Typology of Epistemologies for Democratising Knowledge and Policy Benefits for All Mainstreamed by Doctoral-Study

Alison Tay
European Commission Expert, UK

Ferit Hysa
University College Dardania Praština, KOSOVA/
University of Elbasan “Aleksander Xhuvani”, ALBANIA

Abstract: Ursula von der Leyen identifies diverse classrooms have different knowledges and ‘epistemologies’. A typology of epistemologies for democratising knowledge ‘A Blueprint for Character Development for Evolution’ (ABCDE) is offered to mainstream policy benefits for all by Higher Education as hubs i) credentialing educational leaders by doctoral-study and ii) propelling networks of Professional Educators and Administrators Committees for Empowerment (PEACE) across professions credentialed by Higher Education and chaired by educational leaders. PEACE builds robust evidence bases to inform redesigning curriculums and culturally responsive pedagogies as policy benefits that empower students to use ABCDE with Assessment for Personal and Social Learning (APSL) to problem solve across the quadruple-helix. Education Outcomes include students’ self-management of personal and social understanding and wellbeing for resilience within sustainable circular, entrepreneurial, green and digitised economies with products and means of production regulated by professions credentialed by Higher Education. Impacts include communities developing responsible historical social consciousness to reinvigorate democratic governance, accountability, transparency, effectiveness and trustworthiness of rule-of-law based institutions and policies to expand active and inclusive citizenship empowered by safeguarding human rights. Further research, building on the powerful European Commission funded platform ‘DocEnhance’ is recommended to inform effective and efficient investment into high quality education and training.

Keywords: Education outcomes, knowledge production, peace, prosperity, sustainable development goals.


Introduction

The findings of a 11 year research project with Principal Investigator Tay revealed a professional challenge for policy makers, experienced teachers and diverse communities today is i) these groups do not have a clear working definition of epistemology, ii) they do not understand why synthesising epistemologies is important to create robust evidence bases to democratise knowledge; iii) they do not understand whose epistemology counts in research that generates Models of Effective and Efficient Measures for education and training pathways to democracy or democracy’s anti-thesis of dictatorship and iv) they have not been prepared to synthesise epistemologies to build robust evidence bases to develop culturally relevant models of effectiveness that map to models of effectiveness (Altae & Tay, 2021; Haider-Baldwin & Tay, 2021; Tay, 2012a, 2014, 2017; Tay, Arar, Chopra, Imam, Harrison, McNamara, O’Hara et al., 2020). Hunter (2022) documents that educational leaders in Canada were not able to analyse quantitative data, and they were analysing qualitative data 6 months into a programme of study that does not give the opportunity to implement back dated interventions. Rather teachers need to be empowered to do their own research in the classroom to identify when measures on pathways to culturally relevant education outcomes have not been met and need to be mitigated for through assessment for social and personal learning. Mitigations for risk can be analysed which inform evidence based interventions in current time with and by teachers and students and communities (Tay, 2019). Educational Professional and Credentialed Experts need to support teachers’ and communities’ research and their credentialing comes from doctoral-study supported by the professoriate situated in the academy which is a site of the democratisation of knowledge (Delanty, 2001).

The professional challenge needs to be considered in terms of epistemology as the ‘knowledge of what is’ (Tay, 2012b) and how epistemology underpins the education profession identified by Ursula von der Leyen (European Union,
2019) as a highly competent, enthusiastic and committed professional staff... solving the problems of teacher shortages... a teaching profession that must be upgraded, socially and, in some Member States, financially. In lower secondary schools, only 20% of teachers consider their profession to be valued by society and almost half of them indicate that the high administrative burden is a stress factor in the profession; Teachers and trainers must have continuous opportunities for professional development. The Organisation for Economic Co-operation and Development (OECD, 2018) Teaching and Learning International Survey (TALIS) found that a high number of teachers expressed the need to develop their skills in teaching students with special needs, using digital technologies and teaching in multilingual and multicultural classrooms.

Diverse classrooms that are multilingual and multicultural, as identified by Ursula von der Leyen above, have students with different knowledges of what is, or different ‘epistemologies’ (Popper, 1967; Taysum, 2012b). These students’ different epistemologies reflect different world views and can be informed by migration, tolerance and understanding of ethnocultural and linguistic diversity, international solidarity and global citizenship, inequality, disability, hate speech, polarisation and extremism, radicalisation, experience of war, crises and trauma, age of lifelong learners, ethnicity/race, religion, gender, those recognised as being disabled by society, and GLBQT+ and marginalisation (Hysa & Taysum, 2022; MacLeod, 1995; Rusîtoru et al., 2020; Taysum & Arar, 2018). In terms of legitimacy for inclusion, diversity and equity of access, process and outcomes, there are signs of a potential shift from governance based on expertise, multitiered and consensus-driven policymaking towards majoritarianism, unilateralism, nationalism, populism and polarization. The shift reduces teachers to technicians who deliver prescribed curricula where students memorise facts to pass tests and there is homogeneity in identity (Ball et al., 2011; Gewirtz et al., 2021). Democracy is associated with higher human capital accumulation, lower inflation, lower political instability, and higher economic freedom (Collins Ayanlaja & Taysum, 2022; Doucouliagos & Ulubaşoğlu, 2008; Hysa & Taysum, 2022; Imam & Taysum, 2022), self-determination (Taysum, Beutner et al., 2020; Taysum et al., 2019) and closely tied with sustainable economic sources of growth, like education levels and lifespan through improvement of educative institutions as well as healthcare.

