills, and better manage their employee pipelines.

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Declaration Statements

Conflict of Interest

The authors report no conflict of interest.

Funding

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

Ethics Statement

No dataset is associated with this article.

Open Access Agreement

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The corresponding author for this manuscript is Helen Turnbull who can be contacted by email via 1822392@chester.ac.uk.

ISSN 2732-3781 https://doi.org/10.52398/gjsd.2024.v4.i1.pp157-164

GILE Journal of Skills Development

Richard Almonte (2022). *A Practical Guide to Soft Skills: Communication, Psychology, and Ethics for your Professional Life.* New York & London: Routledge

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Browsing through job advertisements of recent years, one cannot help but notice that in numerous instances skills, such as communication, teamwork, problem-solving and cooperation among other similar abilities, collectively referred to as soft skills, tend to take precedence over more technical knowledge traditionally taught in vocational and higher education. Richard Almonte's book *A Practical Guide to Soft Skills: Communication, Psychology, and Ethics for your Professional Life* is an exemplary achievement, showcasing a field that is highly valued by employers, but somewhat neglected in post-secondary education. A published author and a renowned professor of marketing with a background in English and Education, Richard Almonte Phd, BEd is currently serving as the program coordinator of digital marketing at George Brown College in Toronto, Canada. His research interests lie in marketing communication, academic writing and soft skills.

His latest book under review here is divided into three parts with the first part covering the theoretical background, whereas parts 2 and 3 are fully devoted to the practical aspects of soft skills. The volume running to 178 pages is organized into 11 lucid, easy to read chapters which do not lack depth and novelty either. Serving as a general introduction to the book, Chapter 1 *Softs Skills in a Digital Age* guides the reader through the numerous perspectives the concept of soft skills can be approached from. On the one hand, it is generally agreed that it refers to the abilities that enable individuals to effectively interact with others and manage their emotions in accordance with the demands of their workplace.

On the other hand, it can be viewed as an extension of positive personality traits and habits that individuals already possess and practice. Additionally, soft skills can also be seen as part of a long history of "moral reform" movements, where one segment of society aims to improve another segment by addressing and enhancing what is perceived as problematic social behaviour. The chapter also addresses the questions of what employers and researchers think about softs skills, thus offering the readers a multi-perspective view to ponder upon. A particularly intriguing part is the consideration of soft skills within the framework of performative discourse. The author convincingly reasons that soft skills are "a series of words, gestures, and behaviours based on discrete pieces of culturally inflected knowledge, history, theories, etc. […] that together signal your competence in a given field" (p. 8). That said,

argument is made that soft skills should be regarded as a pool of knowledge which should emerge as a new academic field.

The next three theoretical chapters explaining how soft skills are rooted in ethics (Chapter 2), psychology (Chapter 3) and interpersonal communication (Chapter 4) prepare the ground for the practical aspects of the book. One way or another, these academic disciplines are concerned with preferable forms of behaviour, which is of immense importance to the successful practice of soft skills in the workplace.

To understand the true nature of soft skills, it is helpful to be aware of the central tenets of ethics discussed in Chapter 2. Simply put, ethics is focused on the appropriate conduct towards others with the objective of minimizing harm. The author makes a brief comparison between duty-based versus consequentialist ethics. According to duty-based ethics, it is the obligation of the individual to consistently demonstrate ethical behaviour, whereas consequentialist ethics claim that ethical behaviour leads to the greatest good in the world, as it aligns with the social contract; that is, a set of rules people have agreed upon for mutual benefits.

After exploring the normative theories of ethics, the author discusses some of the obstacles to acting ethically, arguing that despite the evident justifications for ethical behaviour, individuals often fail to act ethically in reality, due to egoism, futility and relativism. Egoism refers to prioritizing one's own needs over others, futility means that sometimes individuals see little purpose in acting ethically, whereas relativism urges individuals to recognize that others may value different behavioural norms. From theoretical ethics the reader is guided to applied ethics, which examines how ethical justifications and theories are put into practice in real-world scenarios. It holds particular significance in the fields of medicine and healthcare, where conflicting interests may arise. Business and organizational ethics also play a crucial role here, as it raises the question of whether a company's pursuit of profit should overshadow considerations of worker safety, environmental standards, and other ethical concerns. At the end of the chapter, the reader is also offered "a practical guide to making applied ethical decisions" (p. 35) in the form of a quick and easy to remember checklist.

