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Global Guide

of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education

Series

Volume I

Conceptual and Technical Framework

With a preface by Edgar Morin

An initiative of

Education Relief Foundation

In collaboration with

Global Guide of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education (Global Guide Series)

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Caminante, son tus huellas
el camino y nada más;
Caminante, no hay camino,
se hace camino al andar.

– Antonio Machado

Wanderer, your footsteps are
the road and nothing else;
Wanderer, there is no road,
the road is made by walking.

– Antonio Machado

The pedagogy of the oppressed, animated by authentic, humanist (not humanitarian) generosity, presents itself as a pedagogy of humankind.

– Paolo Freire

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Abbreviations

BIE	Balanced and Inclusive Education
CEWG	Consultative Expert Working Group
ERF	Education Relief Foundation
Global Guide	Global Guide of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education
SDG	Sustainable Development Goal

Glossary

Balanced and Inclusive Education	Education based upon the four pillars of intraculturalism, transdisciplinarity, dialecticism, and contextuality
• Intraculturalism	Approach based upon in-depth cultural introspection for a more complete understanding of the inter-indebtedness and interdependence of cultures
• Transdisciplinarity	Integrative multi-perspective approach based upon interconnecting both academic as well as non-academic knowledge domains for a complex and holistic understanding of the world
• Dialecticism	Interactional and synergetic approach based upon problem-posing dialogue and critical exchange, for free and critical thinking through the proactive participation of learners
• Contextuality	Context-centred approach based upon the integration and adaption to the realities, values, and interpretive frameworks of the learners, to develop their sense of co-ownership and co-creation
Cultural introspection	In-depth study of one's culture; practice of analysing one's cultural belonging
Knowledge domain	Cumulative information associated with a particular area of knowledge, whether academic or non-academic
Protagonise learners	Process that enables learners to become pro-active agents (protagonists) in their education

Note from the Editor

During 2017, the Education Relief Foundation (ERF), in cooperation with its local partners, organised a series of Regional High-Level Stakeholders Consultation Meetings, covering South East Asia, Africa, Latin America and the Caribbean, and Europe and North America. These meetings had three objectives: 1) introducing the concept of Balanced and Inclusive Education (BIE) as conceived, defined, and developed by ERF, including its four pillars (i. intraculturalism; ii. transdisciplinarity; iii. dialecticism; iv. contextuality); 2) fostering dialogue and exchange on BIE's relevance to different regional, national, and local contexts; 3) collating the recommendations on BIE of the participating regional stakeholders.

On 8 December 2017, ERF convened the first international conference on Balanced and Inclusive Education (ForumBIE 2030) at the United Nations in Geneva. Constituted of stakeholders as diverse as the International Bureau of Education (IBE-UNESCO), the Unión de Responsabilidad Social Universitaria Latinoamericana (URSULA), and the Uganda National Curriculum Development Centre (NCDC – Ministry of Education and Sports), amongst others, the Forum's delegates resolved to:

> Solemnly endorse the initiative launched by the Education Relief Foundation (ERF) on Balanced and Inclusive Education (BIE) as follows:
>
> 1. Hereby acknowledge the accomplishments resulting from the regional stakeholders' meetings organised during 2017 by the Education Relief Foundation (ERF) and its partners, namely the Southeast Asian Ministers of Education Organisation (SEAMEO), the Nigerian Academy of Science (NAS), the Centre for Applied Linguistics (CAL), Globethics.net Foundation (GE.net), and the Geneva School of Diplomacy as global contributions to our efforts in moving the SDG4 agenda forward in the regions of Southeast Asia, Latin America, Africa, and the Global North;
> 2. Take note of the recommendations collated from the above mentioned regional stakeholders' meetings on youth development through Balanced and Inclusive Education by the adequate training of teachers with Balanced and Inclusive Education (BIE) pedagogies to support culturally responsive school environments; and
> 3. Hereby endorse the necessity of developing a global guide for ethics, principles, policies, and practices for the delivery and uptake of ERF's Balanced and Inclusive Education methodology, based on ERF's four pillars of

Balanced and Inclusive Education, which support the principles of *intra-culturalism*, *transdisciplinarity*, *dialecticism* and *contextuality*.

This publication is the result of ERF's collaboration with its Consultative Expert Working Group (CEWG) and other leading international experts to deliver on its commitment to prepare a Global Guide for Balanced and Inclusive Education within a year of the First ForumBIE 2030.

It was determined that the *Global Guide of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education* would need to be a series of publications (Global Guide Series) to reflect truly the essence of Balanced and Inclusive Education and provide the most comprehensive and effective framework for operationalisation to stakeholders, across sectors, regions, and contexts. This volume is the first publication within the Global Guide Series. It must, accordingly, be approached as a non-exhaustive, broad conceptual and technical framework which will be used to create and develop a series of pilot projects. The pilot projects will be run in cooperation with relevant international, regional, and national stakeholders to: a) revise the framework of this volume in a second edition; b) publish, in subsequent volumes, contextualised and expanded versions of the framework; and c) articulate mechanisms for implementation and scaling.

This volume is structured in the following way:

Chapter I reflects on the deficiencies and needs of our current education systems and how the pillars of BIE provide the necessary framework to rethink and overhaul education to be truly inclusive;

Chapter II is divided into four parts, one for each pillar. Each part comprises a:

Definition: a sentence synthesising the essence of the pillar;

Article: a conceptual reflection on the considered pillar, each by a different author; (in the case of contextuality, two articles were commissioned, one providing a view from the Global South and the other from the Global North);

Overview: a concise text explaining the considered pillar;

Guiding Principle: a precept to orient the pillar in its implementation;

Technical Framework: a logical framework structured as follows:

Overall Goal;

Outcomes;

Outputs: categorised under *Curriculum* or *Pedagogy;*

Self-assessment tool in two parts:

Outputs Achievement to identify the achievement of any outcome's given outputs;

Level of Outcomes Alignment which, depending on the combination of outputs achieved, will result in one of four levels of alignment: *Minimal, Partial*, *High*, or *Full*.

Chapter III explores the ethical dimension of BIE and its potency as a means to transform our conception of ethics in the face of a complexifying world, from the social to the environmental crisis.

Postface explores the concept of Balanced and Inclusive Education as it relates to Higher Education and provides an instance of Balanced and Inclusive education governance through university social responsibility.

An additional logical framework is also provided as *Annex I*. The Technical Framework for each pillar constitutes a broad framework defined until outputs. Annex 1, on the other hand, is the template logical framework to be used for the articulation of contextual activities and indicators when developing pilot projects. Whilst the logical framework in Annex 1 is relevant to the planning, implementation, monitoring and evaluation of the activities related to a given pilot project, the Technical Frameworks included in this volume will enable the assessment of the level of alignment of these activities against each pillar's outcomes.

The reader may, depending on their requirements, approach this volume in different ways. For the purpose of developing a pilot project, it would suffice to read Chapter II, focusing on *Definition*, *Overview, Guiding Principle*, and *Technical Framework* as well as *Annex I*. For the intellectually curious, focusing on the articles of Chapter I, II, and III would be appropriate. We have, however, structured the volume in this integrated, cyclical manner as we suggest that it is in this sequential route that the reader will gain the most comprehensive understanding of Balanced and Inclusive Education. ■

Preface [Original French with English translation]

Version Française

L'enseignement doit concilier quatre missions fondamentales: anthropologique, civique, nationale, humaniste. Anthropologique, car non seulement la culture scolaire doit parachever l'humanisation de l'enfant, mais elle doit aussi aider chacun à développer le meilleur de lui-même, l'être humain étant capable du meilleur comme du pire, de s'abaisser ou de s'élever — par là même l'enseignement prend un caractère éthique. Civique, car il s'agit de former des citoyens capables à la fois d'autonomie individuelle et d'intégration dans leur société. Nationale, car l'école doit contribuer à améliorer la qualité de vie et de pensée de la Nation: au fond, l'école doit permettre à chacun de vouloir réaliser ses aspirations, mais toujours au sein d'une communauté — c'est pourquoi je dirais qu'elle remplit pleinement son rôle lorsqu'elle parvient à enseigner conjointement l'idée de responsabilité personnelle et de solidarité à l'égard d'autrui. Enfin la mission humaniste: l'humanisme n'est pas seulement la reconnaissance de la pleine humanité de toute personne, quelle que soit son origine, son sexe, sa croyance; c'est en notre siècle la conscience de la communauté de destin de toute l'humanité, de l'interdépendance de toutes ethnies et nations, la participation de chacun à la grande aventure de l'espèce humaine à l'ère planétaire, et, ici nous retrouvons l'éthique présente dans la mission anthropologique de l'enseignement, de participer à la lutte ininterrompue entre les forces d'association, d'union, d'amour et les forces de rupture, désunion, désintégration et mort.

Ici, il n'y a pas à choisir entre un savoir humaniste et un savoir-faire utilitariste, il faut concilier l'un et l'autre. J'ajoute que l'enseignement ne doit pas seulement s'adapter aux besoins professionnels ou techniques d'une société; il doit également adapter les besoins d'une société à ceux de la culture. S'inscrire dans son époque est nécessaire (ne serait-ce que pour la contester), mais cela doit toujours être contrebalancé par l'accès à une culture multiséculaire et multimillénaire, qui passe par les humanités, la littérature, l'histoire, les langues et connaissances anciennes.

Il est non moins évident que l'enseignement détermine l'usage aisé et pertinent de sa propre langue, y compris lorsque celle-ci est minoritaire. Mais il doit aussi comporter la sauvegarde des valeurs de sa propre culture, notamment les valeurs de solidarité et communauté, tout en effectuant l'ouverture sur les autres cultures et sur le monde.

Cette ouverture universaliste, qui ne peut exister durablement que par des racines profondes, exprime inévitablement la nécessité d'introduire dans les programmes des thèmes aidant l'étudiant à affronter les grands problèmes personnels et civiques de

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son existence. Il s'agit donc d'une institution scolaire non seulement ancrée dans la communauté, et tournée vers le monde, mais aussi d'une éducation ouverte à la vie, qui prépare à la vie au-delà des savoir-faire techniques requis par le marché du travail. Il faut alors repenser l'enseignement afin qu'il réponde mieux qu'il ne le fait à l'exigence formulée par Jean Jacques Rousseau : « enseigner à vivre ».

Par conséquent, il est important d'inscrire dans les programmes un aspect ubiquiste de la vie: l'affrontement à incertitude, à l'erreur et à l'illusion. L'erreur et l'illusion tiennent au fait que toute connaissance est une traduction et reconstruction cérébrale-mentale à partir de données sensorielles, d'où le risque inhérent d'erreur propre au processus de connaissance. De plus, tel qu'indiqué par Shannon dans sa théorie de la communication, la transmission d'une information d'un émetteur à un récepteur risque toujours d'être perturbée ou brouillée par le « bruit ».

Puisque toute erreur et toute illusion peuvent avoir des conséquences nocives voire fatales, bien que parfois elles puissent être fécondes – comme dit le poète Voznessenski « tu cherches/l'Inde/Tu trouves/L'Amérique » –, il faut un enseignement spécifique sur les risques d'erreur inclus dans tout processus de connaissance. Mais il s'agit également, si ce n'est principalement, de montrer que l'erreur vient de la réduction d'une réalité complexe à un seul élément ou bien d'un manichéisme qui efface les complexités. L'affrontement à l'incertitude, à l'erreur et à l'illusion c'est donc non seulement le problème de chaque individu dont le futur est incertain à chaque étape de sa vie, mais c'est aussi celui de l'humanité, emportée dans les cours impétueux et incertains de la mondialisation.

Je propose également d'introduire dans l'enseignement la compréhension d'autrui qui, en dépit de la multiplication des voies de communications, est en régression. Elle répond à un besoin vital, non seulement de culture à culture, de peuple à peuple, mais aussi au sein de chaque famille, chaque profession, chaque lieu de travail: savoir qu'autrui est à la fois semblable à soi tout en étant différent de soi. C'est la meilleure éducation possible pour la paix – la paix entre nations, tout comme la paix intérieure de l'esprit et de l'âme.

L'urgence fondamentale, en réalité, est de retrouver le sens des grands problèmes. Or, tous les grands thèmes sont polydisciplinaires, si bien qu'ils sont écartés des programmes ! Prenons la question « qu'est-ce qu'être humain ? » La réponse n'est enseignée nulle part, alors qu'elle touche au plus profond de notre identité. Elle se trouve éclatée, en biologie, en psychologie, en sociologie, en littérature, histoire, et j'en passe.

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En compartimentant les connaissances à travers des disciplines, on forme des compétences spécialisées, mais on atrophie la capacité à relier ces connaissances et donc à considérer les problèmes dans leur complexité et globalité. Or, il faut prendre pleinement conscience de la complexité humaine qui est trinitaire: individuelle – sociale – biologique.

Par conséquent, je propose aussi d'introduire les perspectives futures de l'humanité, dont les processus techniques-scientifiques ont déjà commencé (prolongation de la vie, intelligence artificielle, algorithmisation de la société), mais où ces mêmes processus produisent des conséquences catastrophiques : la dégradation de la biosphère; les agricultures industrialisées qui détruisent les sols et dénaturent les aliments; les monocultures détruisant les autonomies alimentaires des nations, surtout latino-américaines et africaines; les déforestations massives; et tout cela ayant nécessairement des conséquences économiques et politiques.

Pour cela, il nous faut pouvoir dénoncer l'aveuglement d'un enseignement disciplinairement compartimenté. Être transdisciplinaire, ce n'est pas être antidisciplinaire. **L'interdisciplinarité et la transdisciplinarité supposent la discipline.** La transdisciplinarité c'est faire communiquer les différentes disciplines, c'est aussi faire communiquer les disciplines avec les domaines de connaissances non-disciplinaires, en bref c'est nourrir son esprit et complexifier sa pensée. En compartimentant les connaissances à travers des disciplines, on forme des compétences spécialisées, mais on atrophie la capacité à relier ces connaissances et donc à considérer les problèmes dans leur globalité. Les disciplines sont d'autant plus fécondes lorsqu'elles s'ouvrent. Cela dit, il y a des sujets qui sont transdisciplinaires, d'autres qui ne le sont pas. Mais tous les grands sujets comme « qu'est-ce que l'homme dans le monde? » nécessitent une nouvelle formation transdisciplinaire. C'est pourquoi la réponse n'est enseignée nulle part dans l'enseignement disciplinairement compartimenté, alors qu'elle touche au plus profond de notre identité et de notre existence. À nouveau, elle se trouve éclatée et fragmentée en de multiples disciplines qui ne communiquent pas entre elles. Pour instance, des sciences comme l'écologie et l'astrophysique, devenue cosmologie, sont en fait transdisciplinaires et devraient avoir une place importante dans l'enseignement.

La pédagogie doit être repensée afin de trouver le bon équilibre entre autorité et liberté, face à des générations souvent plus rétives qu'autrefois à la structure. Comment former, aider, civiliser, sans domestiquer? L'autorité reste nécessaire, mais elle doit pouvoir s'imposer d'elle-même, par le prestige, la qualité et la présence humaine. Il faut de la liberté, mais elle ne doit pas non plus faire exploser tous les cadres. Certains élèves ont besoin de structure pour se former, d'autres la vivent comme une contrainte épouvantable. Il n'est donc pas question d'abolir la structure, ni de lui permettre d'être

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source d'asphyxies. D'où l'importance de repenser la pédagogie pour qu'elle se base sur une relation de dialogue, d'échange, de compréhension mutuelle et respect réciproque entre enseignants et enseignés. C'est ainsi que l'enseignant peut devenir non plus le fournisseur des connaissances, que les élèves peuvent trouver instantanément par les technologies de l'information et de la communication, mais le contrôleur, le vérificateur, le synthétiseur des connaissances – peut-être même le chef d'orchestre.

En repensant l'éducation, il est aussi suprêmement important que soit ici traitée la nécessité de repenser l'éducation inclusive. Cela va sans dire que celle-ci doit impérativement pouvoir affronter et surmonter tous les problèmes d'exclusion que nous connaissons, tels que la pauvreté, les conflits et les handicaps. Mais elle doit aujourd'hui aussi pouvoir circonvenir à tous les problèmes plus subtils, mais tout aussi profondément nuisibles: la marginalisation, l'aliénation, les ethnocides, parmi tant d'autres. Pour cela, ce n'est plus uniquement l'accès à une éducation, mais bel et bien une refonte complète des systèmes d'éducation qui est nécessaire.

Mais enseigner à vivre, ce n'est pas donner des recettes. Les humanités ont un rôle à jouer. La littérature, c'est un accès extrêmement concret à la connaissance de l'être humain. La philosophie, c'est l'apprentissage de la réflexivité, c'est un outillage pour réfléchir au second degré à tout ce que l'on fait dans la vie. Le cinéma, le théâtre, la poésie, l'art et la musique, ce sont aussi de la passion et de l'émotion à travers lesquelles passent de la connaissance. Or nous savons que les idées ne se transmettent qu'avec de la passion. S'il n'y a pas de passion, l'esprit s'assèche, nous sommes condamnés à des savoirs desséchés. L'une des grandes découvertes des sciences du cerveau, que l'on retrouve chez Jean-Didier Vincent et Antonio Damasio, est qu'il n'y a pas de siège de la raison pure. Dès qu'un centre rationnel est excité, un centre émotionnel l'est aussi. Autrement dit, nous avons besoin en permanence d'une dialectique raison–passion. Il faut le rappeler avec force, car l'enseignement des humanités a tendance à être refoulé par une culture scientifique et technico-scientifique, alors que ces deux cultures devraient communiquer en permanence. La raison glacée, est inhumaine ; la passion sans raison, c'est le délire. Nous devons enseigner que vivre est une dialectique ininterrompue et variable selon les circonstances entre raison et passion. Et cela est vrai aussi pour l'enseignant. Comme disait Platon, pour enseigner il faut de l'Éros. L'amour de la connaissance et l'amour des élèves doivent être liés.

L'enseignement doit profondément se réformer depuis le primaire mais surtout au niveau secondaire et au niveau universitaire. Il doit se tourner vers le passé et vers le futur. Vers le passé: chaque culture a besoin de sauvegarder des savoirs traditionnels féconds et des pratiques communautaires qui tendent à dépérir. Vers le futur : il s'agit d'innover de façon créatrice dans la transdisciplinarité qui seule peut traiter les grands

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problèmes comme celui du développement, de la mondialisation, de la symbiose entre l'apport occidental et l'apport des autres civilisations d'un art de vivre.

L'éducation devrait ainsi comporter:

L'enseignement de la relation inséparable Unité-Diversité humaine: l'Unité humaine est le trésor de la diversité humaine, la Diversité humaine est le trésor de l'unité humaine;

La conscience de l'ère planétaire;

La conscience de la communauté de destin créée par la mondialisation;

Le développement de l'idée de Terre Patrie;[1]

La prospective: transhumanisme? Catastrophes et régressions?;

La nécessité de relier culture scientifique et culture des humanités;

Le problème du contrôle éthique et politique des pouvoirs produits par les sciences (nucléaires, génétiques, informatiques);[2]

L'esthétique comme dimension anthropologique;

La connaissance critique de la culture médiatique (mass culture) et de la culture d'internet;

La culture de paix à partir de l'enseignement de la compréhension humaine.

L'éducation doit ainsi préparer à affronter les problèmes de la vie personnelle et civique, à la compréhension d'autrui, à la préservation de ses racines, à prendre conscience des risques d'erreur et d'illusion, à composer avec l'incertitude, les aléas, l'inattendu. C'est dans cette logique fondamentale que cette première édition du *Global Guide of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education* s'inscrit. En proposant les piliers de l'intraculturalisme, la transdisciplinarité, le dialectisme et la contextualité, ce tome nous fournit non seulement l'opportunité de repenser l'éducation collectivement, mais aussi un cadre et une méthode d'opérationnalisation d'une éducation véritablement équilibrée et donc inclusive de tous. *C'est en ce sens que j'affirme que l'éducation doit « enseigner à vivre »*.

Edgar Morin
Septembre 2018, Montpellier, France

1. Cf. mon ouvrage du même nom.
2. Cf. mon ouvrage *Science avec conscience.*

English translation

Education must reconcile four fundamental missions: anthropological, civic, national and humanistic. Anthropological, because not only must school culture complete the humanisation of the child, but it must also develop the best in oneself, since human beings are capable of both the best and the worst, of abasement and elevation – by the same token, teaching takes on an ethical character. Civic, because it is a question of training citizens capable of both individual autonomy and integration into their society. National, because school must contribute to the improvement of the quality of life and thought of the Nation: at its core, school must enable everyone to want to fulfil their aspirations, but always within a community – that is why I would say that it fully fulfils its role when it succeeds in jointly teaching the idea of personal responsibility and solidarity towards others. Finally, the humanist mission: humanism is not only the recognition of the full humanity of every person, whatever his origin, sex or beliefs; it is, in this century, the awareness of the community of destiny of all humanity, of the interdependence of all ethnic groups and nations, the participation of everyone in the great adventure of the human race in the planetary age. And here we find the ethics present in the anthropological mission of education: to participate in the uninterrupted struggle between the forces of association, union, love and the forces of rupture, disunity, disintegration and death.

Here, there is no choice between humanist knowledge and utilitarian know-how, we must concile one with the other. I would add that education must not merely adapt to the professional or technical needs of a society; it must also adapt the needs of a society to those of culture. It is necessary to be part of our times (if only to be able to challenge it), but this must always be balanced by access to a centuries-old and multi-millennial culture, which includes the humanities, literature, history, languages and ancient knowledges.

It is also clear that education determines the fluent and relevant use of one's own language, even when it is a minority language. But it must also include safeguarding the values of one's own culture, specifically the values of solidarity and community, whilst at the same time opening up to other cultures and the world.