Further, research shows that voters with more extreme attitudes are overrepresented among citizens with low formal education and a below-average household income (Cooney, 2019; Imam & Taysum, 2022). Populist discourses and extremist groups find more support among citizens who benefit less from cultural modernisation, economic liberalisation and internationalisation, particularly in a context of food crises with failing crops in India, and war impacting exports of wheat from Ukraine. Measures are also required to identify how education is empowering citizens to hold governments accountable for fair wages, affordable food prices, fair energy prices and anti-trust laws that eradicate corruption, lies and tyranny to safeguard rule-of-law institutions. Currently The Programme for International Student Assessment (PISA) quiz points (OECD, 2022) do not measure whether education is preparing people to i) propel local entrepreneurial economies embedded in vibrant diverse cultures that optimise social mobility, health and wellbeing on physical, mental, emotional and spiritual levels of life, or ii) starve in local communities that are controlled by Foreign Direct Investment, climate change, and legacies of human trafficking and exploitation that cannot be challenged due to no rule-of-law institutions, or under-funded and weakened rule-of-law institutions (Croft, 2022).

To address the professional challenge in the policy context, the objectives of the paper are four-fold. First, to identify the methodology of typology that seeks to categorise the focus of this paper which is ‘epistemology’. Second, to identify what epistemology is and the role of the doctorate in revealing this preserved knowledge. Third, to consider how doctoral-study develops the teaching profession’s leadership to develop responsible historical consciousness in top down and bottom up knowledge flows of an education system. Finally, to consider the role of doctoral-study in optimising education outcomes for all in the COVID-19 recovery and in growing civil unrest caused by culture and economic wars.

The objectives are addressed with four research questions. First, to identify how and in what ways the methodology of typology allows us to categorise the focus of this paper which is ‘epistemology’? Second, how and in what ways does doctoral-study reveal understandings of epistemology is important for teachers’ professional practice? Third, how do these revelations empower building responsible historical consciousness to optimise education outcomes? Finally, how and in what ways can leaders of the teaching profession mobilise their doctoral-studies to enhance education outcomes?

Our position in the research is that the democratisation of the epistemology of what counts as measures of effectiveness, and efficiency on pathways to improvement (Leithwood et al., 2020; Muijs et al., 2016) has the potential to create win-win education systems for all and achieve the Sustainable Development Goals (United Nations, 2016). The win-win is found in the culturally responsive measures of education effectiveness, efficiency and improvement that empower communities to participate in the institution rule-of-law with access to mitigation and to developing the problem solving skills/faculty of judgement. The democratisation of epistemologies for what counts as measures of effectiveness and efficiency for pathways to democracy relate to continental, bloc, federal, state, and community cultural responsive needs to empower all students to move from immaturity to maturity and develop good faculty of judgement (Collins-Ayanlaja et al., 2018; Taysum, Arar, Chopra, Imam, Harrison, McNamara, O’Hara et al., 2020; Taysum, Arar, Chopra, Imam, Harrison, McNamara, Pogosian, et al., 2020; Taysum, Beutner et al., 2020). Such skills, dispositions and strategies empower communities to know how to hold democratic governance to account to assure rule-of-law institutions that safeguard human rights, and any changes are slow and subject to a public, participatory moral inquiry.
The structure of the paper is first to present the methodology as a conceptual paper taking a typology approach. Next, to define epistemologies in relation to research design, ontology and doctoral-study and the different kinds of doctorates that offer different kinds of learning experiences. These may support education for the thesis of democracy or support the anti-thesis of dictatorship/oligarchies and a toolbox to mitigate for such differences that offer information that democratises the doctoral experience becomes increasingly necessary. Educational Leaders with doctorates can promote understandings of epistemologies being mobilised in the classroom to build a robust evidence base of professional praxis to optimise students’ health, and education outcomes mapped to social, economic and ecological sustainable growth. Educational leaders with doctorates can lead the re-professionalisation of professional teachers where a robust evidence base informs redesigning culturally responsive curriculums, pedagogies, and assessment for personal and social learning (Taysum, 2019). Conclusions follow that doctoral-study is crucial to credentialise educational professional experts to lead the profession. The DocEnhance platform (DocEnhance, 2023) is recommended as a new and powerful toolbox of thinking tools that offer skills, dispositions and strategies for democratising the doctoral experience and epistemologies across nations, blocs, regions and international multifarious regimes to support education for democracy. The DocEnhance project (DocEnhance, 2023) has now delivered its results and outcomes but to enhance long term impact, these require valorising through further investment to optimise effective and efficient investment in high quality learning and education outcomes (European Commission, 2022b).

Methodology

Jaakkola (2020) argues conceptual papers must have a justified and clearly explained research design that methodologically considers the theories chosen and how they are analysed in conceptual papers. The methodology of this paper is that of typology that seeks to categorise the focus of this paper which is ‘epistemology’ (MacInnis & De Mello, 2005) The typology builds theory on different epistemologies and how a typology of epistemologies classifies conceptually distinct types of epistemologies (Cornelissen, 2017). The typology is more than just a classification system Snow and Ketchen Jr. (2014) because it offers incremental progress through five relational variants of epistemologies (Doty & Glick, 1994). These variations engender proof of concept (Fiss, 2011). This allows a citizen to use the typology to monitor and evaluate their development from epistemological confusion, insecurity, and fear, to ways of knowing that are confident, resilient, and facilitate self-management. Epistemologies that facilitate good faculty of judgement balance self-interests and the interests of the other in a social contract that builds inclusive communities that can develop grass roots up collaborative solutions to problems using the typology. Progress through these epistemologies can be supported by education for democracy that reduces the complexity and helps shed light on the kinds of epistemologies that might further the anti-thesis of democracy; dictatorships and tyranny. This paper seeks to develop a typology of epistemologies by defining epistemologies, and identifying the problems of defining epistemologies in the context of stereo-typing and unconscious bias. The paper then seeks to mobilise typology methodology to categorise different epistemologies and identify relationships between these. The paper then seeks to reveal if incrementally progressing through the Typology of Epistemologies can democratise policy benefits for all policy stakeholders by building inclusive knowledge bases that do not privilege one epistemology over another in the democratisation of knowledge.