As the academic study of human behaviour, psychology is also essential in understanding soft skills. Chapter 3 draws on influential psychological theories including learning and development theories, personality theories and social psychology. It is pointed out that a central goal in the study of psychology is to uncover truths about human behaviour and its underlying reasons mainly through observation and experimentation. A significant area of investigation in psychology revolves around understanding how we acquire and develop our behaviours. According to the social learning theory, much of our learning occurs through observing behaviours demonstrated by authority figures in our lives. Additionally, the moral development theory proposed by Kohlberg (1976) suggests that as people grow older, their moral compass evolves from pre-conventional to conventional morality, with some individuals even reaching post-conventional morality. In the pre-conventional early stage, typical of children, behaviour is interpreted in terms of consequences such as reward and punishment. The author borrows Collin's (2012) words to describe the conventional stage whereby "right behavior […] pleases or helps others and is approved by them", as usually seen by adolescents, whereas in the post-conventional stage a person "recognizes that sometimes individual rights are more important than laws or rules that seek to restrict them" (p. 40).

Personality theories provide insights into our behaviour by highlighting various traits that shape our personalities. Particularly influential in this regard is the "big-five model" including five personality traits, such as extroversion, agreeableness, conscientiousness/dependability, emotional stability, and openness. Studies have found that not only are these traits essential in numerous jobs, but they tend to be good predictors of future job satisfaction and performance. Another important dimension in understanding human behaviour and the ways we interact across social contexts, for instance in the workplace, is social psychology (Butler & McManus, 2014; Collin, 2012; Morris & Maisto, 2015).

The author also highlights the significant role of stress in influencing our ability to behave appropriately. While stress can sometimes be productive, it often leads to negative outcomes, such as anxiety, decreased productivity, and even health issues. The reader is introduced to various strategies that can be employed to cope with stress, such as direct, defensive and proactive coping mechanisms. However, it is also noted that when these strategies fail to address problematic behaviours, therapeutic approaches like insight therapy, behaviour modelling therapy, and cognitive behaviour therapy can help redirect the individual towards pro-social behaviour.

After exploring how soft skills are rooted in psychology, the author delves into the realm of interpersonal communication (Chapter 4), elaborating on its vital nature in human interaction due to its role in fulfilling social, physical, and instrumental needs and goals. Soft skills are also demonstrated through linguistic behaviour with the objective of enhancing the relationship between the interacting parties. Attention is drawn to mediated communication through the internet in the form of emailing, blogging and messaging, which is a relatively new domain of interpersonal communication with both positive and negative aspects. While social media has allowed users to stay connected with more people and more frequently, it has also heightened our sense of disinhibition, leading to more direct and oftentimes offensive communication through these channels.

The author introduces the notion of communication competence, a theory developed by Jack Gibb (1961) with the central tenet that competent communicators achieve their goals while simultaneously maintaining or improving their relationship with others. Another important concept in the chapter is communication climate, which refers to the emotional aspect of the relationship being either supportive or defensive. Further, the author discusses the types of messages which assist in creating a supportive climate, as well as those which are responsible for a defensive one. Recognizing that defensive dynamics such as negative communication spirals pose the biggest barrier to effective interpersonal communication, it is shown what language-based strategies skilled communicators can employ, utilizing Brown and Levinson's (1987) politeness theory to counter defensiveness and face-threatening acts.

In the second part of the book, the author covers the six soft skills that employers deem to be the most important. They are divided into outward-facing and inward-facing soft skills, also referred to as interpersonal and intrapersonal. The former is concerned with interactions with other people, whereas the latter pertains to the abilities of the individual to "contribute to adaptive behavior and productivity" (p. 116). Outward-facing soft skills include communication (Chapter 5), teamwork (Chapter 6) and customer service orientation (Chapter 7), while inward-facing soft skills comprise problem-solving orientation (Chapter 8),

productivity/work ethic (Chapter 9) and likability (Chapter 10). In each chapter, the author provides a detailed explanation of the soft skill in question and why it is important.

Chapter 5, focusing on communication, posits that effective communicators utilize writing, speaking and listening skills to ensure that the audience receives the messages successfully. Communication will be successful if it adheres to the well-established norms of a given genre, as different types of written or oral texts, such as e-mails, reports or presentations, among others, have their own formats, specific vocabulary, tone of voice, as wells as accompanying gestures to foster a positive relationship that minimizes any potential face-threats.

The author points out that employers prioritize effective communication as one of the most crucial soft skills for their employees due to its proven ability to enhance organizational effectiveness, provide a competitive advantage, and cultivate customer/client loyalty not only through traditional channels but also on the social media sites playing a pivotal role in organizational communication.