This universalist openness, which can only exist sustainably through deep roots, inevitably expresses the need to introduce into the curricula themes that help students to face the major personal and civic problems of their lives. It is therefore an educational institution not only anchored in the community and oriented towards the world, but also an education that is open to life, preparing for life beyond the technical know-how required by the labour market. It is then necessary to rethink

English translation

teaching so that it responds better than it does to the requirement formulated by Jean-Jacques Rousseau: *enseigner à vivre*.[1]

Therefore, it is important to include a ubiquitous aspect of life in the curriculum: confrontation with uncertainty, error and illusion. Error and illusion are due to the fact that all knowledge is a translation and mental reconstruction from sensory inputs, hence the inherent risk of error in the process of knowledge. In addition, as Shannon points out in his theory of communication, the transmission of information from an emitter to a receiver is always at risk of being disrupted or blurred by "noise".

Since every error and every illusion can have harmful or even fatal consequences, although they may also be fruitful at times – in the words of the poet Voznessenski: "You seek/India/You find/America" – there is a need for a specific teaching on the risks of error embedded in any knowledge process. But it is also, if not mainly, to show that error comes from the reduction of a complex reality to a single element or from a dualism of thought that erases complexities. The confrontation with uncertainty, error and illusion is therefore not only the problem of each individual whose future is uncertain at each stage of his life, it is also that of humanity, carried away into the impetuous and uncertain currents of globalisation.

I also propose to introduce the understanding of others into education, which, despite the multiplication of communication channels, is in decline. It meets a vital need, not only from culture to culture, from person to person, but also within each family, each profession, each workplace: know that others are both similar and different to oneself. It is the best possible education for peace – peace between nations, as well as the inner peace of mind and soul.

The fundamental urgency, in reality, is to rediscover the meaning of the great issues. However, all the great themes are multidisciplinary, so much so that they are excluded from the programmes! Take the question, "what is it to be human?" The answer is not taught anywhere, even though it touches the deepest part of our identity. It is found scattered in biology, psychology, sociology, literature, history, and so forth.

By compartmentalising knowledge across disciplines, specialised skills are formed, but the ability to link this knowledge and thus to consider problems comprehensively, in their complexity, is atrophied. On the contrary, we must be aware of human complexity as trinitarian: individual – social – biological.

1. To teach people how to live, to educate for life.

English translation

Therefore, I also propose to introduce the future prospects of humanity, whose technical-scientific processes have already begun (extension of life, artificial intelligence, algorithmisation of society), but where these same processes produce catastrophic consequences: the degradation of the biosphere; industrialised agriculture that destroys soils and denatures food; monocultures that destroy the food autonomy of nations, especially Latin American and African; massive deforestations; and with all their inevitable economic and political consequences.

To do this, we must be able to denounce the blindness of a disciplinarily compartmentalised education. Being transdisciplinary is not being anti-disciplinary. **Interdisciplinarity and transdisciplinarity both imply discipline.** Transdisciplinarity is about ensuring communication between the different disciplines, it is about ensuring communication between the disciplines with non-disciplinary knowledge domains – in sum, it is about nourishing one's mind and complexifying one's thinking. By compartmentalising knowledge across disciplines, specialised skills are formed, but the ability to link this knowledge and thus to consider problems in all their complexity is, once again, atrophied. Disciplines are all the more fruitful when they open up. That said, there are some subjects that are transdisciplinary, others that are not. But all the major subjects, such as "what is Man in the world?", require a new, transdisciplinary training. That is why the answer is not taught anywhere in disciplinarily compartmentalised education, even though it touches the very depths of our identity and existence. Again, it is scattered into multiple disciplines that do not communicate with each other. For instance, sciences such as ecology and astrophysics, which has become cosmology, are in fact transdisciplinary and should have an important place in education.

Pedagogy must be rethought in order to find the right balance between authority and freedom, in the face of generations that are often more restive towards structure than before. How to educate, support, civilise, without domesticating? Authority remains necessary, but it must be able to impose itself by itself, through prestige, quality and human presence. Freedom is needed, but it must not blow up all the frames either. Some students need structure to build themselves, others experience it as a dreadful constraint. It is, therefore, neither a question of abolishing structure nor allowing it to be a source of asphyxia. Hence the importance of rethinking pedagogy so that it may base itself upon a relationship of dialogue, exchange, mutual understanding and mutual respect between teacher and student. This is how the teacher may become the controller, verifier, synthesiser – and even, perhaps, the conductor of an orchestra – rather than the provider of knowledge, which students can now instantly find through information and communication technologies.

English translation

Whilst rethinking education, it is also supremely important to address, here, the necessity to rethink inclusive education. It goes without saying that education must be able to face and overcome all the problems of exclusion of which we are currently aware, such as poverty, conflict and disability. But, today, it must also be able to circumvent all the more subtle, but equally detrimental problems: marginalisation, alienation, ethnicities, amongst many others. To this end, it is no longer mere access to education that is required, but a complete overhaul of education systems.

But *enseigner à vivre* is not about giving recipes. The humanities have a role to play. Literature is an extremely concrete access to human knowledge. Philosophy is the learning of reflexivity, a tool for second order thinking about everything we do in life. Cinema, theatre, poetry, art and music are also passion and emotions through which knowledge is transmitted. For we know that ideas are only transmitted with passion. If there is no passion, the mind dries up, we are condemned to stale knowledge. One of the great discoveries of brain science, found in Jean-Didier Vincent and Antonio Damasio, is that there is no seat of pure reason. As soon as a rational centre is excited, so is an emotional centre. In other words, we need a constant dialectic Reason–Passion. This must be strongly reiterated, because humanities education tends to be repressed by a scientific and techno-scientific culture, whereas these two cultures should be in constant communication. Cold reason is inhuman; passion without reason is delirium. We must teach that living is an uninterrupted dialectic between reason and passion, variable according to the circumstances. And this is also true for the teacher. As Plato said, to teach you need *Eros*. The love of knowledge and the love of students must be linked.

Education must be profoundly reformed from primary school onwards, but especially at secondary and university level. It must look at the past and the future. Towards the past: each culture needs to safeguard fertile traditional knowledge and community practices that tend to decline. Towards the future: it is about innovating in a creative manner and within transdisciplinarity, which solely can address major issues like the one of development, of globalisation, of the symbiosis between the Western contribution and the contribution of other civilisations to an *art de vivre*[2].

Education should therefore include:

The teaching of the inseparable relationship between Unity and Diversity: human unity is the treasure of human diversity, and human diversity is the treasure of human unity;

The consciousness of the planetary era;

2. Art of living, a way of life.

English translation

The awareness of the community of destiny created by globalisation;

The development of the idea of *Terre Patrie;*[3]

Foresight: 'transhumanism? Disasters and setbacks?';

The need to link scientific culture and the culture of the humanities;

The ethical problems and political control of the powers produced by the sciences (nuclear, genetic, computer);[4]

Aesthetics as an anthropological dimension;

Critical knowledge of media culture (mass culture) and Internet culture;

The culture of peace based on the teaching of human understanding.

Thus, education must prepare students to face the problems of personal and civic life, to understand others, to preserve their roots, to become aware of the risks of error and illusion, to deal with uncertainty, hazards and the unexpected. It is within this fundamental logic that this first edition of the *Global Guide of Ethics, Principles, Policies, and Practices in Balanced and Inclusive Education* is based. By proposing the pillars of intraculturalism, transdisciplinarity, dialecticism and contextuality, this volume provides us not only with the opportunity to rethink education collectively, but also a framework and method for operationalising a truly balanced and therefore inclusive education for all. *It is in this sense that I affirm that education must "enseigner à vivre"*.

Edgar Morin
September 2018, Montpellier, France

3. Homeland Earth (cf. my book of the same name).
4. Cf. my book *Science with conscience*.

CHAPTER I

Balanced and Inclusive Education and Diversity

From a "problem" to be solved to an opportunity to re-imagine inclusive education

Balanced and Inclusive Education and Diversity: From a "problem" to be solved to an opportunity to re-imagine inclusive education

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TRANSLATED FROM FRENCH

In the first part of this contribution, we highlight the contentious history between schooling formats and minority or "minorised" cultures. Both in the past colonial context and in the current post-colonial context, school is most often synonymous with the domestication, alienation and devaluation of dominated or indigenous cultures.[1] The production of the educated person signifies conflicts and local cultural accommodations.[2] In the second part, we analyse the conditions necessary to rethink and decolonise the schooling format. In particular, we will look at the 2030 Agenda's Framework for Action[3] in order to identify the most favourable directions for a serious consideration of cultural diversity and the directions likely to maintain the status quo or even worsen the fate of underprivileged or minority-culture students. The need to take into account the mother tongue of learners will be given particular attention, as well as the study of the global hegemony of standardised testing. The third part of the text is devoted to the relevance of challenging traditional ethnocentrism in the educational sciences.[4] The value of using innovative and culturally appropriate concepts, in the context of Balanced and Inclusive Education, when considering schooling condition will be shown. The concept of

1. F. Fanon, *Les Damnés de la Terre*, 1961, Paris: ed. La Découverte poche, 2002, and P. Freire, *Pédagogie des opprimés*, Paris: Maspero, 1971.
2. L. Weis, *The Cultural Production of the Educated Person: Critical Ethnographies of Schooling and Local Practice*, SUNY Press, 1996.
3. UNESCO, *Incheon Declaration, Education 2030: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,* Incheon: UNESCO, 2015.
4. P. R. Dasen, & A. Akkari, (Eds.), *Educational Theories and Practices from the Majority World*, London: SAGE Publications, 2008.

"*vivir bien*" [living well] that stems from indigenous cultures in Latin America allows learning to exist in harmony with the need to preserve the planet and find a place for everyone in school and in society. The concept of *ikigai*, originating from the Japanese cultural tradition, is a potential source of meaning for education.[5] It translates into expressions such as a *raison d'être*, a reason for being, or a person's "reason for waking up each morning." If schools and teachers make use of these two concepts, many students could be included in the educational processes.

An international reflection on the place of cultural diversity in schools and in pedagogy will help anchor the theoretical foundations of inclusive education in a more cohesive and interdependent world.

1. Education, schooling and colonialism

In continuity of the Age of Enlightenment, the establishment throughout the 19th century of compulsory schooling for all children, notwithstanding the profound flaws of these educational models conceived in the context of the Industrial Revolution, constituted undeniable progress for the countries of Europe and North America. On the one hand, it made possible the active political participation of the majority of the population. On the other hand, it enabled major technological and scientific progress, leading to tangible socio-economic development of the societies concerned.

However, the benefits of mass schooling were not shared by all. Even in European societies or those developed by European colonists, ethnic minorities such as African-Americans and Native Americans experienced a delayed and segregated schooling process, at the cost of a forced renunciation of their ancestral cultures. In addition, the discriminated social categories linked to the dominant capitalist mode of production produced unequal societies consisting of proletarians and a privileged few.

Concurrently, at the beginning of the 20th century, only a few islands around the globe remain outside European domination. Most of the countries in Asia and Africa are part of vast European colonial empires whose destructive undertaking had for purpose the exploitation of natural and human resources. It is inevitable to acknowledge, however, that the civilising mission figured prominently in the justifications put forward by the Europeans powers to legitimise colonisation.

5. R. Ishida, 'Does traditional Japanese culture help people cope with stress using the concept of *ikigai* (reason for being)?', *British Journal of Education, Society & Behavioural Science*, 4(11): 1592–1600, 2014, and M. White, *The Japanese Educational Challenge: A Commitment to Children*, New York: Simon and Schuster, 1988.

For the other peoples of the world, schooling was therefore seen in the context of the unprecedented development of European colonisation and imperialism. The school model proposed to the colonised and the natives thus had several characteristics that were intrinsic to the colonial logic, which was domineering in its essence. First and foremost, the quality of the education offered could in no way be similar to that enjoyed by the coloniser. The prevailing idea was to make the natives docile auxiliaries of colonisation. Secondly, the school and its curriculum had to exhibit the civilisational and cultural superiority of Europe. Other cultures and languages were seen as an obstacle to schooling. Thirdly, the colonial school model had to cut the learners off from their cultural roots. Thus, as Senegalese author Hamidou Kane has convincingly shown in his autobiographical account, attending the colonial school is a wrenching, ambiguous adventure for the young Fulani hero of the novel, imbued with Muslim culture and Koranic school.[6]

Fanon highlighted the psychopathological effects of racism and cultural assimilation of colonised peoples, and black people in particular, in the process of colonial domination.[7] This process destroys the colonised peoples individually and collectively and it flourishes when the indigenous culture is replaced by the culture of the coloniser. The effort of the colonised to assimilate the culture of the coloniser has profound psychological repercussions that lead to long-lasting alienation. The colonised subjects easily realise that they do not have a viable identity: they learn from an early age that *the colonised are subhuman* and at the same time quickly realise that *the colonised cannot ever realistically attain the status of the coloniser*.

Fanon shows that colonisation and its school model are slowly destroying indigenous culture:

> The establishment of colonial rule does not lead to the death of indigenous culture. On the contrary, historical observation shows that the intended purpose is more a continued agony than a total disappearance of the pre-existing culture. This culture, once living and forward-looking, becomes closed, frozen in colonial status, caught in the shackles of oppression. Simultaneously present and mummified, it testifies against its members. In effect, it defines them unquestionably. Cultural mummification entails a mummification of individual thought. The apathy of the colonial peoples that is so universally reported is simply the logical consequence of this procedure. Criticism of this inertia, which is constantly addressed to "the native", is the ultimate act of

6. C. H. Kane, *L'aventure ambiguë*, Paris: 10/18, 2003.
7. F. Fanon, 'Racisme et culture', *Présence africaine*, 8/10, 1956, pp. 122–131.

> bad faith; as if it were possible for a man to evolve in another way than in the context of a culture that acknowledges him and that he decides to assume.[8]

The Brazilian educator Paulo Freire, who was particularly influenced by Fanon, rightly believes that there is no such thing as socially neutral education.[9] The aims of education are either the reproduction of society, with its inequalities and adaptations to change, or the radical transformation of society according to the principles of social justice and equality. Freire criticises the contemporary school model as a "banking" model. Banking education has several characteristics. Teaching is regarded as a repository of knowledge from the teacher (educator), who is the one who knows, educates, chooses the contents and evaluates the learners. The student receives the knowledge, does not know, is the object of the teaching process. It is a non-critical, vertical and paternalistic education. Information or data is transmitted, and facts are observed. It is also a utilitarian education: it does not explain causes, does not pose (social) problems, does not problematise.

The issue of the "oppressed" is the starting point of Freire's analysis. In the spirit of the Hegelian dialectic of the master and the slave, Freire puts the educational issue in its philosophical dimension: the *aim of any meaningful educational act must be, rather than knowledge, the whole and complete fulfilment of the human in each of us*. Neither the dominated nor the dominant are wholly fulfilled. The oppressors, who by definition are not in a position to liberate humanity, cannot truly emancipate themselves whilst the domination remains. They are objectively unable to overcome this domination because it is this that ensures their survival as oppressors. The oppressed, having been denied their humanity, carry a liberating potential. The struggle to suppress injustice, which appears to us as a necessity, will not solve anything if it only tends to reverse the balance of power: it may well reverse it, but what is key is to actually change the kind of relationship we all have (oppressed and oppressors) with others and with the world.

Despite the tremendous decline in political colonisation around the world throughout the 20th century, we still live, in the 21st century, in an international context of cultural colonisation that implicitly or explicitly divides the world into two blocs. On one side is the first bloc, the minority formed by the so-called "civilised" (developed) world, whose population enjoys a good standard of living and schooling. On the other, the (developing) world *to be civilised and schooled*, where the majority of the population lives in extreme poverty and has limited access to low-quality, banking-type education, to use Paulo Freire's expression. In an often-paternalistic stance, which perhaps indicates that some dynamics of colonialism still exist, the first bloc tries to support the second by means of international aid. The

8. F. Fanon, 'Racisme et culture', 1956, p.124.
9. P. Freire, *Pédagogie des Opprimés*, 1971.

first bloc is also increasingly concerned about the multicultural nature of its own population and the rising international flows of refugees and migrants. Cultural diversity is perceived as a problem not only by the public opinion of the rich countries but also by a large proportion of the decision-makers. In countries of the Global South, the diversity of peoples and cultures is still largely ignored or even combated with two questionable arguments. The first argument poses that the fragility and youth of the nation-state in many parts of the South justifies the negation of cultural differences. The second stipulates that recognising cultural differences and valuing them at school is not a priority insofar as the urgency is to provide quality education to all children, young people and adults.

The second bloc, which we have called the Majority World,[10] is experiencing a period of disenchantment and disarray. The progressive disappearance of emblematic figures of Marxism and Third-Worldism such as Fidel Castro, Thomas Sankara or Nelson Mandela, coupled with the collapse or transformation of the communist world (Soviet Union and China) produce an intellectual vacuum in the reflection on alternative schooling or development models. In addition, models imported from developed countries, which seem to fill this vacuum by default, do not recognise the respective diversities of the countries of the Majority World or their overall cultural differences compared to the countries at the origin of these models. Cultural diversity is therefore approached as a problem, often resolved by ignoring it, in the Majority World. However, development, as well as accessing technology, cannot be achieved without links to ancestral cultural legacy and an education that is deeply anchored in this heritage.

2. Decolonising the schooling format

It seems to us that three preconditions are necessary to decolonise the schooling format: (a) to value and utilise the diversity of learners, knowledge and pedagogies, (b) to rethink the organisation of learning processes within and outside of school and (c) to consider that schools have a primary responsibility in the search for justice and equality. We will approach them successively.

First of all, the schooling format, which emerged in a context marked by colonisation as we described in the first part of this text, is in dispute with diversity. Different languages, cultures and lifestyles have been considered an impediment in the school format's search for standardisation, conformity and control.

10. P. R. Dasen, & A. Akkari, (Eds.), *Educational Theories and Practices from the Majority World*, London: SAGE Publications, 2008.

The technical and scientific progress that characterised the Industrial Revolution in the 19th century also influenced the schooling format. It therefore favours the scientific knowledge resulting from the accumulation of advances in research. Knowledge should, nevertheless, also be considered in its plurality: scientific knowledge is itself the object of refutation and reinterpretation. Furthermore, humans make daily use, consciously or not, of various interpretative frameworks, both rational and irrational – philosophy, ideology, religion, tradition, emotion… The pervasiveness of conspiracy theories and "fake news" amongst a part of the population could thus be explained, on the one hand, through the irrational aspect of humanity and its confirmation biases, and on the other hand, by education systems that have neither formalised nor educated in the use of different interpretative frameworks.

There is also an urgent need to consider the links and complementarity between forms of knowledge in order to find solutions to the global ecological challenge. For example, saving the rainforests will be possible only if we realise the need for scientific knowledge essential to the understanding of tropical biodiversity (satellite imagery, observation of animals and plants in context, and in the laboratory, analysis of the consequences of hydraulic structures and intensive farming in the tropics), use of the social sciences that are essential to the reassessment of our lifestyles and to the questioning of our systems, and appreciation of the knowledge of indigenous peoples who have lived in these forests for thousands of years, who can offer alternative lifestyle and consumption patterns (reasonable exploitation of resources, medicinal plants, veneration of natural elements – land, rivers, animals, plants).

The complementarity between forms of knowledge cannot, however, be limited to the global ecological challenge. We need to recognise that learning is increasingly occurring outside school.[11] Informal learning is expanding tremendously thanks to social networks and the centrality of the internet and artificial intelligence in our current daily lives. It is therefore pertinent to consider a reorganisation of school-based learning. This entails schools focusing on training future generations to judge in a *critical way* the knowledge that they inevitably have access to outside the school. The immutable division of the school curriculum into disciplines (mathematics, languages, sciences, arts, history, geography) no longer makes sense in a world where we require transdisciplinary knowledge and problem-solving skills. School pedagogy must then essentially be focused on transdisciplinary projects where students learn to solve complex problems in a world of

11. L. B. Resnick, 'The 1987 presidential address learning in school and out', *Educational researcher*, 16 (9), 1987, pp. 13–54.

uncertainty.[12] The ability of future generations to cope with changes, uncertainties, instabilities and interdependence is the key skill and priority of the 21st century school.

Furthermore, it is crucial to consider that education has a primary responsibility in the search for justice and equality. Paulo Freire's work can help us move from a school that "transfers decontextualised information to passive students" to a school that "collectively builds knowledge for understanding, analysing and impacting the real world". The "*pedagogy of the oppressed"* is not a pedagogy *"for the oppressed";* it is not a recipe for conquering people or educating them according to a pre-established programme that follows a fixed pedagogy. It is simultaneously, within the same movement, a strategy of *conscientisation* of the oppressed and a revolutionary and emancipatory education where the educator learns just as much from his students as he contributes to them, where the path to knowledge is travelled together in the experience of the encounters between two consciences and the world. This is an education where the oppressed become pedagogues for themselves as much as for those who "teach" them. Ultimately, it is a pedagogy *"that makes oppression and its causes an object of reflection for the oppressed, which will inevitably lead to their engagement in a struggle for their liberation, through which this pedagogy will be applied and renewed"*.[13]

Alternative to the "banking" conception of pedagogy, where a select few know and transmit their knowledge to others in the form of a "deposit", Freire prefers a dialogical system in which *"no one educates another, no one educates himself alone: people educate themselves together throughout the world"*.[14] This existentialist method, starting from the concrete conditions of life, should allow anybody to acquire the necessary knowledge to transform his life.

3. Enrich inclusive education with innovative pedagogical concepts

In order for inclusive education not to remain merely wishful thinking or a meaningless discourse, it is urgent to rethink it from the perspective of the South. It is necessary to somehow *indigenise* education and pedagogy in order to make them inclusive. Africa has a central role in this process of indigenisation.

12. E. Morin, 'Le défi de la complexité', *Revue Chimères, 5*(6), 1988, pp.1–18.
13. P. Freire, *Pédagogie des Opprimés*, 1971.
14. P. Freire, *Pédagogie des Opprimés*, 1971.

