WORKING
GROUP 01

CHAPTER

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Introduction to ISEE Assessment Working Group 1 – Education in and for Flourishing

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Abstract:

This chapter offers an introduction to Working Group 1 of the International Science and Evidence based Education (ISEE) Assessment. It begins by establishing a basic claim on which the Assessment builds: the need to mobilize education to support flourishing. After describing this foundational claim, we outline the structure of Working Group 1 and explain the role of each of the subsequent four chapters within it.

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CHAPTER 1

1.1 The Purpose of Education and the future

'The future and how to prepare for it,' writes Facer **(2016, p.63)** 'is a perennial concern of education'. Education also tends to be future-oriented because, on a societal level, many changes introduced into education today will have their full impact in years and sometimes even decades to come. When education was confined to its traditional goal of maintaining the existing social order, the time gap between the present and future was bridgeable. However, around the nineteenth century, once parts of the world started to change at an increasing pace following monumental transformations such as the Industrial Revolution, the rise of capitalism and the emergence of nation-states, it became clear that the existing social order could not or should not be preserved. As a result, education was increasingly required to find ways to prepare

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students for life in a world different from their own **(Green, 1990)**. Recognizing this nearly a century ago, the great educational philosopher John Dewey **(1923)** argued that the discourse about education never comes and never should come to an end. In recent decades, however, the challenges involved in preparing students for the future have become even more evident. Since 1960, it has continuously been argued that technological and social changes seem to be accelerating as we move into a knowledge society **(Toffler, 1970; Rosa, 2013; OECD, 2019)**. While the question of whether change is indeed accelerating as claimed is debatable, it is hard to deny that change, and the need to deal with it, is now an essential feature of the contemporary world **(Innerarity, 2012)**. Moreover, education is further complicated today by a growing recognition that the future is, to a significant degree, uncontrollable, unpredictable and risky. It has become increasingly evident that the trajectory of many future developments is out of our hands and cannot be foreseen **(Taleb, 2007)**. Today many argue that volatility, uncertainty, complexity and ambiguity (VUCA) are central characteristics of our world **(Bennett and Lemoine, 2014; Mack et al., 2016; Millar, Groth, and Mahon, 2018; Laukkonen, Biddel, and Gallagher, 2019)**. The COVID-19 pandemic, in the midst of which this assessment has been carried out, is just one stark reminder of this **(Bozkurt et al., 2020; Di Pietro et al., 2020)**. In addition, much of the uncertainty characterizing our age is human-made **(Beck, 1992, 2009)**. Scientific, technological, economic, political and social developments have greatly benefited humanity but have also created a world in which risk is prevalent. What people value, such as jobs or health, is both progressively ameliorating and increasingly at stake through human actions **(Rosa, McCright and Renn, 2013)**. For example, while the world's economies are developing, the effects of economic activity on the environment and their detrimental results on the lives of many are well documented **(WG2-ch2)**. In addition, while technology is making many jobs physically less demanding

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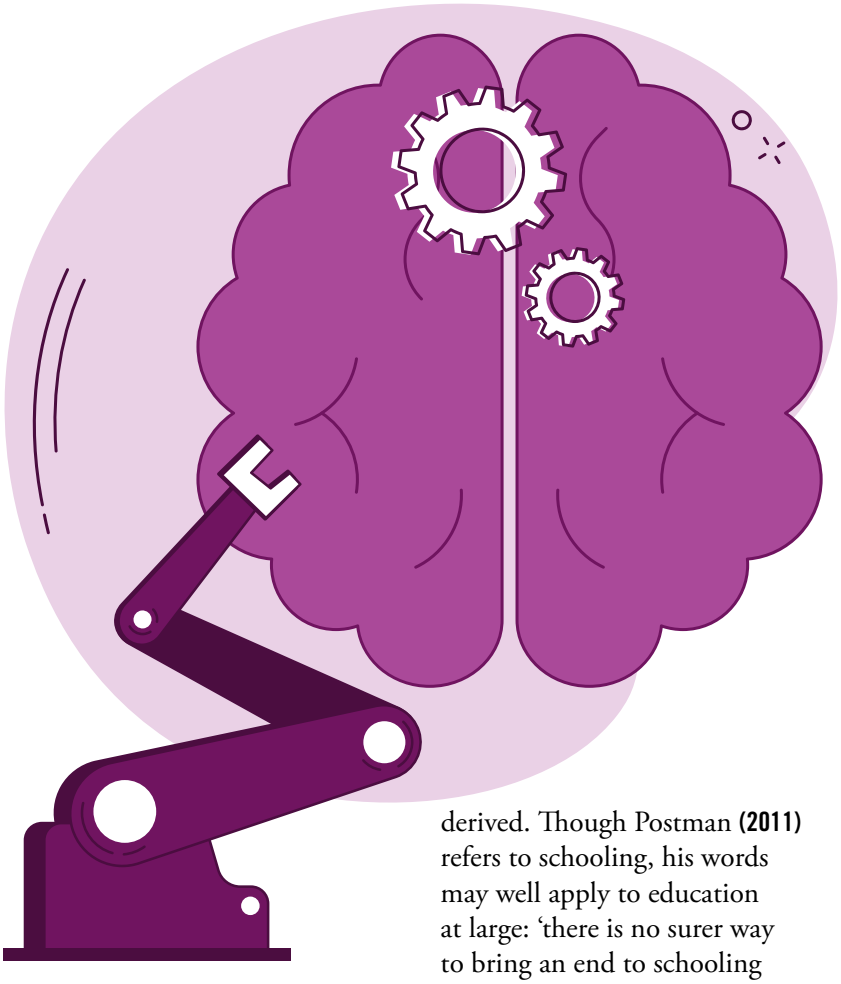
and more financially rewarding, the risk of losing jobs and the resulting job insecurity is also the result of technological innovation **(Beck, 2000; WG2-ch6)**. The growing inequalities and potential social instability that we are currently experiencing are also due to growing wealth and conscious economic decisions **(Piketty, 2014, 2020)**.