The chapter also touches on gestures that exemplify effective communication, including smiling, maintaining eye contact and nodding to indicate agreement. Similarly, using polite greetings when meeting someone and employing courteous language when performing such acts as requests, acknowledgements, agreements and criticism are all examples of language use that require the effective employment of soft skills.

Another important outward-facing soft skill is teamwork, discussed in Chapter 6, which is ranked as one of the top three skills by employers (Riebe et al., 2017). Within the framework of teamwork, the author lists several sub-skills: active listening, cooperation, conflict resolution and persuasion (Assessing 21st Century Skills). Based on Widmer and colleagues (2009), the author explains that one of the most important qualities of an effective team player is reflexivity, which refers to "the ability of each team member to adjust to changes" (p. 86). Reflexivity is also concerned with recognizing leadership and followership. An efficient team player should be comfortable in both positions; that is, being dominant, as well as following the instructions of someone else, as the assignment of roles requires, which may change from project to project. The author also points toward a large body of research that shows the ever-increasing significance of teaching teamwork skills, for instance, in business (Dunn et al., 2020; Hobson et al., 2014), medicine (Barton et al., 2018; Lerner et al., 2009) and engineering (Chromik et al., 2020; Long et al., 2017). In this endeavour, a variety of innovative methods are applied, such a modelling, gaming, and reflection. The chapter also discusses virtual teamwork, which has been a popular field of research in recent years. Researchers have explored what skill sets are required as compared to traditional teamwork in order to be potentially productive (Chromik et al., 2020; Long et al., 2017).

The final outward-facing soft skill, effective customer service orientation, is discussed in Chapter 7. This refers to the ability to be helpful and pleasant with customers. Employers rate customer service orientation as one of the most crucial soft skills for their employees due to its proven ability to foster customer loyalty and retention. With digital technology, traditional customer service situations, such as face-to face or on the phone interaction, are evolving to include technology-mediated service situations like chatbots and robotic interfaces. Employers, however, still emphasize the need for their employees to be service-oriented. Therefore, employees dealing directly with customers are advised to establish a connection by getting to know the person, maintaining a positive and friendly tone of voice, fulfilling the customer's

needs promptly and minimizing any delays in the process. Additionally, it is crucial to exhibit natural courtesy, politeness and helpfulness when interacting with customers/clients. Gestures, such as smiling, making eye contact, and nodding to show agreement and active listening are effective ways to demonstrate a customer service orientation. In terms of language, the author suggests, it is important to maintain a friendly and informal tone instead of a serious and formal one, as well as using concrete language to describe the actions taken to fulfil the customer's needs.

Moving on to inward-facing soft skills, problem-solving orientation in Chapter 8 is defined based on Shim and colleagues (2019) "as a person's cognitive, emotional, and behavioral attitudes towards a given problem" (p. 116), a skill also given high priority by employers. The chapter explains the distinction between positive and negative problem-solving orientation. Whereas negative orientation hampers effective resolution through avoidance, procrastination and other unfavourable behaviours, positive orientation is viewed as having a positive mindset with confidence and willingness to solve problems. The author convincingly argues that it is important to view problems as challenges or opportunities, and express the belief that a solution is attainable and will lead to successful outcomes. He also breaks down the steps leading to success. The importance of gestures that can be employed to demonstrate a positive problem-solving orientation, such as smiling, making eye contact, nodding to convey positivity with understanding, whilst active listening is also highlighted alongside the tone and language to be used that also show the belief in finding a solution.

Pertaining to a positive orientation to work, employers highly value productivity and positive work ethics (Chapter 9) exemplified in the pursuit of high-quality work delivered in a timely manner. The author proposes three strategies to exhibit such qualities. First, individuals should be diligent in carrying out their responsibilities. Second, they should strive for achievement, and finally, they need to display internal motivation to acquire new work-related skills. Practical actions that demonstrate productivity and a positive work ethic include maintaining focus and resisting distractions. Moreover, employing effective language, such as speaking with enthusiasm and using phrases that convey a desire to complete tasks efficiently on schedule, going beyond assigned duties whenever possible and consistently taking initiative, can effectively showcase these qualities. The significance of productivity and a positive work ethic is further emphasized by pointing out how technological advancements such as social media can potentially hinder productivity.