The knowledge that must inform and guide Africans, both public decision-makers and civil society, to enable them to find solutions to development and education problems, must first and foremost be predominantly – but not exclusively – knowledge produced in Africa or by Africans. Africa must believe in its own resources and look at the world through its own lens, and not use the lenses of others without being sure that they are appropriate. Foreign educational and pedagogical expertise must be a complement to African expertise, not the other way around. This continent, more than other parts of the world, needs to rethink its schooling model, from early childhood education up to university. The model inherited from colonisation and sustained by independent nation-states and international aid has proved to be sterile and unable to meet either the needs of learners or the demands of socio-economic development. As aptly suggested by Brock-Utne, "education for all" really means Western primary schooling for some children, and none for others. Her incisive analysis demonstrates how this construct robs Africans of their indigenous knowledge and language, perpetuating Western dominion. In her words, it is like erecting a quadrangle building in a village of round huts.[15]

As Dei has rightly suggested, indigenisation is a process of re-appropriation of one's own cultural resources:

> An approach to African development that is anchored in a retrieval, revitalisation, and restoration of the indigenous African sense of shared, sustainable, and just social values. I contend that African peoples must re-appropriate their cultural resource knowledge if they are to benefit from the power of collective responsibility for social development. Indigenousness may be defined as knowledge conscientiousness arising locally and in association with the long-term occupancy of a place. Indigenousness refers to the traditional norms, social values, and mental constructs that guide, organise, and regulate African ways of living in and making sense of the world. Indigenous knowledges differ from conventional knowledge in their absence of imperial and colonial imposition. The notion of indigenousness highlights the power of dynamics embedded in the production, interrogation, validation, and dissemination of global knowledge about "international development." It also recognises the multiple and collective origins and collaborative dimensions of knowledge, and underscores that the interpretation or analysis of social reality is subject to different and sometimes oppositional perspectives.[16]

The term *ubuntu* is a concept present in all the Bantu languages of East and South Africa. It has seen a revival following the end of apartheid in South Africa. For Mandela, *ubuntu*

15. B. Brock-Utne, *Whose education for all?: The recolonization of the African mind*, Routledge, 2002.
16. G.J.S. Dei, 'Rethinking the role of indigenous knowledge in the academy', *International Journal of Inclusive Education*, 4 (2), 2000, p.72.

meant "respect, helpfulness, sharing, community, caring, trust, unselfishness. One word can have so many meanings. Those are all the spirit of ubuntu!"[17]

A common definition of the concept of *ubuntu* is "the inherent quality in being a person amongst other people". The term is often linked to the proverb "Umuntu ngumuntu ngabantu", which roughly translates as: "I am what I am because you are what you are", or more literally: "I am what I am thanks to what we all are".

Desmond Tutu defines the concept as follows:

> A person with ubuntu is open and available to others, affirming of others, does not feel threatened that others are able and good, for he or she has a proper self-assurance that comes from knowing that he or she belongs in a greater whole and is diminished when others are humiliated or diminished, when others are tortured or oppressed.[18]

The concept of *ubuntu* suggests the same ethical requirement of every human being: I am a human being by and for others. It brings an undeniable added value to inclusive education.

Some advocates of Africanism argue that traditional African education and the principles of *ubuntu* should provide the framework for citizenship education and multiculturalism.[19] Whilst observing that praise of ubuntu is hiding behind the defence of African democracy, Enslin and Horsthemke argue that the Africanist perspective faces various problems and makes substantial mistakes: political, moral, epistemic, and educational.[20] Whilst democracy and democratic citizenship necessarily imply a sensitivity to the local context, their principles are universal.

Serpell and Adamson-Holley highlighted the potential and sustainability of educational innovations that are designed to harness indigenous African cultural values and practices whilst promoting progressive social change.[21] The traditional African practice of assigning

17. A. Waberi, 'Etes-vous « ubuntu » un peu, beaucoup, passionnément?', *Le Monde Afrique* https://www.lemonde.fr/afrique/article/2015/08/03/etes-vous-ubuntu-un-peu-beaucoup-passionnement_4709614_3212.html, 2015.
18. A. Waberi, 'Etes-vous « ubuntu »', 2015.
19. J. Le Roux, 'The concept of "ubuntu": Africa's most important contribution to multicultural education?', *MCT*, 18 (2), 2000, pp. 43–46, and D. M. Swanson, 'Ubuntu: An African contribution to (re) search for/with a humble togetherness', *Journal of Contemporary Issues in Education*, 2 (2), 20017, pp. 53–67.
20. P. Enslin & K. Horsthemke, 'Can ubuntu provide a model for citizenship education in African democracies?', *Comparative education*, 40 (4), 2004, pp. 545–558.
21. R. Serpell & D. Adamson-Holley, 'African Socialization Values and Nonformal Educational Practices: Child Development, Parental Beliefs, and Educational Innovation in Rural Zambia', *Laboring and Learning*, 2017, pp. 19–43.

social responsibility to young people from an early age is highly compatible with the contemporary goals of education in Africa and elsewhere. At its best, it can serve as a context for learning about health and nutrition, as well as promoting the values of cooperation and supporting others, thereby contributing to peaceful coexistence in society. In many African societies, children's participation in family work is seen as a sign of social responsibility, an important dimension of intelligence.

Indigenous peoples in the Americas and other regions of the world can also provide us with meaningful concepts for inclusive education. The concept of *vivir bien* that emerged in South America deserves the attention of education specialists. This concept is appearing in the context of the current re-appropriation of cultural and intercultural resources by Native Americans who were maltreated by predatory colonisation over several centuries.[22] Throughout the continent, the Mapuches, Aymaras, Quechuas, Guaranis, Mayans and many other peoples are rediscovering and reinventing their cultural and intercultural roots. It should be noted that in the places where this pedagogical creativity is at work, there is a national political project to promote and value indigenous cultural diversity. This is the case in Bolivia and Ecuador, where the *vivir bien* concept is remodelling contemporary educational formats.

In a general way, this concept can be defined as "living in harmony with humans and non-humans":

> In Bolivia, we live between two matrices: the age-old ancestral matrix and the centuries-old western matrix, which arrived in 1522 with the Spanish invasion and the death of Atahualpa. (…) The life paradigm of the thousand-year-old ancestral matrix is the *Suma Qamaña*, or "living well in harmony", whilst the life paradigm of the centuries-old Western matrix is progress and development.[23]

Vivir bien describes the perspective of the vanquished[24] and proposes a new vision of development: "The challenge of the school is to connect itself to the new model of development, established on the relationship with its environment and the community".[25]

22. E. Galeano, *Les veines ouvertes de l'Amérique latine: une contre-histoire,* Pocket, 2001.
23. H. Yampara, 'Cosmovivencia Andina: vivir y convivir en armonía integral – Suma Qamaña', *Revista de Estudios Bolivianos,* vol. 18, 2011.
24. N. Wachtel, 'La vision des vaincus: La conquête espagnole dans le folklore indigène', *Annales. Histoire, Sciences Sociales*, vol. 22, no. 3, Cambridge University Press, 1967 (June), pp. 554–585.
25. M. Luna Tamayo, 'En busca del sentido de la educacion ecuatoriana', *Educación y buen vivir: reflexiones-sobre su construcción.* Quito – Ecuador: Otto Zambrano Mendoza, 2012, p. 56.

One environmental educational element supplied by indigenous peoples' representations of nature ought to find its place in schools, namely *Pachamama*: "(We recognise) the ancient roots and (we) celebrate nature, Pachamama, of which we are a part, and which is vital for our existence."[26]

Vivir bien is a bulwark against the cultural colonisation of minds that is conveyed by a traditional, anthropocentric curriculum, which excludes relationship to nature from educational objectives and which favours individualism and competitiveness.[27]

An education based on *vivir bien* is a viable alternative to competitive individualism: "nobody succeeds if his neighbour, his kin, does not also succeed",[28] and it reaffirms the centrality of living together in harmony:

> The common goal is that every child and adolescent has the opportunity to have a good start in life, to learn to be happy in society and school, to live together and to successfully learn (…) to choose and act freely.[29]

Comparing the case of Arab-Islamic education in Senegal with education based on *vivir bien* in Bolivia, both of which are considered non-Western pathways of modernity, Lewandowski shows that these models are struggling to be fully integrated into sustainable state education systems,[30] as shown by the measures of learning, which often remain aligned with international criteria. This study highlights the fragility of national and international policies in terms of recognising the plurality of education and development models.

Looking more closely at the new international Education 2030 Agenda, Akkari suggests the ambivalent nature of this instrument, which simultaneously exhibits a humanist orientation of inclusion in UNESCO traditional heritage but also a narrow definition of the quality of education based essentially on pupils' results in standardised tests as derived

26. E. A. Constituyente, *Constitución de la República del Ecuador 2008*, https://www.cec-epn.edu.ec/wp-content/uploads/2016/03/Constitucion.pdf, 2011, p. 7.
27. F. Huanacuni Mamani, *Buen vivir y vivir bien: Filosifia, politicas, estrategias y experiencias regionales andinas.* Lima, Coordination andine des organisations autochtones, 2010.
28. A. Minteguiaga, 'Nuevos paradigmas: educación y buen vivir', *Educación y buen vivir: reflexiones sobre suconstrucción*. Quito – Ecuador: Otto Zambrano Mendoza, 2012, p. 28–29.
29. C. Crespo Burgos, 'Buen vivir: escenarios en disputa y nuevos sentidos para la educación' *Educación y buen vivir: reflexiones sobre su construcción*, Quito. Ecuador: Otto Zambrano Mendoza, 2012, p. 92.
30. S. Lewandowski, S., 'De la enseñanza árabe-islámica al Vivir bien: Los modelos no occidentales de educación frente a las políticas internacionales de lucha contra la pobreza', *Bulletin de l'Institut français d'études andines*, 44 (3), 2015, pp. 343–364.

from national or international surveys.[31] And yet, almost all of these tests do not take into account school subjects such as social sciences, physical and artistic activities, citizenship and creativity. By introducing the imperative of "learning outcomes for all" as measured by standardised tests, the international education agenda offers a narrow vision of educational thought within the framework of instrumental economic rationality.

On a different note that may be useful for the implementation of inclusive education, let us examine the concept of *ikigai*, which originates from the Japanese cultural tradition.



Figure 1: The Dimensions of Ikigai
Source: Louet (2018), García & Miralles (2017)

The case of education and modernisation in Japan is interesting for the countries of the Global South in particular because this country has managed to modernise without westernising.[32] *Ikigai* is a combination of two Japanese words: *iki* (life) and *gai* (which is worth

31. A. Akkari, 'Systèmes éducatifs africains et orientations internationales pour l'éducation au XXIe siècle', *Revue internationale d'éducation de Sèvres*, (77), 2018, pp. 20–25.

32. P. F. Souyri, *Moderne sans être occidental. Aux origines du Japon aujourd'hui*, Editions Gallimard, 2016.

living), which could be translated as a "*raison d'être*" or "zest for life".[33] It is impossible not to draw a parallel with the *vivir bien* of the Native American peoples.

In his TED talk on the subject, Dan Buettner summarises *ikigai* as the "reason for which you wake up in the morning". This philosophy is based on four fundamental pillars: *what you love, what you are good at, what the world needs, and what you can be paid for*. If we try to apply these four pillars to the millions of students who are in classrooms all over the world, we will be able to identify their achievements and qualities in each of these categories. In other words, we will be able to look beyond our differences, and find each individual's place in school and in society.

Conclusion

In this chapter, we have proposed opening the definition of inclusive education to concepts and ideas that are seldom used in the international discourse on education. Balanced and Inclusive Education, as conceived and defined by the Education Relief Foundation (ERF), and whose four pillars will be further elaborated and discussed in the subsequent chapter, provides us with an effective framework for operationalisation. The pillars of *intraculturalism* and *dialecticism*, which emerge from the contributions of Fanon and Freire, can help us to decolonise the schooling format, and rethink education in a critical and more balanced way. The pillars of *contextuality* and once more of *intraculturalism* allow us to mobilise concepts such as *ubuntu*, *vivir bien* or *ikigai*, enabling education to not only reflect the contribution of all cultures but also to adjust to the diversity and plurality of contexts. The pillar of *transdisciplinarity* and that of *dialecticism* provide us with constructive tools for the reorganisation of school-based learning, by reflecting Edgar Morin's work on complex thinking that discerns the plurality of knowledge, its complementarity and the demands of our contemporary societies. The theoretical richness and ethical significance of these operationalised concepts will be instrumental in building truly inclusive education systems for all. ■

33. I. Louet, *Je trouve mon ikigai, c'est malin: Découvrir sa raison d'être pour retrouver joie de vivre, bonheur et sérénité grâce à une méthode accessible à tous!*, Paris: Editions Leduc.s, 2018, and Y. Mitsuhashi.Mitsuhashi, *Ikigai: Giving every day meaning and joy*, London: Kyle Books, 2018.

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CHAPTER II

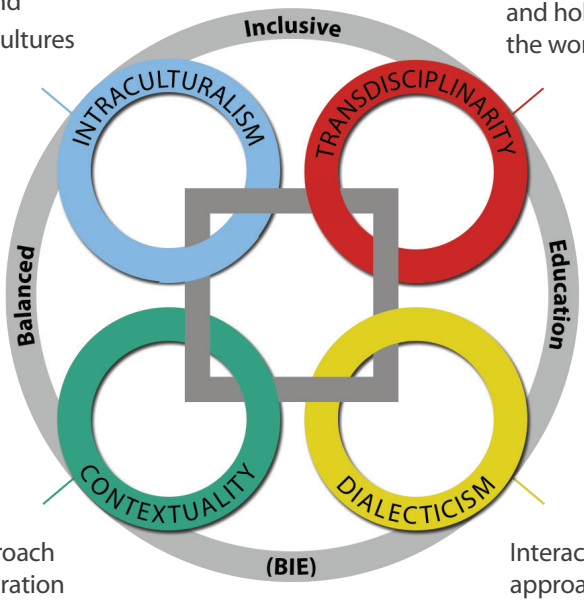
The Four Pillars of Balanced and Inclusive Education

- Intraculturalism
- Transdisciplinarity
- Dialecticism
- Contextuality

Four Pillars of Balanced and Inclusive Education (BIE)

Approach based upon in-depth cultural introspection for a more complete understanding of the inter-indebtedness and interdependence of cultures

Integrative multi-perspective approach based upon interconnecting both academic as well as non-academic knowledge domains for a complex and holistic understanding of the world



Context-centred approach based upon the integration and adaption to the realities, values, and interpretive frameworks of the learners, to develop their sense of co-ownership and co-creation

Interactional and synergetic approach based upon problem-posing dialogue and critical exchange, for free and critical thinking through the proactive participation of learners

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Intraculturalism

Approach based upon in-depth cultural introspection for a more complete understanding of the inter-indebtedness and interdependence of cultures

(Intra, inter, trans) cultural dynamics and citizenship: The challenges of education for plurality

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TRANSLATED FROM FRENCH

Since the 1970s, in-depth analysis has been carried out on the cultural consequences of the economic interdependence and social transformations generated by advent of globalisation. An entire body of literature has emerged to define the intercultural skills that should be developed to adapt to these changes.[34] In the face of rapid and often surprising changes in social relationships and cultural behaviours, many of the concepts, paradigms, categorisations and notions that have served as analytical tools have proved ineffective in capturing this evolution. The concept of culture, and its multiple derivatives (interculturality, multiculturality, etc.), has been the one that has generated the most debate and questions. The old definitions of culture have shown their limitations in reflecting this growing heterogeneity that now marks the social relationships and cultural practices of individuals and groups. Elitist conceptions that reduced culture to the arts and literature have been abandoned, as have traditionalist visions that anchored culture to popular traditions and modes of expression. The simplistic distinctions between nature (realm of the innate and biological), culture (realm of the acquired and of humanity) and religion (realm of the divine) have also been weakened.

In response to these insufficiencies, the entirety of human and social sciences have mobilised to offer more acceptable explanations or understandings of this shifting entity that culture has become. Professionals working in the cultural domain and educators adapting within multicultural environments have also contributed to these re-conceptualisation efforts. A first consensual redefinition of culture emerged from the **World Conference on Cultural Policies** held from 26 July to 6 August 1982 in Mexico City. This conference,

34. E. T. Hall, *La Dimension cachée*, Seui, Paris, 1971.

which brought together experts and decision makers from UNESCO's member states, laid the foundations for a more holistic perspective of culture.

Considering that the exponential advances in science and technology as well as the accelerated mobility of people have profoundly changed mankind's place in the world, the very nature of our relations with fellow human beings and with our environment, the Conference participants agreed on a wider definition of culture:

> [In] its widest sense, culture may now be said to be the whole complex of distinctive spiritual, material, intellectual and emotional features that characterise a society or social group. It includes not only the arts and letters, but also modes of life, the fundamental rights of the human being, value systems, traditions and beliefs; that it is culture that gives man the ability to reflect upon himself. It is culture that makes us specifically human, rational beings, endowed with a critical judgement and a sense of moral commitment. It is through culture that we discern values and make choices. It is through culture that man expresses himself, becomes aware of himself, recognises his incompleteness, questions his own achievements, seeks untiringly for new meanings and creates works through which he transcends his limitations.[35]

Cultural diversity, a liberating concept

This definition, which marked the institutional and international severance from the simplistic vision of culture, was subsequently enriched by the debates initiated by UNESCO on cultural diversity, which led to the adoption in 2001 of the **Universal Declaration on Cultural Diversity**.[36]

Faced with the proliferation of methods of identification and the increasing pluralisation of cultural identities, cultural diversity emerged as a promising concept to better reflect these complexities. It is regarded as a common good, as being as necessary for humanity as biodiversity is for nature. It allows for a better understanding of the evolving process of exchange, innovation and creativity that feeds the originality and plurality of individual and collective identities and broadens the possibilities of choice and expression.

35. UNESCO, *Déclaration de Mexico sur les politiques culturelles, Conférence mondiale sur les politiques culturelles,* Mexico City, Auteur, 1982.
36. UNESCO, *Déclaration universelle de l'UNESCO sur la diversité culturelle,* Paris, Auteur, 2001, http://portal.unesco.org/fr/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html

The concept of cultural diversity invites us to go beyond the old observation on the "diversity of cultures", which assumed the existence of quite distinct cultures that developed separately and that would present intrinsic and often irreducible differences.

It introduces the idea that every culture is the result of a dialogue between the elements of its own diversity, the conciliation of which is the basis of its specificity and vitality. Each culture develops and enriches itself by learning to subdue and assimilate the internal challenges and queries it raises. The strength of a culture is no longer measured by its degree of "purity" or homogeneity but by its ability to absorb the countercultures and subcultures it generates, to appropriate the contributions of other cultures and to influence them in return. Any static description of a culture could therefore only capture a particular moment in its evolution, just as a photograph can only catch a furtive moment of a face or landscape, determined by the play of light and especially by the unique perspective of the photographer.

The potentialities of culturality

All these characteristics have led some analysts to use the concept of "culturality" to better embrace the paradigm shift and the complexities introduced by cultural diversity.[37]

Culturality provides the elasticity necessary to explore the dynamics of cultural representations shaped by social and environmental dynamics, and especially the process by which individuals and groups internalise them. It is particularly interested in the beliefs and ideas that come into play in the interactions that determine cultural characteristics. According to Martine Abdallah-Pretceille, culturality favours the instrumental function of culture to the detriment of its ontological function and it places emphasis on patchwork solutions, on manipulations and strategies. This notion helps to better understand the process of "enculturation" of individuals and how they use their subjectivity to build their "cultural patchwork" by selecting references that respond to their current needs or aspirations. These references do not only appeal to the idea of origins or roots, they are also taken from representations of other cultures and from new creations born of the dynamic relationships between cultures that progressively evolve through their interaction and dialogue.

In urban environments where these different cultural references and practices intersect and "fertilise" each other, mutual influence is difficult to avoid, despite attempts by some to lock themselves into cultural myths to protect the "purity" of their culture. This has led

37. M. Abdallah-Pretceille, *L'éducation interculturelle,* PUF, Collection Que sais-je?, Paris, 2004.

Martine Abdallah-Pretceille to say that rather than the mixing of cultures, it is the culture of mixing that tends to become the driving force behind the creation of cultural processes.

It is through this subjectivity, acknowledged by the individual and facilitated by the generalisation of individualism and by the intersubjectivities that it promotes, that the "plural man" with multiple fluctuating identities of which Bernard Lahire speaks is being built.[38] For him, the diversity of socialisations (family, school, age group, high-profile influencers, social media, etc.) and the freedom of choice that it offers allow individuals to form "habitus" to the heterogeneous influences that break the monopoly of traditional systems of cultural determination.

The concepts of cultural diversity and culturality are the result of the studies carried out in recent decades on interculturality on the one hand and intercultural dialogue on the other. The notion of interculturality has undergone a very interesting evolution since its use in the 1980s. From its initial meaning, which focused on interactions between different cultures, and more particularly between rather dominant majority cultures and minority, especially immigrant, cultures, this notion has grown in complexity to be tied to the diversified interactions between individuals and groups engaged in sharing or confronting their particular representations, practices, beliefs, and values. It allows us to question the confrontations around norms and ethics in diversified societies and the steps to be taken in order to reconcile respect for diversity and recognition of universal principles.

Interculturalism is, therefore, more a means of interrogation than a theory, doctrine or field of application. It restores subjectivity as a crucial role by recognising the subject as an agent of their culture and no longer as a mere product thereof. The concept has been enriched by the critical examination of multiculturalism practised in countries such as Canada, the United States, and the United Kingdom, which has highlighted the limits of the juxtaposition and tolerance of manifestations of different cultures in the same places. By abandoning its illusions of serving as an interface or mediation between cultures in friction, the concept of interculturality has finally found a fruitful niche, at the crossroads between the notions of belonging and the notions of relationship, between the aspiration of origins and the desire for cultural renewal. It invites us to examine the interstices from which cultures breathe and through which they open up and present themselves to each other through their spatial and historical proximity, and often without the knowledge of the edifying discourses on their particularism.