Educational policy, then, must account for future uncertainties in addition to other critical factors such as the neurobiological conditions of learning **(WG3-ch2; WG3-ch6)**, existing social, political and economic realities **(WG2-ch1)**, normative conceptions **(WG3-ch6)**, cultural diversity **(WG2-ch7; WG2-ch4)** and individual differences **(WG3-ch3)**.Future uncertainties, however, significantly complicate educational policy-making. Because the future is both uncertain and risky, education cannot simply wait for it to unfold. We must prepare for it. A common current response among educational policy-makers to future uncertainty is to enhance students' ability to adapt **(Griffin and Care, 2014; Dishon and Gilead, 2020)**. The aim is to make them more flexible and equip them with skills that will prove useful under different circumstances. This approach is exemplified in the many reforms designed to prepare students for an evolving economy and job market by teaching them what is often termed 'twenty-first-century skills' **(Voogt and Roblin, 2012; OECD, 2019)**. The seeming advantage of such an approach is that it does not rely on a clear conception of how the future would or should look like. If, for example, we teach students to adapt to the demands of the future job market by enhancing their general learning skills, we can avoid the need to know which specific jobs will be on demand a few years from now. This focus on adaptability enables us to prepare for an open-ended future.

However, while enhancing adaptability is a significant and worthy educational aim, it is not sufficient in and of itself. As many have acknowledged, education requires a vision of how we envision the present and the future, a vision from which specific educational aims could be



derived. Though Postman **(2011)** refers to schooling, his words may well apply to education at large: 'there is no surer way to bring an end to schooling than for it to have no end' **(p. 4)**. Moreover, education can and ought to do more than merely react to changing conditions and circumstances. Even if the future cannot be fully controlled or predicted it can be influenced **(Colander and Kupers, 2016)**. Education might not be able to generate the exact future we wish for but it can help to direct us towards it. How are we to overcome the unpredictability of the future and the great difficulty in determining the most desirable aims of education?

As Huebner **(1999)** argues, to realize its full potential, education must make a certain 'leap'; even though it does not know what the future will be like, education still needs to take action. Given the dynamism of the world and of education itself, the leap cannot be risk-free. Nevertheless, as Biesta **(2015)** suggests, part of education's beauty is that the risk is approached skillfully and purposively. Many contemporary educational philosophers have therefore proposed positive proactive visions that go beyond enhancing students' adaptability; visions that offer that education will do more than either react to current conditions or remain within the confines of producing 'adaptive experts' **(e.g. Morin, 2002; Hansen, 2010; Palmer, Zajonc and Scribner, 2010; White, 2011; Ergas, 2017; Hodgson, Vlieghe and Zamojski, 2018)**.

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The ISEE Assessment assesses, assimilates and critically analyses the existing knowledge and evidence necessary for adequately preparing for the future and setting a purpose for education while acknowledging that the world around us is constantly changing.

It is safe to suggest, however, that the greater our grounding in the literature and the science that rigorously examines what has been done in the past, what are the present conditions and what we expect the future to hold for us, the better we are positioned to provide a vision for education and restructure not only its aims but its practice. This is where the International Science and Evidence based Education (ISEE) Assessment enters. It assesses, assimilates and critically analyses the existing knowledge and evidence necessary for adequately preparing for the future and setting a purpose for education while acknowledging that the world around us is constantly changing.

The ISEE Assessment arrives at the question of education's purpose acknowledging the dramatic changes that have occurred since the publication of the Delors Report **(International Commission on Education for the Twenty-first Century, 1996)**. In the last 25 years, the world has changed in both predictable and unpredictable ways. Although significant progress has been made in some areas, such as reducing extreme poverty or prolonging life expectancy, at least until the COVID-19 pandemic, in other areas this is not the case. Some of the current global challenges, such as the ecological crisis, have intensified. Inequality, racism and violations of human rights prevail and are arguably more severe **(Cole, 2017; Kohli, Pizarro and Nevárez, 2017)**. And to these somewhat predictable challenges, we must add events and developments that were not foreseen and have shaken lives across the world: 9/11, the financial crisis of 2007–2008, the COVID-19 pandemic, the escalation of populism and attacks on democracy, and the rise of social media are just some of the developments and events that have changed the world and have had an impact on education **(Schüller, 2016; Hadar et al., 2020)**.

These changes are not, however, confined to the realities we face. They have also taken place amidst the knowledge and understanding we possess. In the last quarter of a century our comprehension of issues such as brain plasticity and

development, mental and physical health, as well as learning have improved in highly significant ways. In addition, we have gained significant insights into the political, social and economic challenges we face and how they relate to education. By bringing together an updated diagnosis of current challenges and new knowledge and understandings recently accumulated in various fields, we can enhance our ability to assess and inform education and its purpose.

In light of the above challenges, difficult questions arise when considering the purpose of education. These include: To what extent are current educational policies sensitive enough to the global challenges we face? Do they reflect a sufficient response to dramatic events that have occurred in recent decades? What roles do a host of scientific advancements, such as understanding of brain plasticity and development **(WG3-ch2)** and the importance of social-emotional capacities **(WG3-ch4)** play in these policies? These and several other questions suggest the need to orient education towards flourishing. The definition of human flourishing used in this assessment is provided in **WG1-ch2** but it can, for now, be described as an effort to achieve self-actualization and fulfillment within the context of a larger community of individuals, each with the right to pursue their own goals. It encompasses the uniqueness, dignity, diversity, freedom, happiness and holistic well-being of the individual within a larger family, community and population.