Rated among the top five skills by employers, likability is the final soft skill discussed in the book (Chapter 10). The author borrows Sanders' (2005) definition which posits that likability is "the ability to create positive attitudes in other people" (p. 143); that is, to make other people feel good across a range of varied situations where interactions take place by displaying traits, such as friendliness, helpfulness, enthusiasm and other favourable qualities. Likability stems from positivity, extroversion, and selflessness, and it can be displayed through language and gestures. Practical gestures that demonstrate likability include smiling and nodding to indicate active listening, raising eyebrows to convey enthusiasm, and, when appropriate, engaging in friendly physical contact, such as a shoulder touch, arm touch or handshake/fist bump. In terms of language, using phrases that end with exclamations can demonstrate positivity and enthusiasm. A highly recommended strategy to establish oneself as a likeable person is to subtly highlight the similarities between oneself and others. Thus, using phrases that invite others to share their opinions demonstrates that their viewpoints are valued, while phrases that draw

comparisons between oneself and others subtly imply similarities. Specifically, employers seek individuals who can collaborate efficiently with others to achieve common objectives, treat clients and colleagues with courtesy and respect, and display enthusiasm towards their tasks. The chapter also touches upon the advances in technology such as the importance of human-robot interactions, pointing out that robots can be programmed to emulate human likability by modulating their tone and offering apologies when necessary among other characteristics.

In the final chapter, which raises the question of whether soft skills can be taught, the cat is let out of the bag, when the reader finally learns that the book was born out of the ambitious endeavour to design a mandatory soft skills course for undergraduate students at the George Brown College in Toronto. In response to receiving negative feedback from employers, a team of faculty members conducted research to find out what soft skills employers considered most crucial and what methods could be used to teach them. Based on the results of the research, a team of instructors embarked on designing an intervention course focused on soft skills. They drew upon pedagogical and psychological theories along with behaviour modelling to enhance interpersonal skills. This was followed by the piloting of the course named *Successful Social Relations*, which eventually became a mandatory component of the curriculum. A survey was made to assess the effectiveness of the course after more than 10,000 students had completed it. Further research sought the opinions of employers on the soft skills of students who had taken the course. Additionally, they gathered feedback from students currently enrolled in the course, regarding their knowledge and intention to utilize soft skills in the future. The results confirmed the study's hypotheses; thus, the researchers concluded that the course, as currently designed, is effective and can be expanded to reach more students and other educational institutions.

Unlike so called “self-help books”, which treat soft skills rather superficially, the value of the author’s contribution lies in its unrivalled achievement to bring theory and practice together, tracing the origins of soft skills to the disciplines of ethics, psychology, and interpersonal communication. The practical aspect of the book is enhanced by real-world case studies not only in the practical chapters but also in the theoretical ones. The reader is invited to put the concepts into practice by working on the questions raised in various case studies. The practical chapters are complete with the author’s answers and solutions concerning real-world examples, as well as a rich repository of phrases which assist in the effective demonstration of the soft skills explored in the book. Coupled with a large body of research presented by the author, not only are readers made aware of how they apply soft skills, but they are also made to think about the ways they could improve such skills, especially the ones related to communication. On the other hand, however, the somewhat idealistic treatment of soft skills leaves the reader to wonder whether a rigorous pursuit of demonstrating these skills is always beneficial in real life. Take for instance likability. The author convincingly argues that in addition to showing enthusiasm towards the tasks one is assigned, an important aspect of likability is to be always ready and enthusiastic to take on more. This attitude may be truly helpful in the short run, as employees present themselves as dependable, thus making them indispensable in the workplace, but, at the same time, it is guaranteed to lead to burnout if not worse. In these situations, for example, a beneficial soft skill to practice would be to know how to mitigate the workload to an acceptable level while maintaining a good relationship with the superior. Another delicate issue is physical contact. Engaging in physical contact to demonstrate likability is a culture-sensitive issue and may not always be welcome, which should be given more emphasis. Similarly, the speech acts

discussed in the book, such as requesting, criticizing, agreeing and so forth have been shown to be culture-specific as well.

In summary, the book offers new perspectives in an emerging field worthy of scholarly attention and at the same time with its practical orientation it is a must read for instructors, trainers and other educators who are looking to develop similar courses, as well as for those who would like to find out where the roots of communication problems may lie and are interested in overcoming them by demonstrating effective soft skills beneficial not only in the workplace but in all walks of life.

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Declaration Statements

Conflict of Interest
The author reports no conflict of interest.

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

Ethics Statement
No dataset is associated with this article.

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