Interculturality has had to deal with another notion that was intended to address what happens within cultures, namely intraculturality. In principle, the distinction between

38. B. Lahire, L'*homme pluriel – Les ressorts de l'action,* Nathan, Paris, 1998.

these two notions seemed obvious: interculturality oversees the study of relationships between individuals and groups of different cultures whilst intraculturality focuses on the analysis of relationships between people of the same culture. Yet, as soon as one goes beyond these initial perceptions, one realises that these categorisations were more a matter of opinion than an observable and objectively definable reality.

These re-conceptualisations of culture, cultural diversity and the dynamics that animate them have rendered the artificial boundaries between the intra- and intercultural ineffective.[39] Indeed, no individual or group could be reduced to its culture alone, nor could it embody said culture entirely. There are even entire segments of its own culture that may escape or seem strange to an individual, whilst a foreign culture may contain elements that they find more familiar. This entanglement of queries and this dilution of borders has led to a certain confusion between interculturality and intraculturality.

These convergences identified by analysts have led some to favour the use of the term transculturality, which provides a more incisive method of interpreting multicultural and interracial realities. The transcultural approach suggests that we look beyond cultures, to "decentralise" ourselves in relation to our own cultural references in order to better understand the process of forming plural cultural identities. The cursor is placed on the crossings that connect cultures, on the transition and migration of cultural landmarks and practices to better follow their trend of transformation and how it leads to original cultural recompositions, different from the source cultures.

It is in terms of artistic expressions that transculturalism finds its true fulfilment, particularly in contemporary creation.

The concept makes it possible to explore these areas of expression in which cultural practices and references are open and active, are affected, infected and conditioned by other cultures, in exchanges that are forced and organised as well as those that are fortuitous and accidental.

According to the Education Relief Foundation's (ERF) definition, intraculturalism is "an approach based upon in-depth cultural introspection for a more complete understanding of the inter-indebtedness and interdependence of cultures". By encouraging cultural introspection to see simultaneously the exchanges constituting the endogenous diversity of a culture, the exogenous diversity it has absorbed and its own absorption by other cultures, itself becoming an element of exogenous diversity, this approach introduces

39. L. Ma, 'Is there an Essential Difference between Intercultural and Intracultural Communication?' *Journal of Intercultural Communication*, no. 6, 2004.

another dimension of intercultural dialogue that makes it possible to better understand the historical and inherent interculturality and transculturality of each culture.

Intercultural dialogue, a necessity of cultural pluralism

All these enquiries have fed the debates on the subject of dialogue amongst cultures or civilisations. First, why talk about the dialogue of cultures when we know that it is individuals and groups that are the ones who communicate? These are notions inherited from misconceptions of culture that have since been abandoned. By launching its major programme on the "Routes of Dialogue" (Silk Roads, Iron Roads, Faith Roads, Slave Route, Routes of al-Andalus) in 1988, UNESCO made a major contribution to clarifying the debate.

The concept of "Routes" was intended to empirically demonstrate how cultures developed and exchanged knowledge, skills, beliefs, and representations in particular historical circumstances. The Routes offered not only a history and geography of intercultural dialogue, but they also invited prospective reflection on how this dialogue continues to transform our modern societies.

The knowledge gained through these Routes has led UNESCO to favour the use of the concept of *intercultural dialogue* over that of dialogue of cultures or civilisations, even if some of its member states persist in using the latter.

The concept of intercultural dialogue takes advantage of all the analytical work that has been done on cultural diversity, interculturality and transculturality. It introduces a new epistemology of the term dialogue that proposes another interpretation of the prefix "dia" by posing it as the equivalent of the prefix "trans", implying the idea of overcoming and transformation. Thus, intercultural dialogue is considered as a perilous exercise that not only makes it possible to confront two or more approaches but also raises the possibility of a new rationality born of the transformation of the parties in dialogue.

Intercultural dialogue is the corollary of cultural diversity in that it encourages a shift from the recognition of diversity to action for the practice of pluralism.

It is therefore also important to differentiate intercultural dialogue from other human interactions. For example, it is different from negotiation, which involves other issues and skills. There can be no intercultural dialogue with others without a dialogue with oneself. The difference between a conversation and a dialogue is that the latter invites us to transcend

ourselves and implies what Todorov calls a "transvaluation", i.e. "looking at oneself in an informed manner because of contact with the other."[40]

Intercultural dialogue involves risks that should not be underestimated. Arjun Appadurai has identified three: the risk of not being understood and of aggravating cultural misunderstandings, the risk of giving the other the impression of having grasped the essence of our culture and of caricaturing us, and finally the risk of not finding the right balance between the tendency to speak on behalf of one's entire group and the temptation to reveal doubts, divergences and dissensions within one's own culture. Therefore, in order to mitigate these risks, it is crucial to develop the intercultural and intracultural skills necessary for intercultural dialogue to realise its potential to transform mentalities and transcend cultural prejudices and impulses. Beyond the utilitarian functions of meeting the needs of our multicultural societies, intercultural dialogue is an end in itself insofar as it allows us to constantly create and renew the social bond essential to the expression of our common humanity.

The delay in political discourse and educational approaches

Despite advances in the thinking on all these concepts, the political discourses, educational approaches and the content of curricula continue to propagate outdated concepts of culture and cultural exchanges. They struggle to integrate the dynamic relationships that determine cultural characteristics, and remain obsessed with the search for homogeneity and original specificity in a monolithic and ethnocentric vision of culture. The beliefs conveyed by populist discourse and chauvinist educational content lead to dangerous interpretations of cultural reality.

One of these risks is the "culturalisation" of social problems, which consists of attributing to the culture a causal role in triggering these problems. Since the tragic events of September 11, 2001, and the rise of fundamentalism on all sides, the lazy explanation of the world's problems as the "clash of civilisations" popularised by Samuel Huntington has ended up engulfing the political-media debate. Rather than a "clash of civilisations" that have always dialogued, despite the current discourse of setbacks, it is often more a clash of definitions or ignorance, as indicated by Edward Saïd, that feed each other and create antagonisms, forming a basis for their confrontations.

40. T. Todorov, 'Le croisement des cultures', *Communications,* no. 43, 1996, p. 5–26.

Ignoring or denying the contributions of research on cultural diversity, interculturality or transculturality, there has been talk in recent decades of cultures and civilisations as international actors, as distinct and autonomous entities with a specific personality. New, crude generalisations justifying the most outdated prejudices are emerging and are explicitly articulated by politicians in search of quick popularity. Individuals and societies are forced to renounce the plurality of their identities and to reduce them to a few specific elements such as religion and ethnicity, thus transforming them into "murderous identities".[41]

We are consequently witnessing a dangerous essentialisation of cultural differences that is creating a new ethno-racial division of humanity and a new ethnocentric vision of the world. The only shared culture that has imposed itself as a horizon for humanity and that seems to be the subject of a global consensus is consumerism, which believes that it celebrates diversity through stereotypes conveyed by fashion, music or gastronomy.

The gathering and assigning of people in the name of cultural particularism is another danger because it ends up locking them into fixed affiliations and static and exclusive identities that undermine all efforts to learn to live together in respect of cultural diversity.

Education or the reconstruction project

The scope of the concepts, perspectives and practices to be (re)built is, therefore, immense. Education in its broadest sense, including lifelong learning and in the understanding of its four functions as defined in the report of the International Commission on Education for the 21st Century: "Learning: The Treasure Within" published in 1996 by UNESCO, is the privileged terrain where this construction of minds and attitudes should begin.[42]

Education is also the place where the debate on ideas and world views, in order to changing the mentalities of new generations, will be the most virulent and the most difficult. Indeed, what we want to teach the younger generations must be the subject of the broadest and most accepted consensus. However, due to the growing heterogeneity within societies, it is increasingly difficult to reach a consensus on educational policy choices, pedagogical approaches and curricula – in short, on the contents that contribute to the construction of national identities. Ethical, political, ideological and religious confrontations surrounding education, its objectives and methods have been exacerbated in recent times and make it even more essential to establish more open and inclusive consultation and arbitration processes.

41. A. Maalouf, *Les identités meurtrières*, Grasset, Paris, 1998.
42. UNESCO, *L'éducation: un trésor est caché dedans. Rapport de la Commission internationale sur l'éducation pour le 21ème siècle,* Paris, Auteur, 1998, http://unesdoc.unesco.org/images/0011/001159/115930f.pdf

It is clear here that public education plays a decisive role in shaping the development of national identity and the perception of a common destiny, which is essential for building citizenship. However, the role of the State in defining and building this citizenship is constantly being challenged by the emergence of transnational and transcultural forms of citizenship. By creating new economic, social and cultural spaces beyond national borders, globalisation has facilitated the emergence of new forms of identification and expressions of identity. The State is competing with new agents who at times have much more effective means to influence and guide citizens. New communication technologies and social media have become a fundamental catalyst for this transformation, especially amongst the younger generations, who are increasingly educated, informed and connected, but also increasingly vulnerable and disoriented.

In a new publication entitled "Rethinking Education; Towards a global common good?" published in 2015, UNESCO recalls that:

> Education has a crucial role in promoting the knowledge we need to develop: first, a sense of shared destiny with local and national social, cultural, and political environments, as well as with humanity as a whole; second, an awareness of the challenges posed to the development of communities, through an understanding of the interdependence of patterns of social, economic and environmental change at the local and global levels; and third, a commitment to engage in civic and social action based on a sense of individual responsibility towards communities, at the local, national and global levels.[43]

The authors of the publication stress that "*education should celebrate cultural diversity*" because:

> Enhanced diversity in education can improve the quality of education by introducing both educators and learners to the diversity of perspectives and the variety of lived worlds. The cultural dimension of education must be stressed, in the spirit of the 2001 UNESCO Universal Declaration on Cultural Diversity and the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions.[44]

A balanced and inclusive education must therefore prepare students to better understand the changing nature of cultures and the dynamic nature of mutual influences and establish in young minds new ways of identifying themselves and building their cultural personality. This education should help to develop the intercultural skills needed to be and live together in increasingly multicultural environments. The realisation of such an

43. UNESCO, *Rethinking Education: Towards a global common good?,* Paris, Author, 2015, pp. 66–67.
44. UNESCO, *Rethinking Education,* p. 67.

approach raises enormous challenges in offering an education with regard to plurality that can reconcile the requirements of establishing national citizenship based on the particularities and needs of nation-states and the principles for the promotion of a global citizenship that introduces awareness of belonging to a "Homeland Earth" and responds to the changes brought about by globalisation. ■

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Intraculturalism: An Overview

UNESCO developed the concept of intercultural citizenship which "relies upon conciliating multiple identities and contexts simultaneously, assumes the ability to engage in intercultural dialogues respecting the rights of cultural others, and ideally becomes one step toward promoting peace".[45] The 2006 Guidelines defined multicultural and intercultural education as follows:

> Interculturality presupposes multiculturalism and results from 'intercultural' exchange and dialogue on the local, regional, national or international level. … Multicultural education uses learning about other cultures in order to produce acceptance, or at least *tolerance*, of these cultures. Intercultural Education aims to go beyond passive coexistence, to achieve a developing and sustainable way of living together in multicultural societies through the creation of *understanding* of, *respect* for and *dialogue* between the different cultural groups" [emphasis in the original].[46]

The Indian-American socio-cultural anthropologist Arjun Appadurai, who has extensively written on the cultural dynamics of globalisation has, however, identified three risks of intercultural dialogue:

> The risk of being misunderstood and, accordingly, exacerbate cultural misconstructions or disputes;
>
> The risks of giving the impression to the interlocutor that they have grasped the essence of one's culture and, hence, be reduced and caricaturised;
>
> The risk of not finding the right balance between speaking on behalf of one's cultural group and expressing the inner differences, tensions, and diversities.

Education systems seeking to adopt an intercultural approach are persistently faced with the three risks identified by A. Apparadurai. By having to simultaneously address the need to articulate and consolidate a national identity and express this national identity in relation to a globalised world, cultural diversity is, therefore, approached as a problem by formal education systems. It is either reduced to a superficial glance at the other cultures, realising the three risks identified, or completely ignored.

45. UNESCO, *Intercultural Competences. Conceptual and Operational Framework*, 2013.
46. UNESCO, *Guidelines on Intercultural Education*, 2006, pp. 17–18.

In addition to these impediments, in seeking to respond to the need for a national identity, education systems tend to construct a national narrative, akin to a historical novel, featuring key individuals and moments of a nation's history. This is often at the expense and exclusion of plurality and diversity, both inherent to the national narrative. This exclusion of plurality and diversity from the national narrative generally takes one of two forms, or both simultaneously:

> The exclusion of the narratives and histories of minority or marginalised groups in favour of the narrative of the dominant group of a given nation;
>
> In countries of the Global South, particularly countries emerging from a colonial past, the adoption of largely Eurocentric narratives of world history which, whilst including the modern political history of the nation, excludes the nation's own cultures.

In the first case, the education system may inadvertently produce a cultural superiority complex in the dominant groups of society, whilst simultaneously producing a cultural inferiority complex in minority or marginalised groups. In the second case, the consequences echo those of the first, yet at a different scale: development of a cultural inferiority complex of the student body, which does not recognise itself in the narrative, whilst also causing a severance between education and the community. These consequences tend to produce inimical results: for those whose narrative have been excluded, by being requested to renounce to central parts of their identity, they are subject to a state of alienation which, in turn, may result in "murderous identities"[47] as they seek to preserve their cultures, which they essentialise and reduce to a particular set of characteristics which differentiates them from the *other*, in effect *becoming what the other is not*; for those whose narratives permeate the education system, the result is either intolerance of the *other*, whose cultural existence is perceived as a threat to their culture and identity, or an exoticisation of the other in reductive set of characteristics, whose culture and, hence, identity are perceived as irrelevant, beyond cultural curiosity, as it is neither as complex as the dominant culture nor as historically valuable and, hence, irrelevant to the contemporary world. Therefore, this approach to the national narrative in education systems across the world does not only constitute a considerable hinderance to a fruitful intercultural education, but it is also detrimental to the cohesiveness of the national identity *itself*.

It is in this context that *intraculturalism* emerges as a complementary approach to intercultural education. By reversing Tztan Todorov's transvaluation[48], namely "to look at one's

47. A. Maalouf, *Les identités meurtrières,* Paris: Grasset, 1998.

48. T. Todorov, 'Le croisement des cultures', *Communications,* no. 43, 1986, p. 5–26.

self with an informed look in one's contact with the other", intraculturalism becomes potent as an educational approach: it mitigates the three risks of intercultural dialogue and responds to the double need for education systems to articulate cohesive national identities and their dynamic existence within a globalised world. It is no longer a question of studying other cultures in contrast to a given indigenous culture but, rather, to study more fully the indigenous culture and identify:

> The inter-retro-active influences of its sub-cultures;
>
> The influence and contribution of other cultures and exogenous knowledge;
>
> Its own influence and contribution to other cultures and their respect body of knowledge.

In consequence, it is the inter-indebtedness and interdependence of cultures and sub-cultures that are elicited, demonstrating that they already are the result of diversity. The risk of accentuating dualism in intercultural dialogue is, in effect, dissipated, since a given culture would not have existed, in its current form, had it not been for the culture of the *other* and, conversely, the *other*'s culture would not have existed, in its current form, had it not been for the contribution of one's own. Grounded in intraculturalism, an education system is enabled to both build a cohesive national identity by including the plural narratives of its communities as an integral, historical part of the national culture, and build a harmonious relationship with other identities in the realisation that they are not merely in co-existence but, rather, co-creators and co-owners of the shared contemporary world. It is an integration of the endogenous and exogenous dimensions of diversity into education, since each culture is both indigenous and non-indigenous in that it is constituted, in part, of exogenous elements and is, itself, the contributor of exogenous elements to other cultures.

It is appropriate to reiterate, however, the complementary nature of intraculturalism to interculturalism. Whilst intraculturalism demonstrates the intrinsic intercultural and transcultural essence of cultures, cultural differences will continue to exist, for which an intercultural dialogue will be necessary. Intraculturalism, therefore, can be perceived as an educational pre-condition for fruitful intercultural dialogue. ■

Intraculturalism

GUIDING PRINCIPLE
Through the inclusion of the plurality and multiplicity of narratives, education dismantles processes of cultural alienation and constructs cohesive identities which are harmoniously rooted in their communities and open to the world

OVERALL GOAL
Nurture cohesive and harmonious identities

Outcomes	Outputs	Output Achieved	Level of Outcome Alignment			
			Minimal alignment	Partial alignment	High alignment	Full alignment
OUTCOME A Demonstration of cultural inter-indebtedness and interdependence; simultaneous deconstruction of cultural superiority and inferiority complexes	CURRICULUM		Output A.1 achieved	Outputs A.1 and A.2 achieved	Outputs A.1, A.2, A.4, and A.5 achieved	All Outputs achieved
	Output A.1: Neglected and forgotten histories are rehabilitated	❑				
	Output A.2: Historical exchanges, synergies and mutual borrowing between cultures are highlighted	❑				
	Output A.3: Inclusion of the interinfluences of languages in their study	❑				
	Output A.4: Contributions of other cultures to one's own culture are elicited	❑				
	Output A.5: Contributions of one's own culture to others are elicited	❑				
OUTCOME B Capacity to engage with the complexity of identities through the concept of culture; Realisation that other cultures are as complex as one's own	CURRICULUM		Output B.5 achieved	Outputs B.5, and B.1 achieved	Outputs B.5, B.1, and B.2 achieved	All Outputs achieved
	Output B.1: Topics, both historical and contemporary, are studied from various perspectives (endogenous vs exogeneous, mainstream vs alternative, etc.)	❑				
	Output B.2: Cultures are demonstrated to be the result of both endogenous and exogenous diversity	❑				
	Output B.3: Cultures are approached in all their complexity and dynamism (synergies, contradictions, points of tension, diversity, sub-cultures, etc.)	❑				
	Output B.4: Culturally diverse works are approached within their cultural contexts	❑				
	PEDAGOGY					
	Output B.5: Socio-cultural background of learners forms the basis of the cultural introspection	❑				

Transdisciplinarity

Integrative multi-perspective approach based upon interconnecting both academic as well as non-academic knowledge domains for a complex and holistic understanding of the world

Transdisciplinarity: Engaging with Complexity

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TRANSLATED FROM SPANISH

One of global society's most significant challenges is overcoming a strategy of decontextualised fragmentated-vision parcelled-action, which is foundational to the current environmental, scientific-technological and politico-socio-economic-cultural crossroads. It is impossible to confront this fundamental challenge without reinventing the universal form of transformative human action known as education.[49]

Education must be reinvented on a transdisciplinary and complex foundation to prepare human beings to live in the present socio-natural environment, characterised by three interrelated contexts, in which changes that impact and will impact human life occur:

1. The scientific context of theoretical-epistemological and methodological advances, which includes results from transdisciplinary research;
2. The context of politico-socio-economic-cultural crossroads of humanity's crisis;
3. The metatechnological context.[50]

49. Education should not be reduced to an instrumental process, nor should it be considered a technical exercise estranged from the ways social life is organised. Several proposals have contemplated the reinvention of education through the idea's complexity and transdisciplinarity. These proposals attempt to respond to the challenge of relocating education in a universalist direction [E. Morin, *Enseñar a vivir. Manifiesto para cambiar la educación,* Buenos Aires, Nueva visión, 2015], equipping it to meet the needs of the cultural diversity of humanity and its current interconnection [E. Luengo González, *La transdisciplina y sus desafíos a la universidad,* en Luengo González, E. (coord.), *Interdisciplina y transdisciplina: aportes desde la investigación y la intervención social universitaria, Guadalajara, ITESO, 2012.* https://formacionsocial.iteso.mx/documents/10901/0/D-200400-2.pdf/c25c322f-fd1e-47bf-be55-fa427f2cda6a], solving the concurrent political complications [E. Morin y C. Delgado, *Reinventar la educación. Abrir caminos a la metamorfosis de la humanidad*, México, Multiversidad Mundo Real Edgar Morin, 2016] and reversing the path of multiple separations between education, educators and students [C. H. Hurtado, *La transformación educativa ¿para qué y por qué educar?*, Buenos Aires, La Colmena].

50. C. Mitcham, Notes toward a philosophy of meta-technology, *PHIL & TECH,* vol. 1, no. 1&2, Fall 1995, pp. 4–6.

Transdisciplinary Research

B. Nicolescu,[51] L. Carrizo[52] and J.T. Klein[53] have emphasised the new vision of the world that transdisciplinarity represents: the need to take into account the concordance of interpretations with value systems and research methodology. E. Morin has highlighted the omnipresence of the simplification that is typical of the "great paradigm of the West"[54], a cultural result of Westernisation. P. Sotolongo and C.J. Delgado locate transdisciplinarity and complexity as part of the "contemporary revolution of knowledge".[55]

Nicolescu[56] traces the origins of the concept of transdisciplinarity to educational debates in 1970 between E. Jantsch, A. Lichnerowicz and J. Piaget in the international workshop "Interdisciplinarity – Teaching and Research Problems in Universities".[57] The concept of transdisciplinarity in Piaget as a superior form of interdisciplinarity and a new field of knowledge initiates a thread that was consolidated in the 1990s with the first conference on transdisciplinarity and *The Manifesto of Transdisciplinarity*.[58] Two ideas stand out in this conceptual elaboration:

51. B. Nicolescu, 'Transdisciplinarity – Past, Present and Future', *El II Congreso Mundial de Transdisciplinariedad,* Vieja/Victoria, Brasil, http://cetrans.com.br/assets/textos/multidisciplinario-past-present-and-future.pdf, 2005; B. Nicolescu, *La transdisciplinariedad Manifiesto*, Ediciones Du Rocher, http://redcicue.com/index.php/transdisciplinary-human-education/transdisciplinary-human-education-edicion-no-1/104-articulos/138-manifiesto-la-transdisciplinariedad-basarab-nicolescu, 1996, pp. 32–38, 99–106.
52. L. Carrizo, M. Espina Prieto and J. T. Klein, *Transdisciplinariedad y Complejidad en el Análisis Social*, Documento de debate, no. 70, UNESCO-MOST, 2004, pp. 7–8.
53. J. T. Klein, 'Interdisciplinarity and complexity: An evolving relationship', *E:CO* Special Double Issue, vol. 6, nos. 1–2, 2004, pp. 2–10.
54. E. Morin, *El método 4. Las ideas*, Madrid, Cátedra, 1992, pp. 225–236.
55. P. L. Sotolongo Codina y C. J. Delgado Díaz, *La revolución contemporánea del saber y la complejidad social. Hacia unas ciencias sociales de nuevo tipo*, Buenos Aires, CLACSO, 2006, pp. 65–70 and C. J. Delgado Díaz, *Hacia un nuevo saber. La bioética en la revolución contemporánea del saber*, Havana, Acuario, 2007, p. 186.
56. B. Nicolescu, 'Transdisciplinarity – Past, Present and Future', pp. 1–2.
57. The journey to complex epistemologies has taken time. Precedents in the "erosion of determinism" can be found in 19th-century thought and research [I. Hacking, *La domesticación del azar. La erosión del determinismo y el nacimiento de las ciencias del caos*, Barcelona, Gedisa, 1990, p. 17], as well as the epistemological rupture that led to work with regularities and statistical laws in the social sciences. Later, the generalised theory of relativity contextualised the cosmological subject in space time; that is, it characterised and defined it as a spatio-temporally conditioned subject. In turn, quantum mechanics contextualised the subject within the reality of the context in which knowledge is produced (macro world or micro world). The above named were successive steps in contextualising the subject of knowledge; that is, validating the limits typical of an epistemological subject that since then ceases to be the universal subject or modern epistemological god. This is a very important step on the way to establishing the issues of complexity and the transdisciplinarity in the field of research and education in the 1970s.
58. L. de Freitas, E. Morin y B. Nicolescu, *Carta de la transdisciplinariedad*, en Nicolescu, B., *La transdisciplinariedad Manifiesto*, Ediciones Du Rocher, http://redcicue.com/index.php/transdisciplinary-human-education/transdisciplinary-human-education-edicion-no-1/104-articulos/138-manifiesto-la-transdisciplinariedad-basarab-nicolescu, 1996, pp. 120–123.