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1.1 .1

FROM A HUMAN CAPITAL PERSPECTIVE TO HUMAN FLOURISHING

Since the Second World War, educational policy, and in particular conceptions of education's role in development, has been advancing along two parallel lines (See figure 1). The first, and more dominant, focuses

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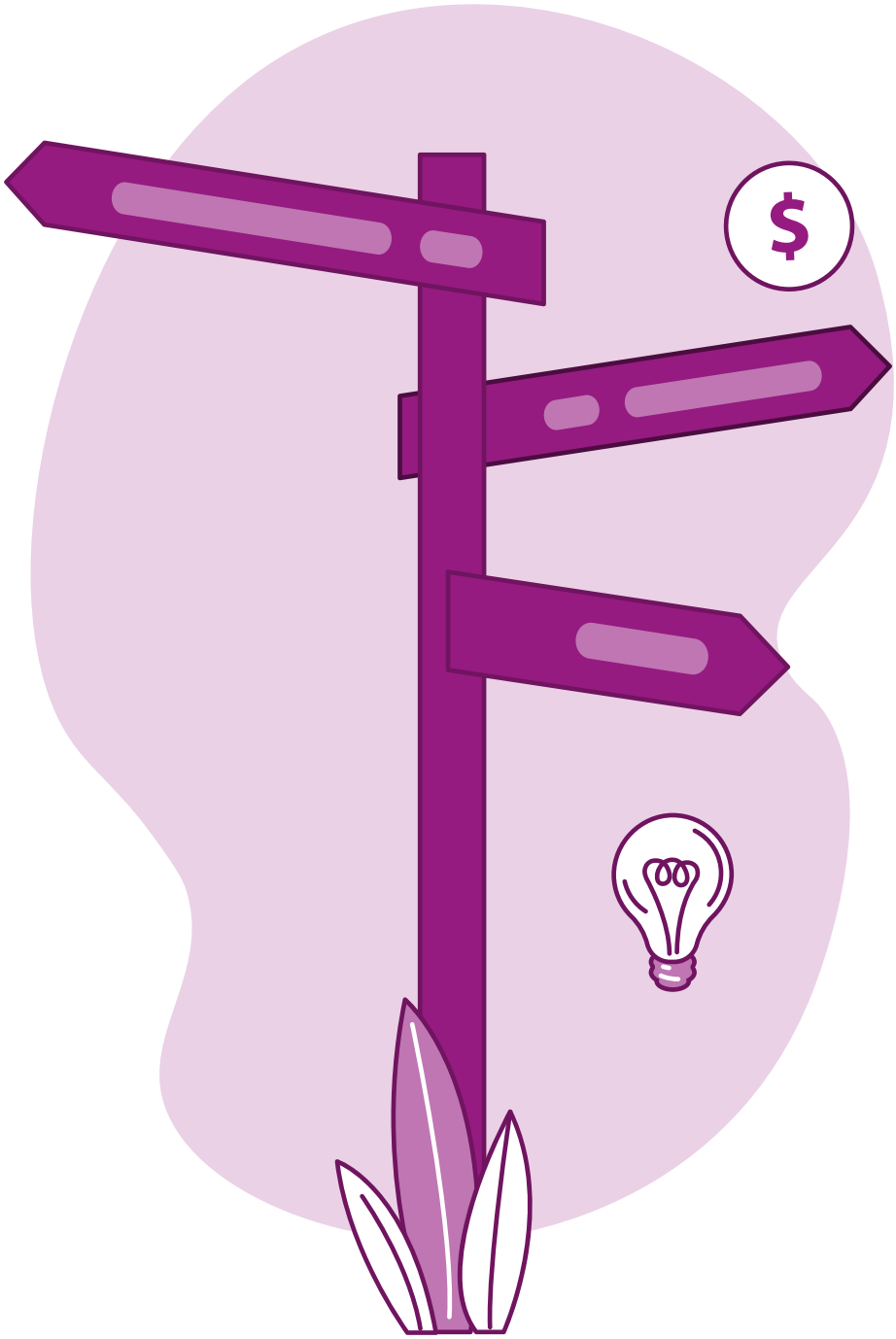
The influence of human capital on economic policy has been profound, placing education at the forefront of economic theory.

on the economy while the other takes a broader view that also encompasses political, social and personal dimensions **(Burnett, 2014)**. In the 1940s and 1950s, economic growth, measured by gross national product (GNP) and gross domestic product (GDP), became the main policy objective first in the United States (US) and Europe and then in the rest of the world **(Philipsen, 2015)**. However, since contemporary models of growth focused on the contribution of investment in physical capital to growth, education was not perceived as having a pivotal role in it **(Blaug, 1970; Rostow and Kennedy, 1990)**. This radically changed with the emergence of human capital theory in the 1960s. According to human capital theory, people's knowledge, skills and abilities that can increase production should be viewed as a form of capital that can significantly contribute, on a social level, to economic growth, and, on a personal level, to employment **(Sweetland, 1996)**. Based on this simple insight, the theory infers that education has a vital economic role. The influence of human capital on economic policy has been profound. It placed education at the forefront of economic theory, it allowed influential multinational economic organizations, such as the OECD and the World Bank, to play an active part in education, but more than anything it led policy-makers to view education in purely instrumental terms **(Blaug, 1985; Marginson, 1989; Olssen and Peters , 2005)**. Increasing human capital became a central or even the primary educational aim. Education had to train a skilled workforce that would increase productivity and consequently lead to growth **(Gilead, 2012)**.

Despite some setbacks in the 1970s, the link between education and the economy only grew closer in the 1980s. Contemporary policy emphasis on growth, privatization and markets led to a wave of reforms that stressed the importance of education for the economy **(Thorbecke, 2007)**. Education, both in developed and developing countries, came to be seen as having to cater to the needs of the economy, with the non-economic benefits of education arguably pushed aside **(Ball, 1999; Williamson, 2009)**. In addition,



the development of new growth models from the end of the 1980s reaffirmed and expanded the possible contribution of education to the economy **(Stiglitz, 1999)**. These models, which gave rise to the idea of a knowledge-based economy, stressed the importance of knowledge and especially scientific and technological knowledge, to economic growth **(Stiglitz and Greenwald, 2014)**. Following these models, education assumed an even broader economic significance because it could facilitate technological and scientific breakthroughs and contribute to knowledge accumulation and diffusion, which are all necessary for and conducive to economic growth **(Olssen and Peters, 2005)**. The primacy of economic growth and economic considerations as policy objectives, together with the rising recognition of the role that education can play in them, has led many nations, international organizations and policy-makers to focus on the economic aims of education while neglecting or marginalizing other educational objectives. Aims such as furthering democratic equality, enabling

social mobility, advancing global and democratic citizenship, promoting personal autonomy and advancing human culture have become somewhat secondary **(Labaree, 1997; Kitcher, 2009; Nussbaum, 2010; White, 2011)**.