Literature Review

Doctoral-Study Reveals Why Teachers Need To Understand Epistemology

Kotzee defines epistemology (2013, 157) as the ‘concept of knowledge’ which aligns with Taysum (2012b, 47) who calls it ‘the knowledge of what is’. Different people from different cultures have different ‘knowledge of what is’ or epistemology (Cole, 1996). Strain (1998) identifies epistemology is:

Recalling the ‘critical role’ accorded to followers of Max Weber, Gronn most persuasively cites ‘an emerging consensus that leading is an inherently symbolic activity’, an activity imbued with the intrinsically human capacity to frame meaning, ‘to make sense of one’s own and others’ experiences of the world’. If leadership activities are to contribute as we would wish to the construction of a shared social reality, support of the group must be mobilized through exchange of shared symbols and meanings. This is how identities are formed. (p. 23).

However, Dewey (1909) cites Sir Francis Bacon who calls different groups ‘tribes’ who develop a language and share this language such that the very language can signify who is included and who is excluded and who is a target for bullying. These tribes have taken for granted the words that represent the thoughts of the individual in association with the self and the ‘others’ who are part of the tribe. The tribes may develop a kind of laziness in terms of the words they use, which disconnects them from the thoughts they have. Dewey (1909) suggests training the mind to develop a more nuanced and careful way of using words to accurately express thoughts and to seek clarification that different ‘others’ or ‘tribes’ understand is important. Students and teachers need to explore different forms of knowledge through dialogue and debate (Honeybone, 2020) and pay careful attention to the words used in conveying meaning. Pring (2007) identifies that dominant epistemologies/tribes/cultures evaluate marginalised epistemologies/subcultures and find them lacking.

Examining epistemologies; the ‘knowledge of what is’ or ‘whose’ ‘knowledge of what is’, is crucial in a context of increasing threats to the thesis of democracy by the anti-thesis of dictatorships, or Leviathans in a context of The Freedom
in the World Report (Freedom House, 2020) showing that democracies across the globe are in crisis. Various European surveys show declining levels of trust in the political institutions of democracy (Melios, 2020) affecting the wealth and health of citizens in a world tormented by perpetual Violence, Uncertainty, Chaos and Ambiguity (VUCA), and this situation has continued over millennia (Taysum, 2021).

In sum, the clash of epistemologies, or culture wars are played out between:

i) Billionaires/Millionaires vs those of any lower economic status (Gray, 2021);

ii) Cash rich nation states exercising Foreign Direct Investment, or Stateless Foreign Direct Investors with balance of payments in surplus vs nation states subject to Foreign Direct Investment/Outsourcing (Taysum, 2019) with balance of payments in deficit;

iii) males vs females in a gender gap (Bahous, 2023);

iv) White Unconscious Bias (with divided groups by class) vs Black Asian, Minority Ethnic groups’ marginalization (with divided groups by class and race and ethnicity (Taysum & Murrel Abery, 2017).

Addressing and arresting these epistemology wars or culture wars is vital for sustainable development, particularly in the COVID-19 recovery, because the dominant Leviaths can create evaluative rules and policies that projects their private language of authoritarian control and exploitation and prevents access to their ‘capital’ or ‘epistemology’. Their epistemology gives access to pathways to destinations of knowledge (for example elite Universities like Oxford, Cambridge, MIT, Stanford) that is required to become a member of the Leviathan’s club (Hobbes, 1651; Taysum & Arar, 2018). Further history demonstrates that the body of the citizenship can instigate bloody revolutions which may lead to what Hamilton and Cairns (1961) calls ‘rudderless pleasure’ but lacks the kinds of virtues and critical thinking skills that lead to developing good faculty of judgement that might have been taught through an education system to which the Leviathan denied the citizenship access.

To address the culture wars, or epistemology wars, curriculums that develop faculty of judgement are required so that citizens can learn how to question and investigate the rules, acts and intentions of those in power. Such skills, dispositions and strategies can be developed through doctoral-study where the confidence can be gained for what counts as acting democratically that serves the best interests of the citizens, rather than acting as Leviathans and serving the best interests of the Leviathans. Hoadley and Galant (2019, 88-89) identifies that redesigning curricular requires ‘classification of new codes of knowledge, and their institutionalisation with new sets of membership rules’ with psychologies, philosophies and ethics of trust (Hyasa & Taysum, 2022) that can be led by professional experts with doctorates, supported by professional researchers, the professoriate, in the academy (Scott, 2014).

The stakes are high because curriculums and their evaluative rules shape ‘the knowledge of what is’ that can create different education systems for different groups with different purposes when stratifying society by dividing and conquering (by Socio-Economic status, gender, race, and so forth) (Taysum & Murrel Abery, 2017). Yet at the same time Jansen (2019) identifies Globally Higher Education Institutions struggle with preparing students to describe, understand and apply disciplinary knowledge to solve problems such as democratising knowledge in school curriculums to support education for democracy. Rather Jansen suggests curricular need to be re-designed so that students know how to apply knowledge to support education for democracy and identify and eradicate epistemic injustices and move from unconscious bias to responsible consciousness.