1. *trans* is interpreted as an investigative journey "between", "across", and "beyond" disciplines; and
2. the link between complexity and transdisciplinary is considered unbreakable, because they share the same epistemological foundation.[59]

The first idea leads to the challenge of a radical transdisciplinarity: the dialogue between forms of knowledge, whilst the second channels methodological research. Klein has profiled several ways in which the concept of transdisciplinarity appears in collaborative research groups and their practices throughout the world.[60]

Transdisciplinarity's impact in research has been broad, both in the search for solutions to problems and in the methodology of the social sciences. E. Luengo[61] pinpoints the advent of the transdisciplinarity with methodological dissatisfactions and explorations, the need for interdisciplinary dialogue, and the encounter with complexity through Morin.[62]

Several documents resulting from transdisciplinary research have had a significant impact on education. The report from the Gulbenkian Commission[63] concludes its analysis for the restructuring of the social sciences with four recommendations that give rise to hope for possible change in education: all the recommendations focus on research and postgraduate activities, and institutional (organisational, structural and curricular) change in

59. The common epistemological foundation (at the level that concerns how basic concepts are conceived to account for knowledge, such as subject, object, objectivity, cognitive relationship, knowledge) justifies considering complexity and transdisciplinarity together. The existence of coexisting levels of reality leads to complexity. Investigating such complexity calls for movement between disciplines and moving beyond them – in other words, transdisciplinarity. A neologism such as "transcomplexity" (Lanz 2010, p. 20; González 2009, p. 46, p. 113) is not needed. That only unnecessarily complicates the understanding of what is relevant, since complexity and transdisciplinarity presuppose each other. They are connected and do not require a third term to identify them, because their foundation is the same epistemological break from classic ideals, which binds them together and makes them inseparable.
60. J. T. Klein, 'The transdisciplinary Momentum', *Integral Review*, *special issue International Symposium: Research Across Boundaries, Part 1*, vol. 9, no. 2, http://www.integral-review.org/issues/vol_9_no_2_jun_2013_full_issue.pdf#page=194, 2013, pp. 190–197.
61. E. Luengo González, 'De la insatisfacción metodológica al encuentro con la transdisciplina', en E. N. Gómez-Gómez and R. Arboleda-Gómez. (coords.), *Diálogos sobre la transdisciplina. Los investigadores y sus objetos de estudio,* Guadalajara, ITESO, http://hdl.handle.net/11117/3058, 2015, pp. 12–15.
62. The autobiographical experience narrated by Luengo coincides with what Nicolescu pointed out, and explains the importance given to methodological questions in transdisciplinary research. Its roots demonstrate the epistemological break from the model of disciplinary science. The epistemology-methodology-methodical link is always present in transdisciplinary research, since it calls for adjustments at each of these levels. See: J. T. Klein, 'Interdisciplinarity and the Prospect of Complexity: The Tests of Theory', *Issues in Integrative Studies*, no. 19, 2001, pp. 43–57; J. T. Klein, 'The transdisciplinary Momentum', in *Integral Review, special issue International Symposium: Research Across Boundaries, Part 1*, vol. 9, no. 2, 2013, pp. 189–199, http://www.integral-review.org/issues/vol_9_no_2_jun_2013_full_issue.pdf#page=194.
63. I. Wallerstein (coord.), *Abrir las ciencias sociales. Informe de la Comisión Gulbenkian para la reestructuración de las ciencias sociales*, Mexico City, Siglo XXI, 1996, pp. 111–114.

universities. The symposium on transdisciplinarity[64] held under the auspices of UNESCO in the late 1990s concentrated on how to cover diverse aspects of reality, increase understanding of global and complex issues, stimulate synergies between disciplines and support cooperation and exchange between experts and different sectors. Since then, a lot of ground has been covered before finally arriving at recently produced political documents[65] that establish a distinctive commitment to complexity and transdisciplinarity as central to the educational agenda.

Transdisciplinarity and complexity have been incorporated into the political and educational discourse, thus overcoming the rejection of the previously unknown terminology, although this confers a "layman's" meaning to the terms, often depriving them of their epistemological root and their innovative content. At this new historical juncture, which coincides with relevant global changes, it is essential to revisit the content that links the recognition of the world's complexity, the need for a non-classical epistemology, and the relevance of transdisciplinary research as a proposal to work with that complexity. Considering complexity and the transdisciplinarity as a way of organising knowledge is far from a problem of classification. It requires revisiting content regarding epistemology and worldview, repositioning it in the foreground in order to be able to face social and educational complexity, rethinking the fundamental epistemological questions of education, and their methodological and pedagogical consequences.

Education and the Crisis of Humanity

The general perspective offered by the Morinist concepts of "crisis of humanity" and "metamorphosis"[66] frames the need for complexity and transdisciplinarity for changing education. It is not a need to improve or update education, but to change it so that it meets the social function of preparing human beings to live in a world that is transforming globally, on the edge of an abyss of self-destruction. According to Morin, a "change of path" is needed, and that change cannot be prepared and driven without transforming education.

Education was born out of the intimate connection of the mother which breastfeeds and the family which shelters, and it was universalised through a historical process of

64. U. Baxi et al., *Transdisciplinarity "Stimulating Synergies, Integrating Knowledge"* Paris, UNESCO, 1998, p. III, 31, http://unesdoc.unesco.org/images/0011/001146/114694eo.pdf.

65. *Replantear la educación*, Paris, UNESCO, 2015. This report gives continuity to the thread followed in the Faure report in 1972 (*Aprender a ser: la educación del futuro*) and the Delors report in 1996 (*La educación encierra un tesoro*), now with a more direct terminological commitment to complexity and transdisciplinarity.

66. E. Morin, *La vía para el futuro de la humanidad*, Barcelona, Paidós, 2011, pp. 28–38.

estrangement and separation from those origins. For a long time, state institutions have controlled education. The estrangement today is such, that "education" evokes institutional entities (school, institute, university, ministries, etc.) more so than family members and other places where learning happens. In addition, in recent decades, direct economic players, such as the OECD and the World Bank, are amongst the entities that set out guidelines for change in education, and thus, they have begun to surpass the State in its governing role. The State now begins to resemble an institution subordinate to global entities. But human beings do not cease being biological entities, and advances in neuroscience, cognitive sciences and the understanding of knowledge need to be systematically incorporated into the educational agenda and educational practices.[67]

To open paths up that make inclusion and intraculturalism possible, as was conceived by the Education Relief Foundation as the first pillar of a balanced and inclusive education, fundamental lessons are needed in accordance with the pedagogy of Morin's absences; something which contemporary education lacks.[68] This is discussed in another chapter of this volume. It also requires the development of a way of thinking that is critical, creative, civic, responsible, and that empowers human beings to learn to live in this new context and change it in ways that benefit human beings and their socio-environmental environment. Changes in the economic, political, social, cultural and metatechnological realms create huge opportunities, which by themselves, are ambivalent and can lead to future uncertainties, accelerating the tendency towards self-destruction. Human action must direct these changes, and it is necessary to empower human beings by many means, amongst which education is central.

In this complex world, effective solutions can apparently turn into the opposite. For example, change in the consumption model moves us from a model of individual consumption and private property in terms of goods, to a consumption model where common-use goods are shared. It has already been implemented for several years in means of transportation, such as the bicycle (ecological) and the automobile, which seemingly promote environmental sustainability. But the contrary is demonstrated when considering the existence of gigantic bicycle cemeteries, where millions of bicycles are discarded

67. The separation of education and educational systems from biological premises and the family environment responds to socio-political processes. For example, in the opinion of S. Mitra, it was possible for the British Empire and its needs for social standardisation to reproduce a type of subject with a universal operator form. *The future of education*, [online video], 2015, https://youtu.be/pcjRLYVtS5E, (accessed 20 July 2018). Morin refers to "adaptive overpressure" [E. Morin, 'Sobre la reforma de la universidad' *Gazeta de antropología*, vol. 25, no. 1, 2009, http://www.ugr.es/~pwlac/G25_00Edgar_Morin.html.] that economic life, work, and the employment market exert on leading educational institutions such as universities.

68. He refers to the blindness of knowledge, relevant knowledge, the human condition, worldly identity, facing uncertainties, understanding, and the ethics of the human race. See E. Morin, *Los siete saberes necesarios para la educación del futuro*, Paris, UNESCO, 1999, pp. 9–12.

when they could still be used. The same could be said with respect to sustainability in general, which continues to be a hegemonic idea for solving the socio-environmental crisis. It constantly moves onward and becomes unattainable in the face of the permanence of economic and population growth.

Metatechnology and Education

In the metatechnological context, what stands out is the growth of global connectivity and how the new opportunities it offers become obstacles to the inclusion of the illiterate and the poor. In the same way, the introduction of robotics and artificial intelligence to everyday life frees human beings from routine intellectual and physical tasks, whilst at the same time producing profound changes in leisure and employment in the coming years (particularly in a significant portion of work that has served as a way out of extreme situations of crisis, such as construction work or driving vehicles). In turn, global connectivity and the accumulation of data on individuals favour the emergence of new forms of social control and changes in privacy.

Changes in employment, leisure, social control, and social life carried out in virtual environments directly impact human beings' socialisation, and they occur without us even having changed the ways we educate and prepare for living in this new world, engaging with the changes, and helping to guide them. As it is based on fragmentation, separation, and on instruction, repetition, and standardisation, the education we have prepares us to be dependent users or be excluded. Fundamental changes in education are required in favour of one that understands the complexity of the present moment in which humanity lives. It must be one that cannot be less than transdisciplinary, open to diversity and promoting human inclusion, and based on an epistemological foundation opposed to segmentation and simplification.

The consolidation of the metatechnological realm creates change that particularly affects the role of the teacher, which is called into question from various perspectives. For Mitra, the master transmitter of knowledge and the school to which he belongs are obsolete, and a shift towards "the cloud" and "grandmothers" is required; that is, a shift towards taking advantage of global connectivity, along with the participation and encouragement of students.[69] An attractive perspective, but too simple for the magnitude of the global problem that education faces: to form active citizens in a world of rapid change. P. Freire

69. *The future of education*, [online video], 2015, https://youtu.be/pcjRLYVtS5E, (accessed 20 July 2018).

had anticipated these problems when he pointed out the need for "educators" and not for teachers who transmit knowledge.[70]

Freirean pedagogy is broad and rich, and his nine demands for the act of education represent one of his concise formulations. They present teaching that problematises as an exercise of transdisciplinary research and teaching because of: the complex epistemology on which it is based, the implicit recognition of the complexity of the educational act, and the demand for research to deal with that complexity.[71] The educator in Freire is a subject that shares a complex and transdisciplinary epistemology and has transformed it into an attitude employed in teaching. It is not an isolated category with "the student" as yet another separate category in opposition to it, but one that does not exist without the other. Dialogue is the key exercise within the educational and cognitive relationship.[72]

Morin has reconsidered the question of the teacher in the global era in generalist metaphorical terms. He affirms that an "orchestra conductor" is needed for students with the new global circumstances and access to information online. This topic is further explored in this volume's chapter on dialecticism, the third pillar of Balanced and Inclusive Education. His or her function, similar to that of the ecologist, is such "that it allows for considering, criticising, organising knowledge". It is the reintroduction of the "*Eros* of the conductor, teacher or lecturer, who can and should guide the pedagogical revolution of knowledge and thought". In a class, the teacher would be "responsible for correcting, commenting, appreciating the student's contribution, to arrive at a true reflective synthesis on the subject in question, in dialogue with his or her students."[73] It is not a didactic matter.

70. A special place in the history of transdisciplinarity belongs to Freire, who proposed a complex and transdisciplinary epistemology based on his pedagogy that transformed education and educational research. [*The future of education*, [online video], 2015, https://youtu.be/pcjRLYVtS5E, (accessed 20 July 2018)]. His epistemological proposal begins with diversity contextualised by the subjects, and calls for educators to adopt a pedagogy of the question, which does not conceive educational research from the centrality of the exchange between subjects (educator-student) who together reconstruct the lexical universe that allows for reading the world. An example of this transdisciplinary pedagogy based on a complex epistemology is found in the so-called "literacy method", which he put into practice between 1957–1964. In this pedagogy, collaborative reconstruction and dialogue between types of knowledge generate the agenda and frame the literacy process, which is considered a creative process. [D. R. Streck, E. Redin, and J. J. Zitkoski (coord.), *Diccionario Paulo Freire*, Lima, CEAAL, 2015, p. 20, 42–44].

71. These demands include: methodical rigor in teaching; research; respect for students' own knowledge; critique as a transition from naive curiosity to critical curiosity; aesthetics and ethics; the embodiment of the words in the example; risk; adopting the new and rejecting any form of discrimination; critical reflection on practices; the recognition and acknowledgment of cultural identity. [P. Freire, *Pedagogía de la autonomía*. Mexico City, Siglo XXI, 2009, pp. 27–46].

72. P. Freire, *Pedagogía del oprimido*, s.l, s.a. p. 61, http://www.servicioskoinonia.org/biblioteca/general/FreirePedagogiadelOprimido.pdf.

73. E. Morin, *Enseñar a vivir. Manifiesto para cambiar la educación,* Buenos Aires, Nueva visión, 2015, p. 136.

Although its instrumentation goes through didactics, it is an epistemological issue, translated into the framework of a complex and transdisciplinary pedagogy.

C. Hurtado[74] and M.R. Mejía[75] insist on the need to rescue pedagogy, buried today in the managerial terminology which has invaded the educational landscape as a result of the transformation underway. They point out and systematise the pedagogical critiques deployed from the South, to which Morin and B. de Souza's[76] epistemological and political reflections must be added.

Nicolescu provides four fundamental ideas for transdisciplinary education: the epistemological knot formed by the recognition of levels of reality and perception; the logic of the third included; the relationship between presupposition, complexity, and transdisciplinarity; and the relationship between the epistemological position and attitudinal change.[77] These ideas encourage us to reconsider fundamental questions: What does it mean to educate? Who are the subjects of education and how are they related? How do we build open educational programmes capable of educating subjects within a dialogue that includes bio- and socio-diversity? How do we educate subjects capable of critically taking responsibility for their own existence in the global/local context where cultural domination prevails?

Despite criticism of political commitments and of the activism inherent in Freirean pedagogy, as well as the call to action contained in communications such as the *Charter of Transdisciplinarity* and *the Manifesto of Transdisciplinarity*, these two interpretations of transdisciplinarity clearly express the most relevant issues for education and research: the complexity-transdisciplinarity link, the epistemological difference between transdisciplinarity and other forms of organising knowledge, the need to reconstruct methodologies, and the relevance of the link between the epistemological, the evaluative and the attitudinal.[78]

74. C. H. Hurtado, *La transformación educativa. ¿Para qué y por qué educar?*, Vicente López, La Colmena, 2015, pp. 50–56.
75. M. R. Mejía Jiménez, *Educaciones y pedagogías críticas desde el sur*, Lima, CEAAL, 2011, pp. 19–50.
76. B. de Souza, *Epistemología del Sur. La reinvención del conocimiento y la emancipación social*, Buenos Aires, Siglo XXI-CLACSO, 2009, pp. 60–97.
77. B. Nicolescu, 'The Need for Transdisciplinarity in Higher Education in a Globalized World', *Transdisciplinary Journal of Engineering & Science,* online, vol. 3, pp. 11–18, (December, 2012).
B. Nicolescu, 'Towards transdisciplinary education', *International Conference Education of the Future, Memorial da América Latina, Parlamento Latinoamericano, Sao Paulo, Brazil*, *The Journal for Transdisciplinary Research in Southern Africa,* vol. 1 no. 1, pp. 5–16, December 2005. B. Nicolescu, *La transdisciplinariedad Manifiesto*.
78. The first three represent principles that are widely recognised as foundational to transdisciplinary research, whilst the fourth establishes the link between epistemology and attitudes based on values and morality, which is fundamental for education.

The transdisciplinary attitude is not an act, but a translation on the evaluative and moral plane of complex epistemology. It orients and demands rigour, openness, and tolerance from everyone (researcher, educator, or student). A dialogue in and of itself is not an exercise in conversation without an agenda – as discussed in other chapters of this volume dealing with the theme of the fourth pillar of Balanced and Inclusive Education, contextuality – but, rather, an exercise in paying attention to the general context and to the specifics of the subjects involved at the level of education being taught. It is dialogue based on openness to the network of subjects before them, and to the constraints each party brings, represented by their own limits.[79] Dialogue created within its movable boundaries allows for building educational programmes adjusted to the universality of the global context and the singularity of the local contexts. Beyond educating through dialogue, a different educational outcome is sought: that educated people become capable of understanding and expanding the boundaries of potential dialogues, because they have reached a level of critical thinking located in the local-global context.

Conclusion

The economic, political, social and cultural context presents us with a world in socio-environmental crisis that includes the following: a polarity between extreme wealth and extreme poverty; illiteracy amongst 750 million young people and adults, 63% of whom are women[80]; the ever present spotlight on wars and military tension; and new waves of migration and humanitarian crises.[81] The imminent change in the energy matrix on a global level, changes in the consumption model, and the sustainability crisis as a hegemonic idea add to the complexity of the situation. For its part, the metatechnological context is characterised by the growth of global connectivity and the new opportunities offered by metatechnology; the adoption of robotics and artificial intelligence in everyday life and in direct contact with human beings; and the emergence of new forms of social control.

The interaction of these contexts reveals a complex environment in which the continuation of human life requires facing up to significant educational and existential challenges. Living in this new environment calls for human beings endowed with critical and creative

79. Delgado outlines eleven conditions related to the dialogue of knowledge, for consideration in educational processes (C. J. Delgado Díaz, 'Conocimiento, conocimientos, diálogo de saberes', in Valdés, F. and León del Río, Y. (eds.) *La filosofía en su tiempo histórico*, Havana, Ciencias Sociales, Ruth Cuadernos de Pensamiento Crítico, No. 10, 2012, pp.159–180).

80. UNESCO Institute for Statistics, *Literacy Rates Continue to Rise from One Generation to the Next*, Fact Sheet No. 45 September 2017 FS/2017/LIT/45, 2017, http://uis.unesco.org/sites/default/files/documents/fs45-literacy-rates-continue-rise-generation-to-next-en-2017_0.pdf.

81. Morin, E. y C. Delgado, *Reinventar la educación,* 2016.

thinking, equipped to take part in dialogue and possessing social and natural diversity in such measure that they allow a new global citizenship to emerge, enabling collective responsible social actions. It is not enough to introduce one or several methods, or partial institutional and curricular changes in education. It is necessary to relocate the educational agenda and place education itself on to a foundation that pays attention to a diversity of subjects and communities, the complexity of the educational relationship, and the attitudinal change required to live in this new environment. Balanced and Inclusive Education constitutes this foundation, particularly through its second pillar: transdisciplinarity.

Education must return to its basic function of preparing human beings for life, and must be reinvented on a transdisciplinary foundation, amongst other things, so that human beings are able to live not only in the current complex world but also into the future. ■

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Transdisciplinarity: An overview

In *Rethinking Education: Towards a global common good?*, published by UNESCO in 2015[82], the purpose of education in the 21st century is set out to be inextricable from the global challenges which we face and the imperative to transform our societies to achieve sustainable development:

> The purpose of education must therefore be revisited in light of a renewed vision of sustainable human and social development that is both equitable and viable. This vision of sustainability must take into consideration the social, environmental and economic dimensions of human development and the various ways in which these relate to education: 'An empowering education is one that builds the human resources we need to be productive, to continue to learn, to solve problems, to be creative, and to live together and with nature in peace and harmony. When nations ensure that such an education is accessible to all throughout their lives, a quiet revolution is set in motion: education becomes the engine of sustainable development and the key to a better world.'[83] Education can, and must, contribute to a new vision of sustainable global development.