However, there has also existed an alternative strand, which very much reacts to the one presented above and places greater emphasis on the non-economic and non-instrumental aims of education (see Figure 1). The notion that education is a basic human right that must be provided to all, which is mainly advanced by UNESCO, has had a tremendous influence on education provision worldwide **(International Commission on Education for the Twenty-first Century, 1996; World Education Forum, 2000; UNESCO et al., 2015)**. Although increasing human capital and education as a right often go hand in hand, there are important differences between them and they can potentially even conflict **(Robeyns, 2006)**. Firstly, the emphasis on rights goes beyond economics and points to the contribution of education to 'dignity; social justice; inclusion; protection; cultural, linguistic and ethnic diversity' **(UNESCO et al., 2015, 7)**. It encompasses aspects of life that are not emphasized or even addressed by human capital theory. Secondly, the rights discourse provides a non-instrumental and unconditional rationale for education. For example, while human capital theory will find it hard to justify providing education for someone who is not likely to be economically productive due to physical limitations, the notion of rights can easily do so **(McCowan, 2011)**. In addition, the emphasis on the economic role of education has also been challenged by other forms of discourse. In the 1970s, the focus on economic growth was countered by the idea that human development requires the meeting of basic human needs, especially of the poor **(Gasper, 2004; Stewart, 2006; Thorbecke, 2007; Williams, 2014)**. Inspired by these ideas, from the 1970s onwards, Amartya Sen devised the capability approach, which stressed the importance of not only economic conditions, but also individual,

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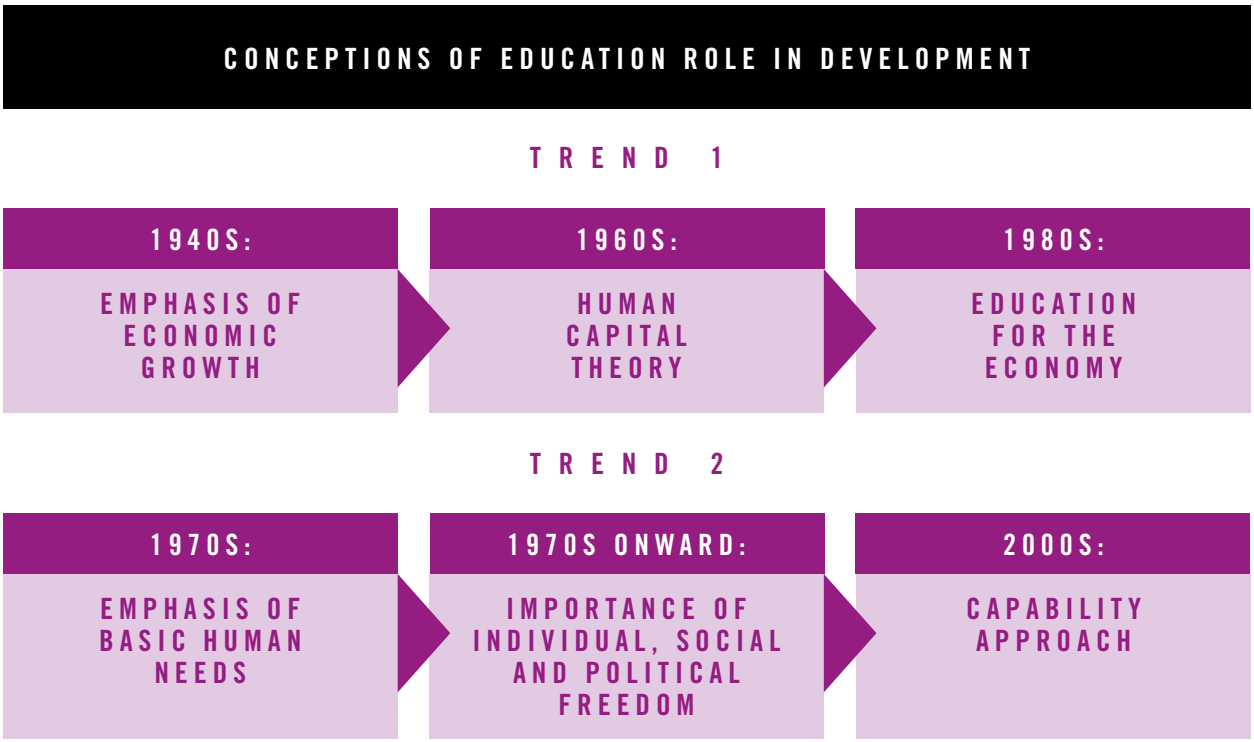

Figure 1. Conceptions of education's role in development

social and political freedoms **(Sen, 1980, 1992, 1999, 2000)**. Sen draws a distinction between functioning, which is what people do or have, and capabilities, which are the range of possibilities people can choose their functioning from. The distinction between capabilities and functioning, it is important to stress, does not only apply to the economic domain but is valid in many areas of life. Sen argues that focusing on functioning is not enough and that policy must also strive to enlarge people's capabilities. For example, examining people's economic condition might not accurately reflect their situation unless we also consider the range of possibilities and freedoms they have to improve it. The capability approach, which was further developed by Nussbaum and many others, had and still has a significant impact in educational circles **(Nussbaum, 2001; Robeyns, 2006; Walker and Unterhalter, 2007; Crocker, 2008;Khader, 2011)**. Moreover, a growing policy concern with advancing human development and not just economic progress placed education as one of three major components for improving aspects of people's lives. This change, it

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is important to note, was fuelled by a growing recognition of the limitation of economic growth and can be linked to the rise of the capability approach.

Over the years, human capital theory has not remained stagnant and has evolved in significant ways, partly as a result of the criticisms levelled against it by competing approaches **(Hanushek, 2013; Stiglitz and Greenwald, 2014; Burgess, 2016; Angrist et al., 2021)**. For example, the non-economic benefits of human capital have gained increased significance **(McMahon, 2000; OECD, 2001)**. Nevertheless, despite the rise of alternative approaches and changes in human capital theory itself, in education policy, the focus on growth and employment has prevailed. In 1996, the Delors Report made a strong case to transfer the educational emphasis from economic to broader forms of development, but despite its influence it did not reverse existing trends **(International Commission on Education for the Twenty-first Century, 1996; Tawil and Cougoureux, 2013; Elfert, 2015)**. Since economic growth measured by GDP remains the main policy objective in most parts of the world, education was and in many ways still is mainly viewed through an economic lens.