**Doctoral-study building responsible historical consciousness to optimise education outcomes**

Higher Education Institutions can empower educational leaders on doctoral journeys to identify where epistemologies clash and in so doing identify where a dominant epistemology reduces the working people to ‘sub-human beings’ and their value to symbolic representations of objective units of measure, or ‘betas’. A beta was introduced in the 1970s and heralded the start of neo-liberalism (the rapid removal of rule-of-law without citizens’ fully understanding the change or its impact (Taysum, 2019). A beta is a measure of the systemic risk or volatility of a portfolio compared to the rest of the market (Kenton, 2021). Here the systemic risk of a neo-liberalist economic system can be controlled, where the systemic risk is a human, human beings must be controlled to minimise risk to the Leviathan’s system of control, power and elite status and wealth. Adam Smith (1776) argues it is a person’s ability to create their own wealth through Micro, Small and Medium Enterprises (MSMEs) that empowers them to be independent and autonomous and have a political voice in association with the state. Neo-liberalist Leviathan policy makers can create the conditions where individuals cannot create their own MSMEs by i) reducing education systems that prevent them becoming creative, confident, entrepreneurs and ii) reducing their markets. Stewart (2021b, p.1) identifies in the UK there is: ‘fury at Gove as exports to the European Union are slashed by 68% since Brexit’, meaning the market is shrinking and with it the MSMEs which reduces the middle classes (Taysum, 2022d). Corporations step in to fill the gap of the bankrupt MSMEs and community wealth is redirected to their elite shareholders’ dividends (Diamond, 2012). The reduction of the middle classes can be blamed on the communities by a divide and conquer approach to blaming the refugee or immigrant, or person of colour for taking the ‘White’ person’s job which causes Violence Uncertainty, Chaos and Ambiguity (VUCA), culture wars and communities are distracted from seeing the cause of their reduced wealth; the leviathan policy maker (Taysum and Murrel-Abery, 2017).
Haas and Fischman (2010) argue dominant stereotypes are symbolic representations of many single items. An example is ‘a chip’ is a symbolic representation of all chips that have existed, exist and may exist in the future. Communication would be challenging to give each of the millions of chips an individual name, such as ‘Chip 1’, ‘Chip 2’, ‘Chip 3’ and so on. So, humans group all these individual chips in their grammar of thinking for convenience, and call them all ‘chip’ and can project the characteristics of one chip onto all chips. The symbolic representation of a chip does not include the first form, or how chips thereafter are imitations of the first form, or mutations of the first form, and so on. All chips become a symbolic representation of a chip and a stereotype. Similarly, Haas and Fischman (2010) present ‘prototype universities’ as a stereotype or symbolic representations of how ‘universities’ are categorised from a single example. Individuals’ personal experiences of different universities, if they have such experience, are often limited and therefore their ‘prototype universities’ are formed through how universities are represented in the popular media that may be democratic, operating under freedom of the press and freedom of speech protections and institutional rule-of-law, or owned and controlled by the state regime; the antithesis of democracy.

Access to these different kinds of higher education is offered to different kinds of meritorious students with multifarious narratives, but if these students do not have understandings of what different kinds of universities are, and what kinds of access they will give them to elite pathways to success, the Universities can perpetuate inequalities in education systems. Understanding diverse epistemologies, which change over aeons, enables teachers to challenge dominant and fixed ideologies, stereotypes and stereotypical life and career trajectories that both manage and perpetuate inequalities through reductionism (Wong & Glass, 2009). Therefore, recognising socio-cultural and biographical diversity through democratisation of epistemologies is an important role and educational leaders doing doctorates can become ambassadors, role models, and expert advisors/counsellors for their communities of inclusive education, demonstrating resilience and virtue (Adler, 1941; Haas & Fischman, 2010). Taysum (2019) identifies that one of the respondents of her international comparative study—a provider of a doctoral programme in a University states:

The university, being a large establishment, regards itself very much as one of the premier research universities, with justification... The term that’s used is comparator universities – those in the Russell Group. In the university I was telling you about earlier it seemed possible to end up doing a doctorate using an interpretive approach within the qualitative dimension or a positivist approach within the quantitative dimension, without knowing anything about the alternative. So, a problem with a Doctorate of Education (EdD), and perhaps also the PhD, is the tremendous variation in requirements that exist as well as, I suspect, in quality. So, when is a Doctorate of Education a Doctorate of Education?

Doctoral research may not be training educational leaders to mobilise quantitative research within a positivist epistemological approach. This means professional teachers and leaders are not learning how models of effectiveness enable him to develop measures of effectiveness from the literature. Further, without knowing how measures of effectiveness enable progress to be monitored and evaluated in areas of models of effectiveness (Leithwood et al., 2020) educational leaders do not know how to manage using positivist epistemologies to lead the development of quantitative culturally responsive measures of effectiveness (Pring, 2014). Culturally responsive measures of effectiveness empower educational leaders to meet the learning needs of students informed by baseline testing of epistemologies (knowledge of what is) related to national curricular Intended Learning Outcomes. A positivist epistemological approach empowers educational leaders to bridge between the measures of effectiveness that map to national government regulatory frameworks, inspection regimes and national strategies and local community priorities to enable communities for example to have zero hunger (SDG 2), equitable education (SDG 4) and eliminate gender gaps (SDG 5) which bridges between meeting their culturally relevant needs and the National Targets (Taysum, 2022a). However, the pathways to improvement that optimise institutional cultural responsiveness and build responsible historical consciousness to exchange culture wars for solidarity and regimes of social inclusion take, for example, an interpretivist epistemological approach to mobilise the strategic plan. With both epistemological approaches, it is possible to monitor and evaluate incremental progress on qualitative pathways with culturally relevant pedagogies to optimise students’ wellbeing and learning using the culturally relevant quantitative milestones, or measures of effectiveness. Taking both epistemological approaches offers the chance to identify if the milestones/measures of effectiveness are not being met and allows teachers to mitigate with evidence informed interventions to achieve the short term results, mid term outcomes and long term impact that provide feedback loops to inform effective and efficient investment in quality education and training to support democracy.