The roots of the modern education system are of particular importance. Conceived within the context of the industrial revolution, with the establishment of compulsory schooling laws throughout the 19th century:

> Mass education was the ingenious machine constructed by industrialism to produce the kind of adults it needed. […] The solution was an educational system that, in its very structure, simulated this new world. This system did not emerge instantly. Even today it retains throw-back elements from pre-industrial society. […] The whole administrative hierarchy of education, as it grew up, followed the model of industrial bureaucracy. The very organization of knowledge into permanent disciplines was grounded on industrial assumptions. […] The inner life of the school thus became an anticipatory mirror, a perfect introduction to industrial society.[84]

This legacy must be addressed if education is to be repurposed to serve sustainable development and a humanistic vision of the future. As identified by A. Toffler, one such legacy

82. UNESCO, *Rethinking Education: Towards a global common good?,* Paris, Auteur, 2015, http://unesdoc.unesco.org/images/0023/002325/232555e.pdf.
83. C. Power, *The Power of Education: Education for All, Development, Globalisation and UNESCO,* London, Springer, 2015.
84. A. Toffler, *Future Shock,* Penguin Random House, LCC., USA, 1970.

is the organisation of knowledge into permanent, segregated disciplines – mathematics, philosophy, history, biology, physics, literature… The global challenges which face the world in 21st century, from climate change to persisting poverty, cannot be addressed by mono-disciplinary means, for "all the great themes are polydisciplinary"[85] in their nature. The disciplinary form of education within the context of the imperative that is sustainable development, therefore, is *itself* unsustainable.

It is through this rationale that *transdiscplinarity* as an approach to education emerges as a necessity for sustainable development. The disciplinary approach to education is one which is effective in producing hyper-specialisation, but the cost of this efficiency is a form of *blind intelligence*, incapable of integrating knowledge domains in a coherent whole.[86] This approach is not, however, to be mistaken as *anti*-disciplinary nor reduced to inter-disciplinarity. It is, rather, an organisation and production of knowledge *between*, *across*, and *beyond* disciplines[87], providing a framework in with the "potential to make knowledge produced increasingly relevant to analysing pressing global challenges".[88]

With the ongoing development of the contemporary technological revolution, the world is undergoing unprecedented transformation. This has led numerous stakeholders, across sectors, to announce the emergence, if not already underway, of a 4th Industrial Revolution. It has three, distinctive characteristics:

> **Velocity**: Contrary to the previous industrial revolutions, this one is evolving at an exponential rather than linear pace. This is the result of the multifaceted, deeply interconnected world we live in and the fact that new technology begets newer and ever more capable technology.
>
> **Breadth and depth**: It builds on the digital revolution and combines multiple technologies that are leading to unprecedented paradigm shifts in the economy, business, society, and individually. It is not only changing the "what" and the "how" of doing things but also "who" we are.
>
> **Systems Impact**: It involves the transformation of entire systems, across (and within) countries, companies, industries and society as a whole.[89]

85. Preface, Edgar Morin.
86. Morin, E., *Introduction à la pensée complexe,* Paris, Le Seuil, 2005.
87. B. Nicolescu, *From modernity to cosmodernity*. Albany, NY: SUNY, 2014.
88. E. Darian-Smith and P. McCarty. 2016. *Beyond Interdisciplinarity,* Transcience Vol.7, Issue 2. ISSN 2191-1150.
89. K. Schwab, *The Fourth Industrial Revolution,* https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab (accessed 17 October 2018).

The world would be – and, to a large extent, already is – overhauled and shaped, therefore, by disruptive forces, which will radically transform not only our ways of life, but also our very beings. Assuming that the 4th Industrial Revolution will not be hindered, education systems will now, in effect, be required to develop:

1. The capacity for complex analysis and solutions; for instance:

   The rise and spread of Autonomous Artificial Intelligence (AI) systems, with the risk of perverse instantiation[90], morphs certain philosophical dilemmas which had, until now, been considered to be mere thought experiments into imminent realities to be resolved. The case of self-driving cars is particularly pithy: Artificial Intelligence notwithstanding, under the bonnet of self-driving cars nonetheless lies complex programming from human programmers. Although much of the rationale behind self-driving cars is the reduction of accidents, these programmers have to provide instructions to the self-driving car for the inevitable, even if rare, car accident. The consensus, there, seems to programme the car so as to minimise casualties – namely, if a self-driving bus and a self-driving car were to collide, the self-driving car would, should the need arise, be sacrificed. *Prima facie*, this seems sensible. But as the trolley problem, first articulated by Philippa Foot[91] but then countlessly retaken and revised, demonstrates, the principle may prove to be more difficult to articulate than at first thought. This is a minute, yet concrete example where disciplines, which are currently segregated in contemporary education, converge in a complex reality, requiring a transdisciplinary approach.

2. Preparedness for the disruptive forces and transformations shaping the future; for instance:

   In the case of self-driving cars, should this innovation come to realisation, it is to be expected that numerous industries would disappear or be completely transformed, with their own sets of consequences from taxi-chauffeur services to insurance, passing by the law (who is held to account for an accident by a self-driving car and who is at fault?)

In the case of Artificial Intelligence more generally, not only would many predictable careers disappear or require so great a modification that they would, in effect, be entirely different careers, but also many career prospects that we would assume to be desirable in

90. N. Bostrom, *Superintelligence: paths, dangers, strategies,* Oxford University Press, UK, 2014.

91. P. Foot, *The Problem of Abortion and the Doctrine of the Double Effect in Virtues and Vices,* Oxford: Basil Blackwell, 1978 (originally appeared in the Oxford Review, Number 5, 1967).

such a future may, in fact, be rendered obsolete – it is noteworthy that the primitive, basic foundations for Artificial Intelligence to be capable of writing programmes itself already exist.[92]

Both requirements make the need for a transdisciplinary education become all the more urgent. The first requirement can, once again, only be addressed by an approach which is capable of approaching the world and reality in its globality and complexity, including uncertainty, and comprehending the perpetual nature of inter-retro-activity. The second requirement further emphasises the importance of transdisciplinary education, as it is not merely a more comprehensive transmission of information and knowledge. It is, more importantly, the development of a transdisciplinary mindset, a complex thought capable of drawing connections between academic and non-academic knowledge domains in relation to a complex and, perhaps, complexifying world. This is of particular fundamental to any education for the future, as education systems have historically and inevitably been deficient in predicting and preparing for the transformations of the labour market, perpetually seeking to catch up with such change. In other words, in addition to enabling the analysis of the world in all its complexity and the ramifications of perpetual inter-retro-activity, a transdisciplinary education does not attempt a vain chase after an ever-accelerating transformation of the world but, rather, enables and develops intrinsic skill of *adaptability*.

It is crucial to reiterate that a transdisciplinary education is not anti-disciplinary. Its approach of producing knowledge between, across and beyond disciplines implies the existence and the requirement of disciplines, as well as non-academic knowledge domains. Disciplines will continue to exist – it is the approach to them that must change. ■

92. M. Balog et al, *DeepCoder: Learning to Write Programs,* https://openreview.net/pdf?id=ByldLrqlx, 2017.

Transdisciplinarity

GUIDING PRINCIPLE
Through the use of knowledge domains as interconnected parts of a broader whole, education addresses issues in all their complexity

OVERALL GOAL
Develop transferrable skills, as well as integrated and complex thinking

Outcomes	Outputs	Output Achieved	Level of Outcome Alignment			
			Minimal alignment	Partial alignment	High alignment	Full alignment
OUTCOME C Flexible and integrated use of knowledge domains	CURRICULUM		Output C.1 achieved	Outputs C.1 and C.2 achieved	Outputs C.1, C.2, and C.3 achieved	All Outputs achieved
	Output C.1: Curriculum links and integrates various disciplines and (academic and non-academic) knowledge domains	❑				
	Output C.2: Introduction of topic-based courses mobilising different knowledge domains	❑				
	PEDAGOGY					
	Output C.3: Conducting activities demonstrating that knowledge domains are constantly inter-retro- acting and, therefore, interconnected	❑				
	Output C.4: Conducting complex activities mobilising different knowledge domains	❑				
OUTCOME D Critical and contextualised use of knowledge domains	CURRICULUM		Output D.1 achieved	Outputs D.1, and D.2 achieved	Outputs D.1, D.2, and D.3 achieved	All Outputs achieved
	Output D.1: Introduction of theoretical and practical applications requiring the mobilisation of various integrated knowledge domains	❑				
	Output D.2: Integration of interpersonal, emotional, and intuitive intelligence, as well as social skills	❑				
	PEDAGOGY					
	Output D.3: Conducting activities and case studies demonstrating that all actions are based on elements, factors and events constantly inter-retro-acting	❑				
	Output D.4: Learners, subsequent to the identification and analysis of societal problems, engage with various external stakeholders to pro-actively participate in social projects requiring the mobilisation of different and various knowledge domains	❑				

Dialecticism

Interactional and synergetic approach based upon problem-posing dialogue and critical exchange, for free and critical thinking through the proactive participation of learners

Dialecticism: Giving Birth to the Student-Protagonist

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> **"Understanding is a two-way operation; learning doesn't consist in being an empty receptacle. The learner has to question himself and question the teacher. He even has to argue with the teacher, once he understands what the teacher is saying."**
>
> – Mortimer J. Adler, *How to Mark a Book (from The Saturday Review of Literature,* July 6, 1941)

Dialecticism, together with Intraculturalism, Transdisciplinarity, and Contextuality, as discussed in other sections of this volume, constitute the four pillars of Balanced and Inclusive Education as conceptualised by the Education Relief Foundation (ERF). The four pillars of Balanced and Inclusive Education set the stage for viewing the act of learning and the acquisition of knowledge, not as static, but as a dynamic, multi-dimensional process. Through collective reflection, dialogue, self-questioning and critical exchange, dialecticism as an educational approach requires students to become engaged and involved in the educational process.

The world's population is polarised – those with access to an education and those deprived of the same, those with and those without power, dominant cultures and marginalised cultures, only to mention a few dichotomies.

In the backdrop of this polarity, the gap between the rich and the poor continues to increase. The World Inequality Report shows that there exists extreme wealth distribution disparity in eight global geographic regions.[93] In Europe, 10% of the population accounts for 37% of the regional revenue. In other regions, the revenue disparity is greater: China (41%); Russia (46%); North America (47%); in Brazil, India and sub-Saharan Africa (55%). In

93. The World Inequality Database, 'Executive Summary', Washington D.C., Author, 2018, https://wir2018.wid.world/executive-summary.html.

the United States an even larger disparity in wealth distribution exists between Whites and minority populations. Median White families are nearly 10 times wealthier than median Black families and 8 times as much as median Hispanic families.[94] In sum, a status quo consisting of the "*haves*" and the "*have-nots*".

This status quo extends into education, where a disparity in schooling and learning is also discernible, betraying its equalising promise. Needless to say, considerable advances have been made on this front over the past decades: The Global Partnership Report indicates that amongst the more than 65 developing country partner countries, improvements were made in education sector planning and domestic financing and in primary and secondary school completion rates. Yet, it also indicates that the number of out-of-school, primary and lower secondary school age students is increasing.[95] Furthermore, the report indicates a shortage of qualified teachers and a poor ratio of qualified teachers to students. Another World Bank document states that:

> Worldwide, hundreds of millions of children reach young adulthood without even the most basic life skills. Even if they attend school, many leave without the skills for calculating the correct change from a transaction, reading a doctor's instructions, or interpreting a campaign promise – let alone building a fulfilling career or educating their children.[96]

And whilst this inequity in wealth distribution and in education primarily lies between developed and developing nations, it also exists both *within* developed and developing nations amongst marginalised, minoritised or non-majority populations.

It is in this context that the cruciality of dialecticism as an educational approach emerges. Plato's cave provides, here, a powerful metaphor: by requiring students to become engaged and involved in the educational process, through collective reflection, dialogue, self-questioning and critical exchange, dialecticism becomes a tool to collectively redefine the shadows on the walls and offer alternative, more equitable realities.

Dialecti*cism*, as defined within its role as a pillar of Balanced and Inclusive Education, finds its roots in both the concepts of Dialectic and Dialogic thinking. The Greek roots for dialectic connect "dia-" (across, between) with "-legein" (to speak); dialogic is intrinsically linked

94. B. Thomson, 'The Racial Wealth Gap: Addressing America's Most Pressing Epidemic', *Forbes,* 18 February 2018, https://www.forbes.com/sites/brianthompson1/2018/02/18/the-racial-wealth-gap-addressing-americas-most-pressing-epidemic/#14d0773e7a48.

95. Global Partnership for Education, 'Results Report 2018', Washington D.C., Author, 2018, https://www.globalpartnership.org/content/results-report-2018.

96. The World Bank, *World Development Report 2018: Learning to Realize Education's Promise,* Author, Washington D.C., 2018, http://www.worldbank.org/en/publication/wdr2018.

to "dialogue", which connects "dia-" with "logos," (word, speech, statement).[97] To engage in dialecticism, therefore, one must engage in both in a dialogue with one or more parties and in a critical reflection or critical exchange with others. The object of the dialogue is to posit, propose, discuss, enquire, share, and evaluate knowledge and reality through multiple angles and perspectives. Through an internal reflection, on the other hand, one can engage in a dialogue with one's self about alternative perspectives of reality in relation to one's own; by critical exchange, one can weigh the merits and faults of divergent or convergent worldviews, religious and societal values, historical and scientific facts, political and social projects, ideas and ideals.

This process of engaging in dialecticism relates, therefore, both to an oral and written educational process. It is, in short, dialogue as education and critical assessment as methodological approach to reach a conclusion or resolution. Notwithstanding, dialecticism's use of dialogue does not suppose credulous acceptance, nor does its use of critical exchange and reflection imply inevitable disagreement. Dialogue does, however, imply the unprejudiced quest to understand alternative perspectives and their rationale, whilst 'to agree is just as much of an exercise in critical judgement […] as to disagree.'[98] Accordingly, the process of dialecticism, in an infinitely diverse and perpetually evolving world, has no absolute finality, and any finality reached is, in absolute terms, relative: once a new a status quo is attained, the process can always be reinitiated.

Whereas the existing didactic method of education, which considers students as vessels to be filled with information and dictated conclusions, supposes a static, homogenous world; dialecticism, which considers students as protagonists in their education by enabling them to pursue a 'restless, impatient, continuing, hopeful inquiry […] in the world, with the world, and with each other'[99] recognises the world to be perpetually evolving and infinitely diverse. In effect, the continuous interplay between dialectic and dialogic thinking – resulting in observing, questioning, deconstructing, and constructing – challenges the positivist and ideological view of reality as based on purely objective and universal truths, laws, and values. It opens the way for a constructivist approach to reality, holding worldviews as social constructs, and that individuals in society make meaning based on their experiences thereby allowing for different worldviews and alternatives to the status quo. In essence, dialecticism does not, and cannot, transmit an ideology to students but, rather, enables them to construct, individually and collectively, their own views of the world.

97. Online Etymology Dictionary, https://www.etymonline.com
98. M. J. Adler and C. Van Doren, *How to read a book,* New York, Simon and Schuster, 1972, p. 115.
99. P. Freire, *Pedagogy of the oppressed,* New York, Continuum, 2000, p. 53.

This constructivist approach to the child development process can be found in both Piaget and Vygotsky, who each viewed the developmental and learning process in children as the interplay between cognition and social interaction. Piaget reflected on a child's cognitive development over time and how their cognitive development was shaped by their environment. Piaget's understanding of the learning process of children was that children were born with a basic capacity to learn that evolved over time in stages. His views were that this basic children's innate capacity engaged with their environment to enable them to construct and to deconstruct their worldview, in moving from one developmental stage to another. In Piaget's view, children constructed an understanding of their worldview through their evolving developmental maturation process and their interaction with their environment. For Piaget, a child's learning capacity was primarily determined by her biological development stage and how they interacted with their environment to facilitate the learning process. Given our experience with children, one can reflect on how strong the worldview that they construct is and how often it conflicts with the worldview of adults. One can also reflect on the evolving, constructivist worldview of children on their journey to becoming young adults.

Yet, whilst Piaget and Vygotsky shared some common views on child development and constructivism, Vygotsky's view emphasised that social interaction is foundational for the development of cognition in children:

> Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals.[100]

Dialogue being a central component of dialecticism, it must be thought as indissociable from Vygotsky's constructivism, which holds that worldviews are based on meanings created by individuals through their interpsychological and intrapsychological experiences. Dialecticism, thus, is intrinsically a social and interpersonal approach. From this conclusion, it is inevitable to infer and deduct that dialecticism – as an intrinsically social and interpersonal educational approach – and language – as 'a fixed function, characteristic

100. L. S. Vygotsky, *Mind in Society,* Cambridge, Harvard University Press, 1978, p. 57.

of the species, one component of the human mind'[101] which is 'what made us human'[102] share an inextricable relationship.

Language does not only facilitate the process of dialecticism as described above, but it also completes it, for its purpose is more than to merely provide information. In Gee's view, language discourse has two primary functions:

> (1) …to scaffold the performance of action in the world, including social activities and interactions…; (2) …to scaffold human affiliation in cultures and social groups and institutions through creating and enticing others to take certain perspectives on experience.[103]

Rogers, drawing from Gee and Cazden, takes language and discourse one step further and into the realm of critical discourse analysis. For Rogers, "Critical approaches to discourse analysis recognise that inquiry into meaning making is always also an exploration into power".[104] Rogers relates the concepts of critical social theory to critical discourse for the purpose of addressing disruptive alternatives to social power structures and inequities. For Rogers, critical discourse takes Cazden's "discourse as talking" and "discourse as different ways of understanding" not only in the direction of academic accomplishment but in the pursuit of questioning existing societal norms and eliminating inequities and forging social justice. Language, accordingly, is the overarching communication act, through discourse, that encapsulates the constructivist act of sense making and, hence, establishes the potency of dialecticism in the process of education.

Learning, however, first occurs at home. When a child is born, she absorbs her body of knowledge using her senses from the entire environment within her reach. The body of knowledge she creates comes from her parents and relatives around her. It also comes from her peers within her community. Drawing on Vygotsky's work as referenced above, the interpsychological and intrapsychological stages of a child's cultural development apply "equally to voluntary attention, to logical memory, and to the formation of concepts."[105] It is, hence, clear that the nexus between language and dialecticism is so that the issue of the socio-cultural background and mother tongue of students, as the vehicle

101. N. Chomsky, 'On the nature of language', *Annals of the New York Academy of Sciences,* vol. 280, Issue 1, 1976, p. 46.

102. G. Deutscher, *The Unfolding of Language: An Evolutionary Tour of Mankind's Greatest Invention,* Holt/Metropolitan, New York, 2006, p.1.

103. J.P. Gee, 'Reading as Situated Language: A Sociocognitive Perspective', *Journal of Adolescent & Adult Literacy,* 44(8), 714–725, 2001, p. 714.

104. R. Rogers, *An Introduction to Critical Discourse Analysis in Education,* Routledge, New York, 2011, p.2.

105. L. S. Vygotsky, *Mind in Society,* p. 57.

of their prior sense making and knowledge, becomes essential to the realisation of the process of dialecticism.

Nevertheless, the global norm remains one in which the mother tongue of students is either non-existent or gravely neglected in formal education settings. This serious neglect is often justified on the grounds of financial and logistical strain, lack of learning materials, and lack of qualified teachers, amongst other causes. These are, prima facie, certainly legitimate concerns. But the data demonstrating the results of this neglect of mother tongue education is alarming. A report from the Global Campaign for Education states that:

> …in developing countries, an estimated 221 million children enter the classroom unable to understand the language they are taught in. Many countries teach in the old colonial language, or in a dominant national or international language, which young children do not speak at home.[106]

A World Bank report (2005) states:

> Fifty percent of the world's out-of-school children live in communities where the language of the schooling is rarely, if ever, used at home. This underscores the biggest challenge to achieving Education for All (EFA): a legacy of non-productive practices that lead to low levels of learning and high levels of dropout and repetition.[107]

A UNESCO report (2009) states that:

> Where instruction, curriculum and materials are not in the mother tongue and do not take account of the child's known world, the result is widespread non-attendance, increased repetition and low achievement levels.[108]

It further includes that:

> In a study of data from 160 language groups in 22 developing countries it was found that not using mother-tongue languages was a major cause of non-enrolment and dropout. Those with access to instruction in their mother tongue were significantly more likely to be enrolled and attending school.[109]

106. P. McKenzie and J. Walker, 'Mother-tongue Education: Policy Lessons for Quality and Inclusion', *Campaign for Education,* http://www.campaignforeducation.org/docs/reports/GCE%20Mother%20Tongue_EN.pdf, 2013, p.3

107. The World Bank, *Education Notes: In Their Own Language…Education for All,* Washington D.C., Author, 2005, http://siteresources.worldbank.org/EDUCATION/Resources/Education-Notes/EdNotes_Lang_of_Instruct.pdf.

108. Smits, J., et al., *Home language and education in the developing world,* UNESCO, Nijmegen, 2009, http://unesdoc.unesco.org/images/0017/001787/178702e.pdf.

109. Smits, J., et al., 2009.

There is also strong evidence that the concern in terms of the costs for offering mother tongue education is unwarranted: a study shows that in Guatemala, offering mother tongue bilingual schooling saved US$5.6 million a year through reducing dropout and repetition amongst students whose home language was not Spanish. The report also shows that in Mali, educating non-French speaking students in French to the exclusion of their mother tongue costs about 27% more because of high repetition in dropout rates.[110]

The persistence of this norm globally, despite the alarming evidence of its unambiguous failure and the manifest benefits of the integration of mother tongue education, is highly indicative of the profound limitations and adverse effects of the didactic method prevailing in education systems around the world. By treating students as *tabulae rasae* to be filled with facts and information, a didactic education supposes the inconsequentiality of the world and knowledge external to the formal education setting. Dialecticism, on the other hand, by treating students as proactive participants and, ergo, co-creators of their education, acknowledges the world and knowledge external to the formal education setting not only as relevant, but also as quintessential to the educational process. Didactic education is structurally contemptuous of mother tongues, because students, meant to be or become empty vessels during their education, do not carry, in the eyes of the education setting, prior knowledge of importance as they will be provided with the facts and information that is deemed necessary. On the other hand, dialecticism, being indissoluble from language and the constructivist nature of discourse as the act of sense making, is structurally bound to integrate the socio-cultural background and mother tongue of students in the formal education setting. In sum, by acknowledging learning as a social event, as much as cognitive one, amongst family members and one's community as well as peers and teachers in formal education settings, Balanced and Inclusive Education, through the pillar of Dialecticism, gives long overdue birth to the *student-protagonist*. ■

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110. P. McKenzie and J. Walker, 'Mother-tongue Education: Policy Lessons for Quality and Inclusion', *Campaign for Education*, http://www.campaignforeducation.org/docs/reports/GCE%20Mother%20Tongue_EN.pdf, 2013.