In the last two decades, however, the notion that education should primarily focus on economic matters has again been challenged. One significant reason for this is changing perspectives on the relationship between economic and other forms of development. Traditionally it was assumed that a trade-off existed between economic and social development **(Sen, 1997; Mkandawire and Unies, 2001)**. It was thought that focusing on social development would obstruct economic growth since the latter might require harsh measures. As a result, it was commonly held that economic growth must first be secured before other forms of development could be sought **(Sen, 1997)**. Moreover, it was maintained that only after a crucial amount of growth had been achieved could additional aspects of human development be more easily improved. For

example, Kuznets **(1955)** argues that in the early stages of rapid economic growth social equality will rise only to be reduced later on as the economy continues to develop. Similarly, it was held that economic growth will initially lead to environmental degradation that can be amended once there are enough resources **(Barbier, 1997; Constantini and Monni, 2008)**. However, there is now mounting evidence and an increased understanding – also among economists – that non-economic aspects of human development, including social, personal, political and moral elements, could and should go hand in hand with economic growth **(Sen,1997; Stiglitz, 1998, 2007; Ranis, Stewart, and Ramirez, 2000)**. In addition, it has become evident that many non-economic elements such as trust, values and information networks can facilitate economic growth **(Whiteley, 2000; OECD, 2001; Chou, 2006)**. Since it is clear that education can have a profound impact on many aspects of life, it is held that it should go beyond human capital and economic growth **(McMahon, 2000; Brighouse, 2006; Harber, 2014; Marginson, 2019)**. In doing so education can directly contribute to both growth itself and other dimensions of human development.

Another and somewhat more fundamental reason for going beyond the economic aims of education is a growing recognition of the limits of economic growth, especially when measured in GDP. There is accumulating

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There is accumulating empirical evidence that economic growth does not necessarily have a positive impact on people's levels of subjective well-being and life satisfaction.

empirical evidence that economic growth does not necessarily have a positive impact on people's levels of subjective well-being and life satisfaction **(Easterlin, 1974; Blanchflower and Oswald, 2004; Layard, 2011; Diener et al., 2018)**. There is also now a better understanding of the negative consequences of growth on the environment, economic equity, social cohesion and various other domains **(Raworth, 2017; WG2-ch2)**. Moreover, emerging research suggests that an emphasis on economic growth as a key measure of human well-being, at the expense of subjective and other forms of objective well-being, is a primary contributor to the increasing prevalence of unhappiness, insecurity and poor interpersonal relationships **(Rogers et al., 2012)**. Economic globalization has led to a huge increase in consumerist values, and excessive use of materials and natural resources **(UNDESA, 2005)**, often at the cost of human values and relationships. Urbanization has forced young working adults away from local communities in search of economic growth, a consequence of which is the loss of community social structure and relationships, value systems and cultural practices, and ultimately well-being in flourishing **(Bhugra and Becker, 2005)**. It has also led to increased inequality in the socio-economic status and per capita income between the richest and poorest countries. As a result, there is also increasing poverty and unemployment, which has forced many into precarious situations like human trafficking.

Apart from all these factors, the most striking indicator of diminished well-being is in the area of mental and psychological wellness **(Eckersley, 2011)**. The World Health Organization's **(WHO, 2004)** World Mental Health Survey revealed a huge variation in the prevalence of mental illness with disorders worldwide affecting from 6% to 27% of individuals in the countries surveyed. A more recent survey **(WHO, 2017)** on the mental health status of South Asian adolescents aged between 13 and 17 years found that 10% to 20% of adolescents had mental health issues including anxiety, depression, self-harm and suicide.

The growing understanding of the non-economic benefits of education for human development, together with increasing skepticism towards the value and desirability of economic growth in its current form, demand that we think differently about education.

While the increase in mental health problems has to do with more than a socio-educational focus on economic growth, values of competitiveness, workaholism and consumerism, all of these potential consequences of a focus on economic growth are likely to lead to high levels of stress, which are known to affect mental and physical health **(Sapolsky, 2017)**. In addition to the dramatic effects of the COVID-19 pandemic on mental health **(Gao et al., 2020; Pfefferbaum and North, 2020)** these findings challenge the association between economic growth and human well-being and suggest the need to go beyond mere materialistic wealth as the primary driver of human well-being. As a result, there is an ongoing search for alternative measures of progress and development **(Stiglitz, Sen and Fitoussi, 2009)**.

The growing understanding of the non-economic benefits of education for human development, together with increasing skepticism towards the value and desirability of economic growth in its current form, demand that we think differently about education. The limits of an educational approach that focuses solely on human capital and the economy are evident. There is a need for a broader conception of education that goes well beyond economics and focuses on flourishing.

1.1 .2

WHY FLOURISHING? WHY NOW?

The notion of human flourishing has been discussed throughout history. It is found in various wisdom traditions, including those of East Asia, Ancient Greece, and aboriginal and other native traditions. It plays a central part in all major religions and is just as significant in secular and modern strands of thought. The idea that education should promote flourishing is not new either. Throughout history many educational thinkers and educators, including Plato,