Leaders of the Teaching Profession Mobilise Doctoral-Studies to Optimise Education Outcomes

A positivist epistemology allows the establishment of measures of effectiveness and efficiency in an education system and enables the evaluation of incremental progress of students on pathways to achieving the sustainable development goals. A researcher with a positivist epistemology believes they can collect objective facts gained from the senses (Cohen, et al., 2000). Answers to questions yield yes and no answers with numeric values, for example, 1 for ‘yes’ and ‘0’ for no
which can be readily coded and inform data bases for Artificial Intelligence. The data collected is, those with positivist epistemologies believe, value free, and the infinite number of possibilities of answers between 0 and 1 are ignored in this programme of study as are the voices of those who may not provide a return to the research and therefore decline to participate in the research. The science is based on rules that emerge from very large quantitative data sets. This is very important if the evidence base is going to inform policy making. Those with positivist epistemologies seek universal laws by testing hypotheses against the finding of facts (Taysum, 2019). If two or more findings of facts that are dependent or independent variables appear together in a sequence these may be considered to have a relationship of correlation, or even of causation, though causation is difficult to prove.

However, Robson (2011) identifies that researchers with a positivist epistemology are not value free, and that their research may transmit unconscious bias and therefore positivists can only work with ‘probability’. The researchers with this epistemology take a ‘post-positivist’ approach and are cautious that the models they test may carry unconscious bias. If research carries unconscious bias in today’s world there would be perpetual hunger, disease, wars, and unsustainable environments for human development causing climate loss and damage polarised by those with an elite status who have access to policy makers (Taysum, 2019). The kinds of questions that researchers with a positivist or post-positivist epistemology ask, to gain yes or no answers to their questions are ‘what?’ or ‘do you?’.

A person evaluating Sustainable Development Goals using an interpretivist epistemology believes they can collect individuals’ truths by collecting their narratives and analysing the descriptions of acts to arrive at understandings of values, attitudes and intentions. This might be the narratives of how a student/adult learner describes and understands the level they have met the Intended Learning Outcome, perhaps at a pass, and how they describe and understand the level they want to meet the Intended Learning Outcome at, perhaps at a grade A, or distinction. The narratives collected might also seek how learners interpret their feedback from the teacher and how they want to take the time to reflect on the feedback in a learning activity/inquiry to bridge the gap between where they are now in their learning pathway mapped to milestones to the Curriculum Intended learning Outcomes and where they want to be. This follows A Blueprint of Character Development for Evolution (ABCDE), or a typology of five epistemologies to optimise education outcomes:

- **Stage A**: Ask questions to address a particular problem;
- **Stage B**: Develop synthesised descriptions and understandings of the key words/ideas/constructs of the questions and compare and contrast these drawing from the best that has been thought and said (different epistemologies), synthesised with internal working models (individuals’ epistemologies in a diverse classroom);
- **Stage C**: Develop methods taking positivist and interpretivist approaches to address the questions and deepen understandings of diverse epistemologies in the local and particular context;
- **Stage D**: Implement the evidence informed, logical and ethical change strategy with Key Performance Indicators to allow the critical evaluation and assessment of the change strategy to prove if it works (proof of concept with synthesised epistemologies or explanation for why epistemologies are not synthesised);
- **Stage E**: Examine the core aspects and impacts of the change strategy to identify if there are any emerging principles that might be applied to other problems (have transferability) to solve them in a context of diverse epistemologies.

A Blueprint for Character Development for Evolution (ABCDE) is operationlised in Figure A; Assessment for Personal and Social Learning (Taysum, 2019) in Five Stages A, B, C, D, E that map to i) A Blueprint for Character Development for Evolution (ABCDE) and ii) a typology for epistemologies that can be progressively gained and synthesised during the education process. Educational leaders with doctorates can support professional teachers to engage with research and to learn by inquiry. This is only possible if teachers engage in high-quality Initial Teacher Education or Training that maps back to their relevant Teaching Standards. These standards are developed throughout their professional careers through Continuing Professional Development led by educational experts with doctorates in partnerships with Higher Education hubs. These powerful partnerships build professional expertise in the classroom to optimise students’ learning, well-being and education outcomes that provides a platform for building democratic values that underpin participation in the social contract (Arar, & Taysum, 2019; Kant, 1785; Rawls, 2006). Such expertise needs to be mobilised through networks and communities of professional practice or Professional Educators and Administrators Committees for Empowerment (PEACE) (Taysum et al., 2019) and to share good practice and support one another (Beatty, 2007). Together the teacher and student can map the Intended Learning Outcomes (ILOs) of a curriculum to schemes of work that inform lesson plans. The young person and teacher can then develop good questions that map back to the ILOs that are clear, and address the problem or gap in the understanding identified when a milestone was not met in an assessment. A well-formulated question contains half the answer according to Dewey (Haidar-Baldwin et al., 2021). Students therefore need to choose for themselves what they are going to investigate on their learning pathway to meet the ILO, guided by the teacher who wishes to facilitate students’ learning so that they meet an ILO from the standardised curriculum at Stage A.

At stage B students can collect data from different epistemologies to address their questions. At stage C the teacher provides formative feedback in a process of Assessment for Personal and Social Learning as a method to help the students identify what they have achieved, and what they need to achieve on their learning pathway to meet the milestone and
ILO of the curriculum. At Stage D the teacher and student reflect on the feedback and together they develop a strategy/learning pathway for the young person gaining the information or skills they need to address the feedback and meet the ILO. At stage E the student and teacher consider if the student has developed a theory of change about their new knowledge, which has impacted them with a change in identity caused by synthesising epistemologies following ABCDE and the taxonomy of epistemologies. The student can consider if what they have learned can be applied to other aspects of their personal and social learning. This may raise further questions and takes the student and teacher to Stage A and the chance to consider the next Intended Learning Outcome in the curriculum that the students need to meet. This offers students the chance to transfer operationalising ABCDE independently as a tool to solve problems, including how to address culture wars and climate change to build peace and prosperity in new partnerships that are kind to people and planet (United Nations, 2016).