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Dialecticism: An Overview

Education systems around the world have, historically, leaned towards the didactic approach to education. In this approach, which is still the standard across the world, the teacher, pro-active transmitter, confers to students, passive receptacles, the information and knowledge which is deemed necessary. In effect, this method prohibits students from participating in their own learning process. This does not come without consequence:

1. Students do not have the opportunity to exercise their reflective and reflexive faculties. In a report published by the Royal Society in 2011, *Neuroscience: implications for education and lifelong learning*, indicates that: "The brain has extraordinary adaptability, sometimes referred to as 'neuroplasticity'. This is due to the process by which connections between neurons are strengthened when they are simultaneously activated; often summarised as, 'neurons that fire together wire together'.[111] And whilst this "effect […] known as experience-dependent plasticity […] is present throughout life"[112], it is nonetheless true that "Plasticity tends to decrease with age". As it relates to the didactic method of education, it becomes evident that the segregation of the transmission of knowledge from the inquiry and production of knowledge, would have inhibiting effects upon the faculty of students to simultaneously absorb and filter, dissect, and criticise information and knowledge.

2. Students are deprived of a pro-active voice within their education. Yet, as Caden (1998)[113] elaborates, dialogue is not merely "discourse as talking" but is also, and perhaps most importantly, "discourse as different ways of understanding." The prohibition of discourse and dialogue in the formal school setting, between teacher and students as well as amongst students, would therefore not only be detrimental to the achievement of certain analytical skills and competencies, but also to the efficaciousness of the learning process itself.

It must be noted, however, that the international consensus on this matter seems to lean in favour of moving away from the didactic approach. In *New Vision for Education: Unlocking the Potential of Technology*, published in 2015 by the World Economic Forum

111. D. Hebb, *The Organization of Behavior*, Wiley, New York, 1949.

112. M. Lovden, L. Backman, U. Lindenberger, F. Schaefer S & Schmiedek, *A theoretical framework for the study of adult cognitive plasticity*, Psychol Bull 136(4),659–76, 2010.

113. C.B. Cazden, *Classroom Discourse: The Language of Teaching and Learning*, Heinemann, 1998.

(WEF), for instance, critical thinking is counted amongst the "16 most critical 21st Century skills" identified by the publication.

To thrive in a rapidly evolving, technology-mediated world, students must not only possess strong skills in areas such as language arts, mathematics and science, but they must also be adept at skills such as critical thinking, problem-solving, persistence, collaboration and curiosity.[114]

The contemporary literature emphasising the importance of critical thinking skills, problem-solving, and collaboration is, accordingly, nothing short of abundant. Beyond the dawdling operationalisation of such educational policies, these approaches have a particular set of limitations – precisely because they focus on problem-*solving* rather than problem-*posing*. As evidence of critical thinking, the problem-*solving* approach provides problems whose solutions are expected to be elaborated – in sum, students are expected to find the answer to a question. But thinking, as reflected by the scientific method, relates more to the capacity of articulating the right questions, rather than merely finding the right answer.[115] The Brazilian educationalist Paulo Freire, in his seminal work *Pedagogy of the Oppressed*, denotes the centrality and difference of a problem-posing education:

> Problem-posing education bases itself on creativity and stimulates true reflection and action upon reality, thereby responding to the vocation of men as being authentic only when engaged in inquiry and creative transformation.[116]

This is the fundamental difference, therefore, between the problem-*solving* and the problem-*posing* education, as they relate to the didactic approach: the problem-*solving* approach is no other than the didactic method which has conceded some ground to reform, whereas the problem-*posing* approach is a veritable severance with the didactic method. This is where the relevance of *dialecticism* as an educational approach is revealed.

As an approach, *dialecticism* translates in a consistent engagement in a dialogue with others and critical exchange. Dialogue enables the formal school setting to become a safe third-space where students and teachers may express, discuss, and exchange diverse views and ideas about the world. This dialogue, however, does not imply credulity or naivety. It must result on a critical reflection and, eventually, a critical exchange with the interlocutor enabling the reaching of a conclusion by identifying discrepancies and contradictions. On

114. *New Vision for Education: Unlocking the Potential of Technology*, the World Economic Forum (WEF), http://www3.weforum.org/docs/WEFUSA_NewVisionforEducation_Report2015.pdf, 2015.

115. R.D. Vale , The Value of Asking questions, Molecular Biology of the Cell, https://www.molbiolcell.org/doi/10.1091/mbc.e12-09-0660, 2013.

116. P. Freire, *Pedagogy of the Oppressed,* New York, Continuum, 2000.

the other hand, this critical exchange is not to be mistaken for systemic contradiction – to agree, following dialogue and critical exchange, is as much the practice of critical judgement as to disagree.[117]

Grounded in *dialecticism*, the dynamics of the formal school setting are transformed. This is not to announce the obsolescence of the teacher or the disappearance of the transmission of knowledge in the educational process. It does, however, imply a transformation of the role of the teacher who is no longer the ultimate guardian of truth and knowledge, which students could today access independently, but a facilitator, a mediator, and a synthesiser – in sum, the conductor of an orchestra. The students, in turn, morph from empty receptacles to be filled with facts and information into protagonists and co-creators of their own education, simultaneously engaging with and critically producing knowledge. ■

117. M.J., Adler, 'How to Mark a Book', *The Saturday Review of Literature,* 6 July 1941.

Dialecticism

GUIDING PRINCIPLE
Through interactive dialogue, critical exchange, and collective reflexion, learners are protagonised within their education and communities

OVERALL GOAL
Develop free and critical thinking, as well as learner agency

Outcomes	Outputs	Output Achieved	Level of Outcome Alignment			
			Minimal alignment	Partial alignment	High alignment	Full alignment
OUTCOME E Use of maieutic, critical, and problem-posing pedagogy	PEDAGOGY		Output E.4 achieved	Outputs E.4 and E.3 achieved	Outputs E.4, E.3, and E.1 achieved	All Outputs achieved
	Output E.1: Course objectives are reached through a series of probing questions (posed by the teacher) and critical exchange (both between teacher and as well as amongst learners)	❑				
	Output E.2: Conducting collective problem-centred (problem-posing and problem-solving) exercises which the teacher acts as a facilitator and mediator to the student-led exchange of ideas and arguments	❑				
	Output E.3: Learners propose themes which are integrated, following a critical exchange on the relevance of the proposed themes to the course, and then collectively discussed	❑				
	Output E.4: Learners are asked to select articles (newspapers, magazines, journals) relevant to the course or theme for collective discussion and critical exchange on the nature and content	❑				
OUTCOME F Acquire the inspectional, analytical, and syntopical skills required to engage with information, data, and ideas	CURRICULUM		Output F.5 and F.4 achieved	Outputs F.5, F.4, and F.1 achieved	Outputs F.5, F.4, F.1, and F.2 achieved	All Outputs achieved
	Output F.1: Contending ideas, theories, manuscripts and perspectives on historical and contemporary events as well as concepts and scientific hypotheses are included for analysis	❑				
	Output F.2: Course objectives are articulated by identifying and resolving (inner and inter) contradictions of contending material	❑				
	PEDAGOGY					
	Output F.3: Relevance of information, data, and concepts is determined by a process of identification, extraction, and comparison with other sources	❑				
	Output F.4: Information and data are systematically studied to identify partiality and distortion	❑				
	Output F.5: Sources are systematically studied to assess their objectivity and credibility	❑				
	Output F.6: Learners are required to critically reflect on their own thought-processes (metacognition)	❑				

Contextuality

Context-centred approach based upon the integration and adaption to the realities, values, and interpretive frameworks of the learners, to develop their sense of co-ownership and co-creation

Using Contextuality to Achieve Rebirth of Schools: A View from the Global South

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Schools have historically been designed as a one-size-fits-all solution, a configuration that is particularly true with the typical "round hole" public schools. With a common curriculum and standards, similar rules and comparable day-to-day school practices, the traditional school construct rears and educates students in a formal setting that is oblivious to the diversity of their socio-economic and cultural backgrounds, not to mention their respective individuality. In their configuration and processes, these standardised formal education settings, perhaps inadvertently, are effectively an attempt to homogenise a diverse, heterogenous body of students. The high dropout rates, the disconnect between academia and local communities, the gap between investment in education policy and the efficacy of educational practice, however, indicate that this norm of standardisation is ineffective – diversity's response to standardisation is not to dissipate, but to transform into alienation, dulling the potential and potency of education. It is, accordingly, essential for education systems to recognise the diversity of students and to consequently contextualise education. Further, because schools are *constructs*, they can then also be *deconstructed*. Constructivism, social constructivism and appreciative inquiry provide the necessary grounding and momentum for transforming schools into their positive potentials. This chapter serves to explore how these theories of learning and human and organisational change are put into practice in public secondary schools through the practical case of Project APEX in the Philippines.

There have been a good number of debates on how best to position secondary education, this being an important linchpin in a country's education system. The Philippine Department of Education has instituted significant reform interventions to transform the country's education landscape on a large scale. However, with uncertainty and complexity as the new norm, transformation in schools and communities cannot occur with more of the same solutions. In select communities in the Philippines, the Department of Education endeavoured to deconstruct the definition of secondary school through a model called Applied Academics for Excellence (APEX). Anchored in the concepts and principles of constructivism, social constructivism and appreciative inquiry, the APEX framework presents the ways in which different elements such as school and community contexts, local economic directions and learning strategies can come into play in developing schools and communities.

APEX is a community-based education project that connects secondary schools to the cultural and socio-economic development framework of the community through meaningful collaboration and governance of basic education.[118] It academically and technically prepares the youth to pursue post-secondary education and a career or enterprise of choice by exposing them to relevant curricula, interactive activities and real-life applications.

APEX transforms a regular high school into a constructivist school, the focus of which tends to shift from teacher to students. The classroom is no longer a place where the teacher "expert" pours knowledge into passive students who wait like empty vessels to be filled. In the constructivist model, the students are actively involved in their own learning process. In this arrangement, both teachers and students think of knowledge as a dynamic, ever-changing view of the world we live in and the ability to successfully stretch and explore that view, – not as inert factoids to be memorised.

With the APEX objectives in mind, strategic and operational shifts were undertaken in the operations and management of the covered schools. This prompted the redefinition of the schools' strategic directions, which was a result of the process of deeply understanding the context and development agenda of the surrounding communities, making the schools more responsive and relevant. This was achieved using the strength-based approach in strategic planning with the active support and collaboration of project stakeholders, local government units, school administrators, and different local organisations, as effective contextuality requires a cross-sectoral approach, mustering the knowledge and skills of all layers of society.

118. Seameo Innotech, *Applied Academics for Excellence (APEX) Operations Manual,* SEAMEO INNOTECH, UP Diliman, Quezon City, 2008, pp. 3–6.

Another theory in deconstructing the definition of schools is social constructivism. Social constructionists argue that meanings cannot be pre-assigned by a third party; they only emerge in relationship, and even then, such meanings are multiple, partial and dynamic. This theory is the post-modern expanded adaptation of constructivism. It places a premium on the types of relationships we have and how relationships have a huge influence on the way we construct knowledge.

Following the theory of social constructivism, families and communities surrounding the APEX schools are actively engaged in the entire learning process and are interlinked and interconnected in order to rally around the topic of youth success. The local authorities are deeply engaged to ensure the efficacy of the APEX approach in squarely contributing to the development and growth of the community. Two aspects of the changes at school level are the establishment of an effective communication system and the development of a school-based project management plan that facilitates the exchange of information and experiences as well as monitoring of projects.

There is a great deal of overlap between a constructivist and social constructivist classroom alongside the greater emphasis placed on learning through social interaction and the value placed on cultural background. In social constructivist classrooms, collaborative learning is a process of peer interaction that is mediated and structured by the teacher. Discussion can be promoted by the presentation of specific concepts, problems or scenarios, and is guided by means of effectively directed questions, the introduction and clarification of concepts and information, and references to previously learned material. The expectation within a constructivist learning environment is that the students play a more active role in and accept more responsibility for their own learning.

In APEX classrooms, the contents were introduced using a variety of active learning methodologies, which enabled learners to connect what they already know with what they are expected to learn and to discover new knowledge from the processing and analysis of the various sets of information. The pedagogy utilises five essential engagement strategies: Relating, Experiencing, Applying, Cooperating and Transferring, or the REACT Strategy.[119] Learning experiences are created using these strategies, which are designed to help students build new skills and knowledge regardless of their starting point. In greater detail, they comprise:

> **RELATING:** Learning in the context of life experience allows learners to relate familiar situations to the new information to be processed or the problems to be solved.

119. Center for Occupational Research and Development, 'REACTing to Learn', *CORD,* Texas, USA, http://www.cord.org/cord_ctl_react.php, (accessed 29 September 2018).

EXPERIENCING: Learning in the context of exploration, discovery and invention is facilitated when learners are enabled to manipulate equipment and materials.

APPLYING: Learning by using new concepts and information in a useful context allows learners to envision future success in careers and post-secondary education. Applications involve occupational activities and real-world tasks. These learning experiences are supplemented with presentations by community-based resource persons or parents who have expertise on the subject area and are followed up with first-hand experiences such as plant tours, mentoring arrangements and internships.

COOPERATING: Learning in the context of sharing, responding, and communicating with others is a primary instructional strategy. The experience of cooperating not only helps the majority of learners to learn the material, it is also consistent with the real-world focus of contextual teaching.

TRANSFERRING: Learning in the context of existing knowledge, or transferring, uses and builds upon what the learner already knows. Learning to transfer familiar information to new contexts helps learners approach unfamiliar situations and problems with confidence.

In using the REACT strategy in class, APEX teachers: critically reflect on and interpret the subject matter; find multiple ways to represent the information as analogies, metaphors, examples, problems, demonstrations, and/or classroom activities; adapt the material to students' developmental levels and abilities, gender, motivations, prior knowledge, and misconceptions; and finally, tailor the lesson to specific individuals or groups of students, i.e. they are able to see a specific set of concepts from a variety of viewpoints and from a variety of levels and contexts in which students are asked to learn, depending on the needs and abilities of the students. The teachers' adoption of the REACT strategy is complemented with the use of the appreciative pedagogy, to be discussed further below, which regards students' prior knowledge and experiences as relevant and valuable in the overall learning process.

Another theory that supports the deconstruction of our current definition of schools is Appreciative Inquiry (AI). Appreciative Inquiry is the cooperative search for the best in people, their organisations, and the world around them. It involves the systematic discovery of what gives a system "life" when it is most effective and capable, in economic, ecological, and human terms. AI involves the art and practice of asking questions that strengthen a system's capacity to heighten its positive potential. It mobilises inquiry through crafting

an unconditional positive question, often involving hundreds or sometimes thousands of people.

AI is social construction in action and sits within a constructionist orientation where emphasis is placed on language practices. This means that knowledge, i.e. what we "discover", has less to do with any sense of matching observations with "factual evidence" and has more to do with what questions we ask, how we ask them, and who is involved. AI as an approach is based on strengths rather than weaknesses, on a vision of what is possible rather than an analysis of what is not.

Anchored in AI, appreciative pedagogy trusts in, celebrates, and deliberately seeks out students' experiences of success and moments of high energy and great pride. The practice of appreciative pedagogy is guided by the belief that students come with a rich array of positive experiences in such varied areas as work, organisations, relationships, teams, or leadership.[120] AI is based on the realisation that improvement is more engaging, more fun, and more effective when the focus is on what is already working rather than what is broken. In the process, the teachers become more generous in recognising and appreciating the responses, tacit knowledge and participation level of the students, which further energises and motivates the students to be more engaged in class.

Within the AI framework, APEX students are provided with coaching sessions on higher-order thinking skills by asking what "real life" personal situations they think science and mathematics relate to. Teachers try to get inside the students' heads and see the ideas from their perspective, prior knowledge, career interest and personal experience. Students use inquiry methods to ask questions and investigate a topic, and use a variety of resources to find solutions and answers. As students explore the topic, they draw conclusions, and as the exploration continues, they revisit those conclusions. Exploration of questions leads to more questions.

Applied in the education sector, AI is a cooperative search for the best in children, their school, their teachers, their classmates, and their parents; these discoveries influence and help shape the students' image of the future. It all begins with a story that the appreciative inquirer tells about themselves, about where the student has experienced the best of what he could e.g. in reading, writing, passing tests and exams. With this flow of energy from experience, the child is poised for a similar experience in the future, thus nurturing everything that gives energy and brings joy of performance, acceptance and readiness to move ahead.

120. L. Yballe and D. O'Connor, 'Appreciative Pedagogy: Constructing Positive Models for Learning', *Journal of Management Education,* vol. 24 no. 4, August 2000, Le Moyne College, p. 477.

In addition to AI, the APEX system puts a premium on contextualisation. In APEX schools, the academic teaching and learning utilises the workplace, entrepreneurship and the community at large as learning contexts that enrich students' learning and development and ingrain in them a sense of civic responsibility early on in life. It uses the innovative and active learning methods referred to as contextual teaching and learning (CTL):

> Contextualisation of teaching and learning is a conception of teaching and learning that helps teachers relate subject matter content to real world situations; and motivates learners to make connections between knowledge and its applications to their lives as family members, citizens, and workers and engage in the hard work that learning requires.[121]

Using the CTL approach, APEX schools adopt the regular high school curriculum in Science, Mathematics and Technology Livelihood Education (TLE), however, the basic education curriculum was contextualised by aligning the learning content, materials and teaching strategies to the context of learners and the development goals of the community. APEX courses are tailored to the job skills requirement of employers for workforce hiring. For instance, the specialisations in TLE subjects were designed based on consultations with business and industries in the three project sites, namely Laguna, Cebu and Leyte, to identify the jobs where high school graduates could be gainfully employed and the corresponding entry-level qualifications.

Using the appreciative lens, APEX schools bring about social change in the learner and the school community, as the emphasis is on the positives, and the belief that people build on what they appreciate rather than what they are not happy about. The APEX system of education based on AI principles enables a learner to discover, through their own story, what is good about themselves, and subsequently dream of how they can capitalise on this story of goodness to do more of the things that they appreciate about themselves, their environment, and their world.

APEX schools adopt an integrated approach to help students make meaningful connections between the areas of studied content in relation to everyday life. Utilising the workplace, entrepreneurship, and the community as learning contexts further enriches students' learning and holistic development. Particularly effective are the frequent opportunities that students are given to discuss their assigned tasks in groups. Teachers never run out of approaches to maintain students' interest and active engagement in the learning process. These include use of questioning techniques, hands-on activities, investigatory

121. R.G. Berns and P.M. Erickson, 'Contextual Teaching and Learning: Preparing Students for the New Economy', *The Highlight Zone: Research Work No. 5.,* National Dissemination Center for Career and Technical Education, Columbus, Ohio, 2001, pp. 2–9.

projects, project-based learning, real-world simulation such as market encounters, game-based learning, social constructivism, ICT integration and other innovative and creative teaching strategies.

In APEX classrooms, collaborative learning is greatly valued and drawn from the social constructivist practice of emphasising the process of peer interaction that is mediated and structured by the teacher. Discussions centre around specific concepts, problems or scenarios, guided by means of effectively directed questions, the introduction and clarification of concepts and information, and references to previously learned material. The role of students and the expectation within a contextual learning environment is that the students play a more active role in and accept more responsibility for their own learning.

In APEX schools, authentic assessment tools were developed to measure the progress of students' abilities in real-world contexts. The assessment focuses on students' ability to integrate, extend and apply what they learn in different contexts (i.e., home, community, public and private sectors). This also includes critical and creative thinking and analytical skills, the ability to work collaboratively, written and oral expression, and progressive life skills. Authentic assessment highlights the learning process as well as the final output from the students either individually or in groups (i.e., portfolio assessment). The APEX teachers value students' feedback as part of the overall learning process. Also aligned with constructivist pedagogy is the act of giving students appreciative feedback, which allows students to reflect on their learning, clarified areas where they can improve, and provided them the opportunity to self-assess their skills and capabilities. Teachers also encourage peer feedback, especially when the students work in groups. Types of assessment used in APEX include reflective journals/portfolios, case studies, integrative and simulation sessions, group-based projects, presentations (verbal or poster), debates, role play and other progressive assessment tools.

There are also various learning facilities that are localised and made available for students' use for the application of real-world skills. These include workshop facilities in schools and industries that are designed for students' hands-on activities, off-campus activities, work-based learning, market encounters, investigative/research projects, work immersion or apprenticeship. School partners and stakeholders usually provide support in building the employability skills of high school students by providing the school community with resources to set up a TLE laboratory, computer facilities, workshop materials for electronics, welding, carpentry and other technical courses to be offered.

Aside from academic preparation, a twin component of the project is the establishment of the APEX career preparation programme, which helps students connect high school education to college/higher education and/or employment through the integration of

technical skills (practical work-based learning), employability skills (soft learning), and/or entrepreneurial skills development. To ensure that students are academically prepared and ready for work after high school, they are exposed to various programmes on technical and entrepreneurial skills development where they can apply science, mathematics and communication skills and build their self-confidence in the process. They undergo an exploration process designed to discover the career interests, skills and values they have that may be in line with technical or enterprise development. They also undergo a translation process or stage where all the learning competences that the students need in their chosen career are acquired and developed through a sequential course of study designed by the school community.

Gleaning from the overall experience of Project APEX, contextualisation was evident in the areas of curriculum, learning materials, pedagogy, assessment, learning environment, teacher preparation and school management.