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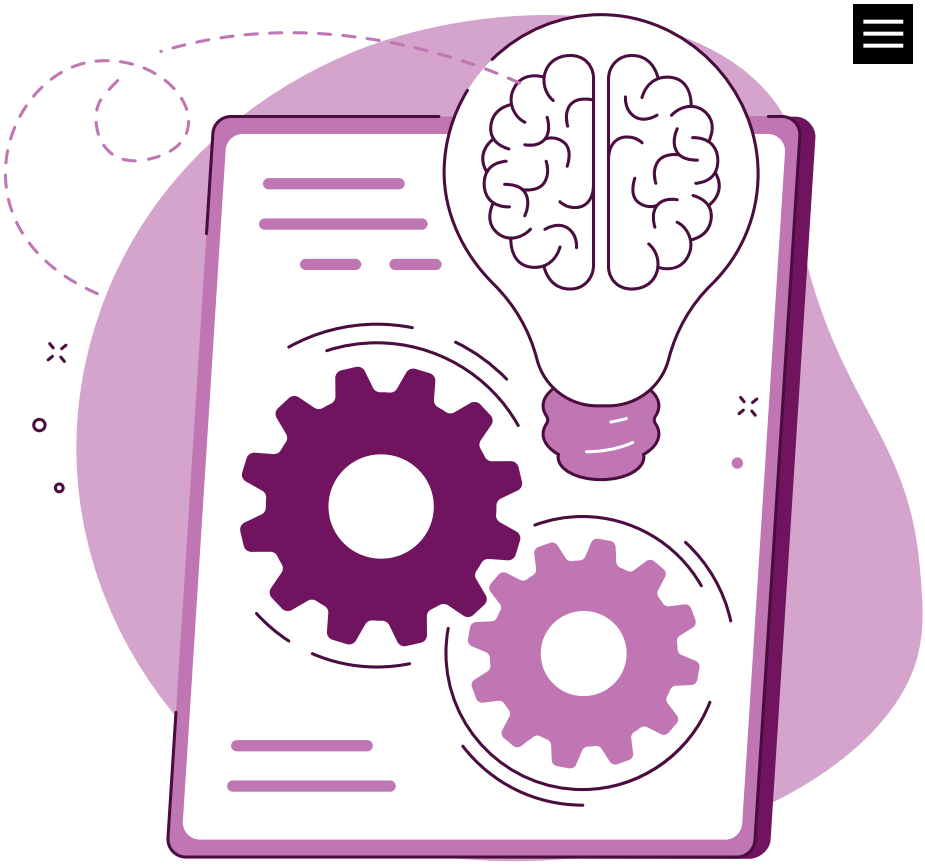
Although flourishing as an educational aim has been debated throughout history, there are good reasons why the ISEE Assessment report has flourishing at its core.

Comenius, Rousseau and Freire, have made enhancing flourishing a central educational aim. While there are various and often contradicting interpretations of what makes a person flourish, few challenge the idea that flourishing is a worthy objective. Even educational policy that focuses on human capital and service to the state can be directly linked to flourishing. It assumes that either economic well-being and economic growth or a strong state are instrumental in achieving a flourishing life.

Although flourishing as an educational aim has been debated throughout history, there are good reasons why the ISEE Assessment report has flourishing at its core. Firstly, as we have seen, flourishing in educational policy-making has been looked over in favour of approaches that focus on economics and social utility. The growing emphasis on what can be viewed as means for achieving flourishing, such as economic growth, scientific and technological advancement, or increased state power, has obscured their ultimate goal. What could be seen as partial means for flourishing have become ends in themselves. This, however, has often led to measures that hinder rather than promote flourishing. Moreover, current educational policy often seems to focus only on a few partial measures for increasing flourishing while neglecting significant ones **(Stiglitz, 1998; Brighouse, 2006)**. Secondly, today we know much more about flourishing than we did a few decades ago. Most importantly, we now have the scientific evidence to support and enable the cultivation of flourishing in human beings.

Central to this new knowledge is the biological aspect of human flourishing and an understanding of the central role the human brain plays in the development and cultivation of the human flourishing mindset. The basis for this is the finding that the brain is malleable and thus amenable to change **(Merzenich and Jenkins, 1995)**. Neuroscience research has shown that psychological well-being can be cultivated through intentional mental training



and has the potential to drive structural changes in the brain. In other words, flourishing can be cultivated or trained **(Dahl et al, 2020)**.For instance, the positive effects of regular training in the cultivation of well-being and flourishing in Tibetan Buddhist monks shows that regular meditation practices produce not just behavioural but also structural changes in the brain that promote increased well-being **(Davidson and Lutz, 2008)**. Further, recent advances in cognitive and affective science demonstrate that well-being and flourishing are skills that can be cultivated like literacy and numeracy. We thus posit that education systems must be the explicit training of knowledge, skills, practices and behaviours that enable individuals to flourish.

Evidence from neuroscience also shows that enriched environments provide cognitive and emotional nurturing, both foundational factors for successful learning, while inadequate cognitive stimulation leads to poor cognitive and emotional development and learning. For instance, children's math-related skills are enhanced when they engage in math-story time with their parents **(Berkowitzat, 2015)**, while children raised in stark poverty show reduced surface

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areas of the brain supporting language, reading, executive function and social skills **(Lukowski, 2010)**. Similarly, advancements in social and affective neuroscience have significantly enhanced our understanding of the crucial role of nurturing and safe environments, and in the social-emotional nature of learning and in advancing well-being **(Immordino-Yang, Darling-Hammond and Krone, 2019)**.Furthermore, it has been shown that emotional neglect can induce severe disturbances in multiple aspects of social and emotional functioning, with the most dramatic effects in the amygdala **(Casey, 2015)**, a structure of the brain critical for motivation and anticipating reward, and therefore involved in all learning. Neurobiology has made substantial leaps in its ability to explain human behaviour, thought and decision making, demonstrating clearly how excessive stress impedes mental well-being. **(Sapolsky, 2017)**. Children exposed to high levels of stress on a daily basis **(Matthews & Gallo, 2011)** not only exhibit reduced functional and structural maturation of the hippocampus and the frontal lobes **(Davidson & McEwen, 2012)** but also effects on the amygdala, which contains receptors to cortisol, the stress hormone **(Blair & Raver, 2016; WG2-ch5)**. However, it is not only our individual stress that is at stake; manifesting the social nature of the brain, research demonstrates that stress is contagious. Measurement of salivary cortisol in teachers and students has shown that teachers' occupational stress is linked to students' physiological stress regulation **(Oberle and Schonert-Reichl, 2016)**. Functional brain imaging, including studies of the brain's default-mode network, has provided us with significant insights into mental health, executive functioning, ethical decision making and emotional intelligence, which have various implications for education **(Ergas and Berkovich-Ohana, 2017; Immordino-Yang, Christodoulou and Singh, 2012; Jazaieri et al., 2016; WG3-ch2; WG3-ch3; WG3-ch5**).