**Figure 1. A Framework for Assessment for Personal and Social Learning Taking a Deweyan Perspective**
Learning is a shift in identity and collecting narratives provides descriptions and understandings on how identities have been created within structures that have shaped the identities, which in turn have shaped the structures. Here the structures are policies, so the epistemologies that create the policies, create the identities. If neo-liberal epistemologies create the policies that create identities, then the people will have identities that perpetuate neoliberalism that prevents the growth of the middle classes who can propel entrepreneurial economies and sustainable development (Taysum, 2019). If communist epistemologies create the policies that create identities, then the people will have democratic identities that perpetuate democracy that amplifies the growth of the middle classes who can propel entrepreneurial economies and sustainable development. The networks that policy makers make, be they global, or local, create the architecture that builds the thesis of democracy, or the anti-thesis of dictatorship located in the natural environment (Taysum, Arar, Chopra, Imam, Harrison, McNamara, O’Hara et al., 2020; Taysum, Arar, Chopra, Imam, Harrison, McNamara, Pogosian et al., 2020; Taysum, Beutner et al., 2020). When exploring the professional challenge and the identities that have shaped those constructs, it may be possible to arrive at some characteristics or epistemologies that may be found in a particular set of circumstances within the teaching profession, the policy makers and the community members within different regimes.

Asking questions about epistemologies at Stage A of ABCDE through doctoral-study, supervised by, and in partnership with the Higher Education hubs, or the academy, may lead to a synthesis of epistemologies from a taxonomy of epistemologies at Stage B of ABCDE. These can include definitions and deep understandings of each epistemology and its legacy, be that an epistemology of colonialism, neoliberalism, communism, or of a faith, or of no faith, of a cultural heritage, or of a democracy and so forth. The critique and synthesis of epistemologies can support education for democracy in diverse classrooms mapped to global priorities such as the Sustainable Development Goals (United Nations, 2016), and the United Nations Global Competences (OECD, 2019), or the laws of all faiths and non (Taysum, 2022b, 2022c). It may be possible to gather data about these epistemologies at Stage C that leads to generating a working hypotheses that supports education for democracy or otherwise. At Stage D of ABCDE, these hypotheses might then be tested for proof of constructs, or proof of concept from which theories of change can emerge. The kinds of questions that seek different truths using interpretivist approaches are 'How' and 'Why' questions that reveal deep understandings (Taysum, Beutner et al., 2020). However, the research questions that emerge to test a model will need measures of effectiveness and efficiency to monitor and evaluate incremental progress on pathways to optimise wellbeing and learning. This stage of the research requires positivist or post-positivist epistemologies. The model that emerges from the rich narratives is now about testing the deconstructed items of the model, that cannot be reduced any further, with questions of 'What' or 'Do you?'. To describe and understand constructs it appears researchers may need to take interpretivist approaches to gather deep narratives by asking 'how' and 'why' questions from which they can further develop working hypotheses and test a model of Assessment for Personal and Social Learning by asking positivist or post-positivist 'Do' and 'What' questions. If the hypotheses do not have proof of concept, the teacher, within their professional communities of practice, supported by their senior leadership team, who are supported by their Bridge leader with a doctorate, who is supervised by the Higher Education professoriate, who is supported by the regional Mayor, who is supported by the state level policy makers, may need to move back to the interpretivist approach to gain the descriptions and understandings of different truths or epistemologies. Therefore, research may move back and forth between the Stages of ABCDE and take different epistemological approaches to gain different kinds of data that provide different kinds of descriptions, and understandings and answer ‘what’ and ‘do you’ questions or ‘how’ and ‘why’ questions mobilising both summative and formative assessment for learning at the multifarious levels of the education system.

In sum, professional Bridge leaders with doctorates, supported by the academy, ensure i) the quality of the small groundwork case studies that take an interpretivist approach inform practice that contributes to a robust evidence base and ensure ii) the quality of the models of effectiveness and efficiency that take a positivist or post-positivist epistemology have been tested with large samples and can be generalisable to large populations. Both contribute to a robust evidence base that allows the synthesis of the policy makers, teachers and community members’ epistemologies to support education for democracy. Thus, ABCDE with Assessment for Personal and Social Learning offers a Typology of Epistemologies for democratising knowledge and policy benefits for all mainstreamed by doctoral-study. This links to Mannheim (1936) who identifies that intellectuals have an ability to attach themselves to classes and groups to which they were not born into because they have humble and un-assertable understandings of diverse viewpoints having experienced different epistemologies, or cultures, which is called culture straddling (Carter, 2016; Stanton-Salazar, 2010). Mainstreaming this ability in civic society by cultural straddling in the education process is critical for building democratic values and we have argued this is possible with the tool ABCDE and Assessment for Personal and Social Learning. However, the returns on investment may not be clear for policy makers who are keen to mobilise education. Intended Learning Outcomes that deliver for the labour market and development of sustainable economic growth (Rujitoru & Taysum, 2022). It is crucial that educational leaders with doctorates work in partnership with Higher Education and policy makers to operationalise ABCDE and Assessment for Personal and Social Learning as a typology of epistemologies for democratising knowledge and policy benefits for all mainstreamed by doctoral-study. Such effective and efficient investment empowers seasoned credentialed leaders with doctorates and track records of delivering high
quality education outcomes (European Commission, 2022b), to work in partnership with Higher Education to prepare professional teachers through Continuing Professional Development (CPD) to be able to include cultural responsive pedagogies for cultural straddling. This means investing in teachers’ CPD that empowers them to understand how their ability for cultural straddling, and their ability to mainstream students’ ability for cultural straddling in their classrooms will have a greater impact on the labour market and sustainable economic growth, even though this does not appear to be the Intended Learning Outcome. Such pedagogies start from students’ baseline assessment and offer learning experiences that enable the students to bridge the gap from where they are now, to where they need to be to meet particular curricular Intended Learning Outcomes. At the same time, they can develop the ability for cultural straddling and build a responsible historical consciousness required to achieve the Sustainable Development Goals and peace and prosperity in new partnerships that are kind to people and the planet (Taysum, 2021; United Nations, 2016). If learning is focused on teaching students to pass tests buttressed by inspection regimes that enforce teaching students to pass tests with measures of effectiveness, such best practice focusing on cultural straddling that amplifies cultural responsiveness and differentiation to optimise students’ wellbeing and learning, can be lost. The loss can be due to all the forces acting against the professional teacher teaching the students, resulting in the teacher being reduced to teaching the curriculum which can destroy the social and human spirit (Dewey, 1909; Frederick, 2022). From a position of epistemological straddling, Taysum and Slater (2014, p.150) state doctoral students develop:

Multicultural dispositions through doctoral pedagogies that included the supervised creation of a doctoral thesis in a Higher Education Institution with access to resources. The resources included pedagogical relationships with program providers, a library and access to intellectual networks that built leadership capacity within the doctoral education system. Leaders designing and implementing their research and drafting and redrafting their doctoral thesis, engaged with pedagogies that developed a deep understanding of "what counts as evidence," and critical and reflective thinking tools that enhanced their multicultural habits and skills of hearts, minds and hands.

Bridge leaders doing doctoral research became professional experts, but also intellectuals of the order of Mannheim (1936), who can successfully bridge between worlds and can make informed choices about their affiliations to groups and epistemologies. They can mobilise their doctoral training through the PEACE to develop their teachers as intellectuals who can transcend the boundaries of class, gender and race based cultural capital with the chance to synthesise epistemologies (Banks, 1991, 1998). Further, these senior leaders with doctorates can work in partnership with Higher Education/the academy, industry, the government and the society whose interactions are physical and located within a knowledge economy (Schütz et al., 2019). Groups with different epistemologies located on the typology of Epistemologies of A Blueprint for Character Development for Evolution (ABCDE) and Assessment for Personal and Social Learning can develop an ability to attach themselves to classes and groups to which they were not born into, have humble and un-assertable understandings of diverse viewpoints. They gain this through cultural straddling in the classroom which helps them build a responsible historical consciousness. Policy makers need to work in these new partnerships with the teaching profession, led by Bridge leaders with doctorates and Higher Education/the academy to script policy informed by robust evidence bases of high-quality praxis to optimise students’ wellbeing and learning outcomes aligned to health, social and ecological resilience, self-management and wellbeing. This prevents teachers being reduced to technicians and empowers them to reverse unconscious bias, and develop their students’ skills, dispositions and strategies to build peaceful inclusionary communities, that eradicate culture wars, recover from the pandemic, and know how to hold government accountable for policy benefits that serve the interests and priorities of all the people.

**Conclusions**

Marginalisation occurs beyond class with the result of intersectionalities of different epistemologies and discrimination. Our typology of epistemologies ‘A Blueprint for Character Development for Evolution’ (ABCDE) and the Dewey inspired Assessment for Personal and Social Learning (APSL) allows educational leaders doing doctorates to categorise ‘epistemology.’ They can use this knowledge to reveal understandings of epistemology and gain the ability to attach themselves to classes and groups to which they were not born into, because they have humble and un-assertable understandings of diverse viewpoints having experienced different epistemologies, or cultures, which Stanton-Salazar (2010) calls culture straddling. Mainstreaming this ability for cultural straddling in the classroom through the PEACE empowers professional teachers to empower civic society with the ability for cultural straddling through the education process. This ability is critical for building democratic values and building a responsible historic consciousness to optimise students’ learning, wellbeing and education outcomes that are culturally relevant. Mainstreaming this understanding in teachers’ professional practice through training teachers to use ABCDE and Assessment for Personal
and Social Learning through the PEACE is effective and efficient investment in high quality education (European Commission, 2022b) and addresses our research questions:

First the categorisation of epistemologies using ABCDE and APSL empowers the PEACE to re-establish educational governance based on expertise and democracy rather than on majoritarianism, unilateralism, nationalism, populism and polarization.

Second, doctoral-study, provided by Higher Education/the academy results in optimising professional educators' expertise and credentials them to lead the education profession’s professional practice to use positivist and interpretivist epistemologies in the classroom through the PEACE.

Third, the PEACE networked locally, nationally, at bloc level and internationally builds robust evidence bases to inform redesigning curriculums and culturally responsive pedagogies with policy makers, as policy benefits that empower students to use ABCDE with Assessment for Personal and Social Learning (APSL) to problem solve across the quadruple helix. These revelations impact communities by developing historical social consciousness to optimise students’ Education Outcomes of self-management of personal wellbeing, and political, ecological and social understanding for resilience with employers within sustainable circular, entrepreneurial, green and digitised economies with products and their means of production, regulated by professions credentialed by Higher Education.

Finally seasoned, expert, credentialed leaders of the teaching profession mobilise their doctoral-studies, in partnership with Higher Education and the quadruple helix to enhance education outcomes that reinvigorate democratic governance, accountability, transparency, effectiveness and trustworthiness of rule-of-law based institutions and policies to expand active and inclusive citizenship empowered by safeguarding human rights (European Commission, 2022a).