Thus, it is not only research that demonstrates what stands in the way of our development into

flourishing human beings but also research into ways in which flourishing can be proactively pursued that support our proposal to promote flourishing as the purpose of education **(WG3-ch4)**. Findings show that a focus on effective social and emotional learning (SEL) interventions and programs contributes not only to student mental health and reduction in dropout rates and risk behaviours, but also to academic achievement **(Durlak et al., 2011)**. Positive psychology has developed substantially over recent decades, providing a variety of ways in which to enhance flourishing within and outside schools **(Waters, 2011; Burckhardt et al., 2016)**. Comprehensive meta-analyses of mindfulness-based interventions implemented in schools have generally had positive results **(Carsley, Khoury and Heath, 2018; Zenner, Herrnleben-Kurz and Walach, 2014)**. At the same time, schools benefit most from systemic approaches in which innovation and change are introduced coherently throughout the school organization and its curricula **(Miller et al., 2018; Harpaz and Grinshtain, 2020)**. Hence when SEL practices are introduced as short-term interventions, rather than through holistic approaches that address the school as a whole, results may be hard to sustain over time **(Sheinman et al., 2018; Ergas and Hadar, 2019)**.

This is just a brief overview of what is contained in subsequent chapters, and is offered to provide initial support for our claim that we now know more about flourishing, to the point of providing us with the grounds for the endeavor undertaken in this report. Coming decades will no doubt reveal much more than we currently know. Thus, it is our hope that in this report we will also provide ideas for orienting future scientific research that will be based in an education that has shifted toward the pursuit of flourishing.

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1.2 Outline of Working Group 1 and its methodology

...there is a need for educational systems to embrace a broader perspective that positions education in and for flourishing at its centre...

Building on the above argument, namely, that there is a need for educational systems to embrace a broader perspective that positions education in and for flourishing at its centre, our task becomes one of definition, conceptualization, elaboration, substantiation, grounding and operationalization. This begins first and foremost with the very concepts of education and flourishing. Without a clear definition of what is meant by these concepts it is unlikely that we will be able to provide anything of substance for UNESCO's Member States that can assist in policy-making. Hence, following the project's nature as an evidence-based assessment, the task of the next chapter **(WG1-ch2)** is to develop a grounded definition of both of these concepts.

Definitions ground concepts. The term 'assessment' is inspired by Joseph Schwab's **(1982)** conception of curricular deliberations. An assessment in **WG1-ch2** is a deliberation process in which experts from different fields, in a number of disciplines and from different regions around the world, consider various perspectives on a certain concept/domain, and based on past literature, theories and deliberations, arrive at an informed definition. Grounding in this sense does not pretend to be fully objective and remains cognizant of the fact that those who engage in the grounding are humans. However, this grounding does aspire to be sensitive to cultural diversity within and across countries, and seeks to reach a level of concreteness that provides the project and the UNESCO Member States with enough to work with, along with ample room within which to navigate.

WG1-ch2 begins by locating flourishing among a number of close or related concepts such as happiness, subjective well-being, eudaimonic well-being and thriving. From there the chapter offers a general overview of how flourishing is understood in different key disciplines including Philosophy, Psychology, Neuropsychology, Economics and Ecology. Next, the chapter introduces this project's definition of flourishing and explains and elaborates upon central terms within the definition, such as 'optimal continuing development', 'potential', 'living well', 'meaningful' and 'satisfying'. The definition offered does not stem from or relate to a particular theory of flourishing but rather draws on many concepts and perspectives. The next part of the chapter discusses education, emphasizing education as relationships and how this applies to teaching, learning and assessment. From there the chapter turns to connect flourishing and education and argues that the two are intertwined. Education, it is maintained, is essential for flourishing and flourishing can help to improve education. The chapter concludes by pointing to how democracy and cosmopolitanism can contribute to flourishing.

1

CHAPTER

The chapter presents us with important advances that have emerged in the past decades that support the ISEE Assessment as an attempt to recruit such knowledge to the advancement of education in and for flourishing.

WG1-ch3 presents a broad exposition of the contribution of science to the advancement of flourishing by reviewing various breakthroughs in neuroscience, psychology and biology over the past two decades, as well as previous theories that also received further support during this period. We now know more about brain development, genetics, the interplay between the brain and its environment, the crucial role of nurturing relationships in early childhood and throughout life, mental health and trauma, and the fundamental role of social-emotional skills in our ability to conduct ourselves wisely and kindly in the world. Studies in these and other fields enable us to say with growing confidence that there are certain conditions, practices, mental states and capacities that are conducive to human flourishing. **WG1-ch3** thus presents us with important advances that have emerged in the past decades that support the ISEE Assessment as an attempt to recruit such knowledge to the advancement of education in and for flourishing. Some of the strands it outlines are later developed in the various **WG3** chapters which focus on the science and experience of learning. The chapter also discusses some of the problems concerned with measuring flourishing and their implications for research in education.

Just as we know more, there is much that we do not know. Further, much of the knowledge gained from science does not directly translate into educational practice. The aim of **WG1-ch4** is to create a bridge between flourishing and education advanced in **WG1-ch2** and the scientific insights found in **WG1-ch3** regarding what contributes to flourishing. However, translating general notions, concepts and ideas into education and operationalizing them is not as straightforward as it might seem. The field of education has some distinct features and these have to be taken into consideration. One significant aspect of education is that educational systems, on all levels, are highly complex, hard to control and often

unpredictable. The chapter begins by acknowledging the nature of education as a dynamic system. It goes on to argue that education for flourishing must be systematic and multi-scalar, sensitive to context and informed by an interdisciplinary approach.