This prevents teachers being reduced to technicians by majoritarianism, unilateralism, nationalism, populism and polarization and empowers them to reverse unconscious bias, by developing their students’ skills, dispositions and strategies for cultural straddling required for building peaceful inclusionary communities. This is important in the pandemic recovery where communities are increasingly cut by division, and impoverished by culture wars. The counter intuitive approach of focusing on the personal education outcomes, results in effective and efficient investment in quality education (European Commission, 2022b) that propels social education outcomes that optimise local entrepreneurial, circular, sustainable green and digitised economies. By prioritising the personal and social education outcomes, the economic education outcomes are optimised with knowledge mobilised from Higher Education/the academy with schools/colleges/apprenticeships through the PEACE and its top down, bottom up agenda (Taysum, 2019). The impact is optimising economic outcomes by focusing on culturally relevant personal and social outcomes.

**Recommendations**

1. Further research is conducted by the International Consortium focusing on efficiency and effectiveness of investment in high-quality education and training that mainstreams the typology of epistemologies ‘A Blueprint for Character Development for Evolution’ (ABCDE) with Assessment for Personal and Social Learning for democratising knowledge and policy benefits for all through doctoral-study.

2. University Vice Chancellors/Rectors/Deans develop Professional Educators and Administers Committees for Empowerment (PEACE) to develop networks of professional educators’ collaboration across boundaries of traditional competition within Higher Education, schools/colleges and lifelong learning institutes, and the quadruple helix to achieve sustainable development and democratic governance that safeguards fundamental human rights.

3. The findings of the not-for-profit platform DocEnhance (DocEnhance, 2023) is valorised with further European Commission funding linked to recommendation 1, to standardise boundary crossing doctoral-studies offering of ABCDE with APSL to enhance the democratisation of epistemologies of doctoral-studies in nation states with different regimes including strong democratic values, neo-liberalism, or communism available here: https://docenhance.eu . The results and outcomes are communities using ABCDE and APSL to problem solve across the quadruple helix. These revelations impact communities by developing historical social consciousness to optimise students’ Education Outcomes of self-management of personal wellbeing, and political, ecological and social understanding for resilience with employers within sustainable circular, entrepreneurial, green and digitised economies with products and their ethical means of production, regulated by professions credentialed by Higher Education.

4. The International Consortium delivers workshops emerging from research from recommendations 1 through to 3 to International Organisations for example European Parliament, the European Commission, the European Council in Brussels, the Council of Europe and the European Court of Human Rights in Strasbourg, the United Nations Educational, Scientific and Cultural Organization at the Institute for Lifelong Learning (UNESCO - Uil) in Hamburg, the International Labour Organization (ILO) in Geneva, the OECD in Paris, the European Center for the Development of Vocational Training (Cedefop) in Thessaloniki, the European Training Foundation (ETF) in Turin, the Centre of Research for Lifelong Education and Training (CRELL) in Ispra and at the Court of Justice of the European Union (CJEU) in Luxembourg, and national governments to empower these policy makers to script the mainstreaming of the Typology of Epistemologies ABCDE with Assessment for Personal and Social Learning for Democratising Knowledge.
to build social and economic resilience and sustainability, strengthened through a better understanding of the social, ethical, political and economic impacts of drivers of change (such as technology, globalisation, demographics, mobility and migration) and their interplay.

5. A free Massive Online Open Access Course (MOOC) supports Masters level experiences for Early, and Mid-Career professional teachers as part of their PEACE training that offers milestones on a pathway to doctoral-study as succession planning to develop future expert gatekeepers of the profession available here: https://alisontaysum.com

It is important to note that for all these recommendations checks and balances can monitor and evaluate the democratisation of representation in the knowledge production at doctoral level, and post doctoral level for the knowledge economy. This will mitigate for risks that dominant epistemologies, even linked to anti-democratic regimes, will perpetuate the current measures of effectiveness and efficiency that reduce access to multiple epistemologies and threaten the thesis of, and epistemologies of democracy. The checks and balances can monitor and evaluate results, outcomes and impacts of the strategy on developing communities’ responsible historical social consciousness to reinvigorate democratic governance, accountability, transparency, effectiveness and trustworthiness of rule-of-law based institutions and policies to expand active and inclusive citizenship empowered by safeguarding human rights (European Commission, 2022a).

A limitation of this study is that it requires further testing through comparative analysis of international groundwork cases that are monitored, evaluated and reported to provide proof of concept of the toolkit ABCDE with APSL mobilized by the PEACE to i) strengthen communication and citizen participation at the subnational government level and ii) document how this typology of epistemologies for democratising knowledge and policy benefits for all, mainstreamed by doctoral-study, is an efficient and effective investment in high quality education and training.

Acknowledgements

The authors would like to thank Professor Alfredo Vicente Gardel for expert and extensive feedback on a draft of this paper and to the editor, and the two anonymous reviewers of the paper for the European Journal for Educational Research who provided highly valuable feedback on previous drafts of this paper.

Authorship Contribution Statement

Taysum: Conceptualization, design, analysis, writing. Hysa: Conceptualization, writing, editing/reviewing.

References


Haidar-Baldwin, M., Taysum, A., Canfarotta, D., & Altai, M. (2021). Reading Iraq, Italy, Lebanon and English groundwork cases of education curriculum policy through Mayssa’s Framework of four competences of critical thinking,


Honeybone, J. (2020). In class debating. 3Score Publishing Ltd.


Taysum, A. (2022d). Editorial of the open access volume 1 issue 2 Journal of Groundwork Cases and Faculty of