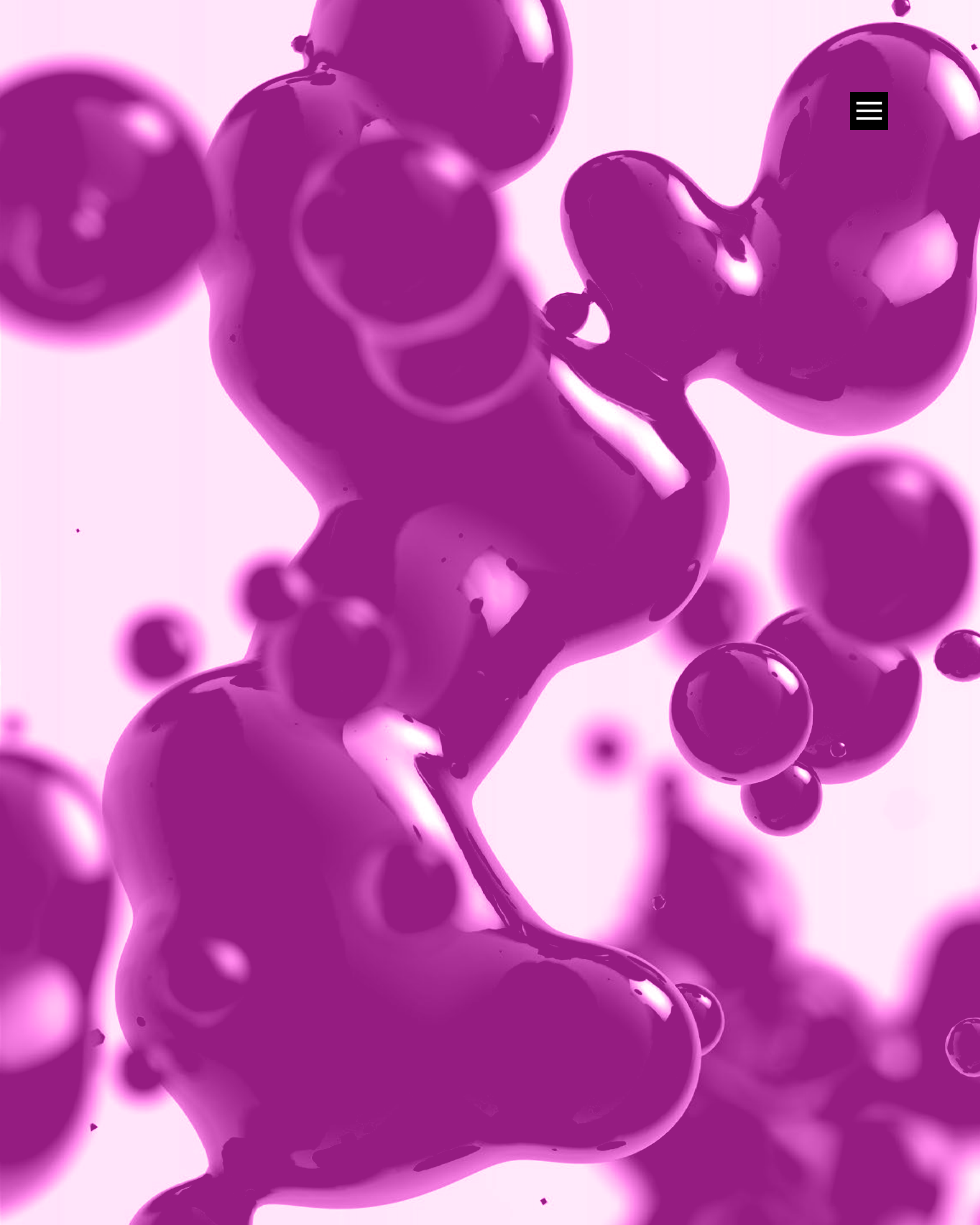
The chapter then discusses how education can best contribute to promoting flourishing. It presents two models. The first divides the educational process for flourishing into three central components: (1) curriculum, which encompasses teaching and assessment; (2) learning; and (3) flourishing aims and manifestations. The second model, which is the main contribution of the chapter, presents a novel curricular framework for education in and for flourishing. It suggests that education can promote flourishing through six curricular domains: environment, culture, society, technology, interpersonal and self. The chapter describes each of the domains and briefly explains their potential contribution to flourishing. It is important to stress that the list of domains is not exhaustive, nor are the curricular domains siloed; rather, interrelationships between the curricular domains yield a variety of additional curricular possibilities. Further developing the model, the chapter then builds on the Delors Report's **(International Commission on Education for the Twenty-first Century, 1996)** four pillars of education, but extends them to six learning trajectories that reflect development in these curricular domains – learning to: know and think; do and evaluate; be and become; learn; live together; and live with nature. The last part of the chapter connects the curricular domains with the conditions and capacities conducive to flourishing.

The second model presents a novel curricular framework for education in and for flourishing and suggests that education can promote flourishing through six curricular domains - environment, culture, society, technology, interpersonal and self.

WG1-ch5 moves from a macro level to a more micro one, from the level of policy to that of schools. Building on the concept of education advanced in **WG1-ch2**, it discusses education for flourishing in schools in terms of relationships. Proposing a categorization that builds on the curricular framework proposed in **WG1-ch4**, it stresses the significance

of three types of relationships: (1) relationships with other people (or interpersonal relationships); (2) relationships with ourselves (or intrapersonal relationships); and (3) relationships to knowledge, subject matter or curricular content. Each of the three is not seen as standing on its own but rather as closely interconnected with the other two. In the chapter, the three types of relationships are examined from a variety of perspectives but remain focused on school and class levels.

WG1-ch5 starts by reviewing some philosophical ideas pertaining to these relationships and their ideal manifestations. Most of the chapter, however, is devoted to what we now know about these relationships in education and schools and how these should be designed to promote flourishing. Drawing on empirical research on a variety of subjects, such as teacher–student relationships, student–student relationships and students' conceptions of curricular knowledge, the chapter provides valuable insights into a number of central questions relating to flourishing in schools. Clearly echoing claims made in **WG1-ch3**, it points to, among other things, the significance of SEL and mindfulness for advancing flourishing in schools and discusses the conditions necessary for them to succeed. In addition, the chapter analyses the significance of school culture for increased flourishing and suggests ways to make it more conducive to this aim. From there the chapter explores the well-being and flourishing of teachers. It proposes ways in which these could be improved and elaborates on their significance. The chapter concludes by providing a compelling example that highlights the potential ability of schools to contribute to the flourishing of students, staff and the community.



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