The core factor to the success and sustainability of APEX schools rests on strong relationships between and amongst schools, families, communities, local government, industry, community-based training service providers and other stakeholders. Critical and long-lasting partnerships foster mechanisms for knowledge sharing and collaboration across schools and project sites, facilitating quality assurance and scale-up.

Beyond the creation of enterprising schools and communities, an APEX school elevates the participation of learners from passive receivers of knowledge to active and engaged lifelong learners. It cultivates inclusive thinking, synergy in honouring diversity in schools and communities, connectedness, cultural sensitivity and systems thinking. It elucidates the natural alignment of contextuality and appreciative thinking with a school culture that values storytelling and reflective listening. Over the years, the project has evolved into a people-led transformative process, making it a model of contextuality in practice for inclusive, equitable, quality learning, particularly in the least developed school communities.

As we enter the 4th Industrial Revolution, which is fundamentally altering how we live and work, our education system must instigate a paradigm shift that gives birth to more schools that are able to understand and respond to the emerging needs and realities of communities. The APEX model has demonstrated how schools and their local communities can effectively work together in contextualising learning to better prepare students to become productive and engaged citizens of their country. It especially holds a lot of promise and potential when scaled up, leveraging the power of technology and the collective resources and energy of schools and communities. At the helm of this sustainability efforts are school leaders, in partnership with local government officials, private institutions and students themselves. When young people are given access and opportunities to

education solutions that work, they can flexibly adapt to the changes in their wider environment and participate in shaping a better, shared future for all – they can become protagonists of their own education and, consequently, their communities. ■

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Socio-Cultural Diversity and Contextuality: A view from the Global North

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Introduction

Just as the need for Balanced and Inclusive Education grows around the world, and as educational reform becomes a prerogative of governments in the Global South, the Global North is undergoing a period of reckoning with the increasing diversity of its population in terms of ethnic, racial, religious, language and legal-status characteristics.[122] The recent period marks a paradigm shift towards a more direct approach for dealing with increasing population heterogeneity and towards an understanding that context matters. Contextuality in educational reform has meant paying tribute to the values, skills and interpretive frameworks that the learner carries from outside the classroom, whilst simultaneously embedding them into the educational process. A second aspect of contextuality in education relates to the integration of local elements of the learner's (ethnic, cultural, religious) background into curricula and teaching methods. The present essay is a brief overview of the concepts, issues and practices that have appeared in debates about the fourth pillar of Balanced and Inclusive Education as defined and conceived by the Education Relief Foundation, Contextuality, in countries of the Global North, as the latter adapt (or fail to adapt) curricula and pedagogical practices to the phenomenon of increasing diversity, and attempt to tackle the related issues. It also provides tentative guidelines based on recent attempts towards more inclusiveness in education.

For decades, the "contact hypothesis"[123] offered the conventional wisdom behind educational reform. It underpinned a *laissez-faire* attitude towards education in contexts of high diversity. During the formative years of one's life, according to this theory, contact

122. S. Vertovec, 'Super-diversity and its Implications', *Ethnic and Racial Studies,* vol. 30, no. 6, 2007, pp. 1024–1054.

123. G.W. Allport, *The Nature of Prejudice,* Reading, MA, Addison-Wesley, 1954.

with members of different groups is indeed to take place in schools. The preconditions for improving relations amongst groups through the structured contact of the classroom experience are manifold: constructive cooperation should take place on an equal basis in order to achieve common goals, whilst being aided by the teaching staff in a non-prejudicial way. Schools should practise equality and meritocracy, and inclusiveness shall happen automatically. However, contact theory suffers from a deficit of knowledge about the context in which equality, prejudice and common goals are defined. It often privileges the context of mainstream, "native" students and teachers, and silences those of students of diverse backgrounds.

A number of issues related to the revision of a simplified contact theory of education have been identified in recent years: a) the disparity of experiences between educators (overwhelmingly of a certain ethnic, socio-economic and linguistic background) and students; b) the need for educators to acquire the knowledge and skills to deal with the diversity of the student body; c) the need to institutionalise a mechanism through which students of diverse backgrounds (and their parents) provide feedback about and update the educational experience; d) the challenge to align the expectations of "native" students with those of a diverse background; e) the balance between particular, contextualised skills and homogenising educational frameworks, as local and regional economies explore niches and as global economic chains multiply and diversify.[124]

We conclude that the aim of contextuality, the conceptual anchor of this essay, should be three-fold. First, contextuality should counter disadvantages that burden students of diverse backgrounds gradually and indirectly, because these students lack the cultural capital, in the sense developed by Bourdieu, which transforms educational success into higher societal status. The empirical reality remains that, very often, the longer a child from a diverse religious, linguistic or other ethnic background remains in school, the more likely they are to drop out, face disciplinary action or perform poorly in standardised exams compared to their peers. The second goal of contextuality should be to provide direct recognition and celebration of diverse backgrounds. Thus, even when a student performs exceptionally in standardised exams, they should feel that the curricula and school practices take into account the particular circumstances of their community. Third, respecting the context of each student's upbringing should lead to a pedagogical synthesis and not to a hardening of differences. Acquiring the skills to recognise the intricacies of context and to practice inclusiveness should be a goal of educational reform, because it is extremely valuable in an interconnected, globalised, complex world. In fact, the ability

124. J.A. Banks and C. A. McGee Banks, eds. *Multicultural Education: Issues and Perspectives*, John Wiley & Sons, 2010, pp. 2–23.

to deal with diversity has been empirically linked with improved productivity and higher levels of innovation.[125]

Recognising the importance of context in education reform

There is no shortage of proposed reforms when it comes to creating an inclusive education, or heightening sensitivity to contextuality. One candidate is to have elective courses on the history and cultural achievements of specific, hitherto disadvantaged groups. A second suggestion is to reform curricula more thoroughly, for instance by designing compulsory history and literature courses that reflect the diversity of experiences and highlight the achievements of specific groups. A third is to hire, in a formal or informal fashion, more teachers and administrators of diverse backgrounds to accommodate the needs of a diverse student body. Having such persons in positions of authority would provide positive role models and they would be better placed to recognise the potential of students who otherwise lack the requisite cultural capital. Such practices have been tested with some success in the United States, Canada, Australia and the Netherlands, following the advocacy of African-American, Indigenous, migrant and feminist groups. Other countries in the Global North, for instance many in continental Europe, have been slower at adopting similar reforms, perhaps reflecting the less successful struggles of minorities for recognition in said countries.

Even if such types of educational reform are laudable, they have limitations. Firstly, they often recognise the importance of contextuality for a single, historically disadvantaged group, but not others, let alone the personalised needs of individual students. Secondly, and as importantly, they lack an updating procedure for identifying *which* contextuality is important, as the demographics of diversity in the student body change. Third, with the exception of hiring and training teachers of a diverse background, such measures often lack refinement. They do not devote as much attention to pedagogical and testing practices that might disadvantage students who do not possess, as already noted, the requisite cultural capital. For instance, certain linguistic practices in essay writing, presentational styles or forms of individual evaluation might disadvantage students who grow up in certain family or community environments that favour different skill sets.

In response to these limitations, national and local education boards should periodically update curricula and hiring practices to avoid ossification around only a few privileged groups who have achieved recognition of the idea that their context matters. Schools

125. S.E. Page, *The Diversity Bonus: How Great Teams Pay Off in the Knowledge Economy*, Vol. 2, Princeton University Press, 2017.

would need to be aware that rewards and distinctions should not result in labelling whole groups as under-achieving – indeed, school administrations should be encouraged to recognise achievement in a variety of fields and thereby "contextualise" rewards. Teachers should, naturally, be made aware of the fluidity of the context in which they teach, which is also reflected in the student body. Therefore, they should be trained and prepared to apply different teaching methods, emphasising a broader set of skills. For instance, some teaching sessions may focus on abstract ideas whilst others may favour example-based knowledge; some would emphasise group work, whilst others would encourage individual presentations. As intersectionality theory reminds us,[126] there are numerous dimensions that coexist, interact and have an impact on the experience of each individual student (gender, ethnicity, religion, class, etc.). This pluralism should not prevent reformers from pursuing an inclusive, contextualised education that "casts a wide net" of pedagogical methods and evaluation practices.

Another useful analytical principle to guide educators as they consider the importance of contextuality is that of the cultural frames towards schooling that different minorities might harbour. As Ogbu noted long ago,[127] some students of minority backgrounds might view institutionalised schooling in negative terms because they come from "involuntary" minorities (descendants of slaves, the colonised, those defeated in wars, and the politically persecuted), as opposed to "voluntary" minorities whose descendants arrived in the host country to achieve a better life. For such "involuntary" minorities, the curriculum and teachers themselves should recognise past wrongs and simultaneously offer positive framings towards schooling. The purpose here is not the expression of perpetual *meae máximae culpae* but, rather, for these "involuntary" minorities to recognise themselves in their education, and feel that they are an integral part of their societies, not an afterthought.

Last but not least, a balanced and inclusive education sensitive to the context of the student's background and upbringing should not be limited to formal schooling. The model of the hierarchical, age-delimited, geographically and thematically fixed school, as conceived for industrial modernity, is currently complemented by vocational (re-)training, lifelong learning and e-learning. These new educational forms complement other learning environments, such as camps, religious instruction classes and after-class programmes. In a sense, the variety of modalities of learning can be conducive to a more balanced and inclusive education, as students and families of diverse backgrounds enjoy a broader educational choice. At the same time, a teacher at a vocational training school should strive

126. D. Gillborn, 'Intersectionality, Critical Race Theory, and the Primacy of Racism: Race, Class, Gender, and Disability in Education', *Qualitative Inquiry,* vol. 21, no. 3, 2015, pp. 277–287.

127. J.U. Ogbu, *Minority Education and Caste: The American System in Cross-Cultural Perspective,* New York, Academic Press, 1978.

for the same attention to context and alertness against prejudice as their counterpart in a regular school.

Curriculum Reform

A curriculum reform that grants adequate attention to contextuality shall, it goes without saying, carefully revise subjects such as history or literature. It is there that the silences regarding the achievements of people of diverse backgrounds are the most deafening – for instance, imagine teaching the history of European explorations and colonialism without paying any attention to the perspectives of those who were subjugated, all the more so when younger students are more likely to be the offspring of said colonised communities. Revising textbook material is of course not the only remedy. Foreign language acquisition, exchange programmes and field trips to places of memory for people of non-mainstream ethnic, religious and linguistic backgrounds are likely to enhance the effectiveness of an inclusive, contextualised education.

It is important to note that curriculum reform should go beyond a superficial treatment of the struggles of previously marginalised groups, such as including token references to important personalities and events of the history and cultural achievements of these groups. These mere "additions"[128] to the curricula, as James Banks calls them, do little to reveal the institutional and structural obstacles faced by hitherto marginalised populations. In reality, such limited reforms continue to reflect the point of view of the mainstream group, whilst paying lip service to the need for more inclusiveness. Instead, the overall principle when teaching the social sciences and humanities in contextualised curricula should be to offer multiple, sometimes hidden, perspectives of the studied social phenomenon. Ideally, schools should strive for a more active engagement of students with the outside community and cooperation with institutions and civil society groups; in other words, there should be "apprenticeships of contextuality" that would transform students into active agents of change.

Teachers are often reluctant to apply understandings of contentious social phenomena that respect contextuality, for a number of reasons: because of their own ideological inclinations; because including multiple perspectives is hard work; and because such an approach can be confrontational and challenged by students of the majority/mainstream. However, contextuality requires a familiarity with complexity in social processes, just as students are taught about different ways of tackling a problem in algebra or geometry. Contextuality is beneficial not only for students of diverse backgrounds who get a taste

128. J.A. Banks and C. A. McGee Banks, eds. *Multicultural Education: Issues and Perspectives,* John Wiley & Sons, 2010, p. 239.

of empowerment through education, but also for majority students who acquire a more holistic understanding of diverse groups' contributions to the national culture.

Although at first sight contextuality does not seem to apply to mathematics and the sciences, or more broadly to teaching the scientific method, such subjects are not exempt from a number of interventions in the spirit of what has been described thus far. For example, the advance of science as a series of discoveries by Western European white men, which is often implicit in the teaching of mathematics, physics, chemistry or biology, obfuscates the contributions of, to give just two examples, North-African scholars in the Middle Ages and contemporary Asian scientists and mathematicians. Scholars have also dissected the contextual prejudices implicit in standardised tests, such as the IQ test or the SAT tests for admission to American universities.[129]

Lessons from existing policy reforms

As already noted, educational reform that strives for more inclusiveness is difficult, costly in resources and time and, perhaps most importantly, it sits uncomfortably with dominant national paradigms about mainstream culture. In Europe, one way of bypassing this last obstacle has been to stress the importance of pan-European values of diversity through an "intercultural education". This approach, disseminated through EU directives and Council of Europe guidelines, has had mixed success because of the persistence of strong national traditions, such as the assimilationist model in France and the more ethnocentric approaches in Germany. The model has also been criticised as a kind of token multiculturalism that emphasises "couscous pedagogy".[130] Still, its accomplishments in countries without the multicultural experience of the United States, Canada or Australia should not be underestimated. Valuing multilingualism, emphasising hybridity/*métissage* and cultivating a more inclusive transnational identity are lessons to draw from the European Union approach that are of broader geographic importance. It is worthy to note, however, that criticism levelled at "intercultural education" is not wholly unfounded as it may fall into the danger of tokenism. An effective means of preventing this distortion of "intercultural education" is the adoption of *intraculturalism*, the first pillar of Balanced and Inclusive Education, as a method, as discussed earlier in this volume.

In the United States, educational reforms following the civil rights movement were directly linked with calls for social justice and for the reversal of structural power dynamics.

129. S.J. Gould, *The Mismeasure of Man*, WW Norton & Company, 1996.

130. M. Tarozzi, 'Intercultural or Multicultural Education in Europe and in the United States' in Chiesa, B.D., Scott, J. and Hinton, C. (eds.), *Languages in a Global World: Learning for Better Cultural Understanding*. OECD Publishing, 2012, p. 400.

Reformers introduced radical solutions to school curricula and education policy even beyond what has been described so far; they instituted school desegregation, affirmative policy and the proliferation of university programmes in African-American and Latino studies, amongst other things. Such innovations are largely missing from the approaches endorsed by European countries. One lesson to be drawn from the US experience is that successful educational reform and change that is not merely cosmetic have their origin in a politicised and not a technocratic process. At the same time, the US case also provides a cautionary tale about hardening group categories. Indeed, the ossification of policy targets according to the major racial and ethnic census specifications might not provide the ideal institutional approach to contextuality in education, because it makes a pedagogical synthesis more difficult and because it undermines a more tailored approach to students of highly diverse backgrounds.

Canada seems to have taken a middle road between European interculturalism and US group-based multiculturalism. Historically, emphasis was given to language rights of the French-speaking parts of the country and, more recently, of Indigenous minorities. These policies offered important lessons for respecting inclusiveness and contextuality, partly applied to the educational experience of members of more recent, non-European migrant communities. One characteristic of the Canadian model with potentially broader value is the simultaneous testing of multiple approaches towards pedagogy and curriculum development at the school, district and state levels. As there is no overarching dominant authority in the country, states seem to pick and choose solutions according to local needs. This approach means that no specific groups emerge as dominant minorities and that diversity as a value in itself (indeed by now a defining characteristic of Canadian understandings of their nationhood) guides reforms. To be sure, the Canadian example requires a robust federal system and meaningful local autonomy. Further limitations of the Canadian approach include a highly selective migration policy that favours highly-skilled migrants and attenuates inequalities between natives and newly-arrived migrants.

Conclusion

This chapter has provided an overview of the concepts, frameworks and reforms towards achieving more inclusiveness and contextuality in education that have appeared in the Global North in the last few decades. The premise of reform has been that diversity is becoming an important feature of societies in a globalised, interconnected world and that national educational systems should provide the skills to turn diversity into an advantage. The limitations of such reforms have also been identified, indicating that there is a need for a more profound and comprehensive process of contextualisation, such as the one proposed by the Education Relief Foundation in the case of Balanced and Inclusive

Education. Accordingly, attention has been drawn to a number of important analytical distinctions of potential value for educational reformers elsewhere. Changes may be applied to explicit curricula (textbooks, course offerings, language training, field trips and the like) as well as implicit pedagogical practices, such as forms of presentation, assessment and reward structures. Furthermore, reforms may be explicitly group-based, emphasising the inclusion of historically disadvantaged groups, or they can embody a broader intercultural approach towards the diversity of the student body that is more open about group boundaries. Several actors have challenged hitherto dominant national frameworks, from international organisations such as the Council of Europe, to civil society groups such as minority organisations. Yet, in all cases, the involvement of teachers and local administrators increases the likelihood of success by also providing a mechanism for updating information about the changing demographics and contexts, which suggests a possible need for a more decentralised apparatus in certain highly centralised systems.

Interestingly, the accumulated wisdom of a more inclusive education and the need for Balanced and Inclusive Education in the Global North has been thoroughly challenged by the rise of nativist sentiments in Europe and North America in recent years. It thus remains to be seen whether educational reform aiming for more inclusiveness and contextuality has entered a period of retrenchment, rather than further refinement, as this essay has argued is necessary. The Global South can learn from the experiences, advancements and reversals of the last few decades in the Global North. However, as other chapters in this volume argue, and if the trend towards nativism persists, countries in the Global South may soon constitute the *avant-garde* of global, inclusive education. ■

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Contextuality: An overview

On inclusivity, T. Booth and M. Ainscow[131] in 'The Index for Inclusion' state:

> Viewing every life and every death as of equal worth. Supporting everyone to feel that they belong. Increasing participation for children and adults in learning and teaching activities, relationships and communities of local schools. Reducing exclusion, discrimination, barriers to learning and participation. Restructuring cultures, policies and practices to respond to diversity in ways that value everyone equally. Linking education to local and global realities. Learning from the reduction of barriers for some children to benefit improving schools for staff and parents/careers as well as children. Acknowledging the right of children to an education of high quality in their locality. Emphasising the development of school communities and values, as well as achievements. Fostering mutually sustaining relationships between schools and surrounding communities. Recognizing that inclusion in education is one aspect of inclusion in society.[132]

In terms of education, this means that inclusivity can no longer be limited to the achievement of increased or universal access to education. As identified by Ervin F. Sparapani and David M. Callejo Perez in 'A Perspective on the Standardized Curriculum and Its Effect on Teaching and Learning, published' (2015):

> The people of the world live in a complex, multi-faceted society, and that societal complexity brings a variety of learners into the classroom (Daniel, 2007; VanSciver, 2005). The challenge to help all students succeed in such a diverse society is present for teachers every day in every classroom at every educational level. Mastering the art of bringing variety to the curriculum according to the needs of any given set of students is the challenge that such diversity can bring.[133]

Education systems must, therefore, be capable of not only providing access to all members of society, but it must simultaneously include them within the very fabric of the educational process. This is where the importance of contextualisation emerges. As the fourth pillar of Balanced and Inclusive Education, contextuality is the most transversal

131. T. Booth and M. Ainscow, *The Index for Inclusion: Developing Learning and Participation in Schools*, Bristol, Centre for Studies on Inclusive Education, 2002.

132. M. Ainscow et al, 'Developing inclusive education systems: the role of organizational cultures and leadership', *International Journal of Inclusive Education,* Vol 14, Issue 4, 2010.

133. F. Sparapani and D. M. Callejo Perez, 'A Perspective on the Standardized Curriculum and Its Effect on Teaching and Learning', *Journal of Education & Social Policy,* 2015.

and encompassing of the four pillars. In its practice, accordingly, this requires education systems to:

1. Ensure that the educational setting is adequately designed to local realities: The importation of ready-made educational settings and their indiscriminate implementation in tangibly different contexts is deeply detrimental to the efficiency of an education system. In the case of nomadic communities, for instance, the focus should be on articulating a mobile educational setting, rather than constructing state-of-the-art buildings, capable of the delivering the same quality of education;

2. Reflect the community realities, culture, and aspirations in the content: Education must enable both individual learners and entire communities to recognise themselves within their education. This can be noticeably observed in postcolonial societies, where the gap between the formal education setting and the context (culture, community etc.) is particularly pronounced. This gap takes various forms: social representations, stereotypes, exclusion from the educational narrative, disconnect between the skills required by a community and the skills acquired through education, amongst others. A relevant instance is the use of mother tongue. A language is not only a means of communication, it is also the vehicle of ideas, values, and a community's culture. On a social level, an education which does not embed the mother tongue of learners, in effect, severs them from their community and prohibits them from being pro-active agents within a community which they no longer understand. On the level of assessments, the exclusion of mother tongues from education places learners from minority languages into immediate disadvantage as they will simultaneously need to learn new material and a new language. The result is often a process of alienation, disconnecting the learners from their own community or leading them to retreat behind barriers leading to communitarianism;

3. Adapt pedagogical practices to the individuality of the learner: Each learner is, first and foremost, an individual with different experiences and history. Individuals learn in different ways. It is, accordingly, important for pedagogical practices to be tailored to the learner's individual context and realities. In other words, it is the education system that must adapt to the diversity of the student body, and not the student body to sacrifice its diversity in an attempt to adapt to the education system. This diversity is expressed in countless forms – mental and physical abilities, gender,

sexual orientation, language, faith, socio-economic class, and any other relevant aspect of their social and cultural backgrounds.

It is, however, essential to note that, whilst contextuality implies the adaptation of education at all levels (international, regional, national, local, individual), it does not imply the disappearance of international, regional, and national standards and outcomes. It is, rather, precisely in order to better achieve expected common standards and outcomes that an education system's adaptation to the particularities and variables of context finds its veritable relevance. ■

Contextuality	**GUIDING PRINCIPLE** Through rigorous observation, assessment, and dialogic exchange, education is contextualised at all levels (international, regional, national, local, and individual).
	OVERALL GOAL Adapt education at all levels (international, regional, national, local, and individual)

Outcomes	Outputs	Output Achieved	Level of Outcome Alignment			
			Minimal alignment	Partial alignment	High alignment	Full alignment
OUTCOME G Structurally enable and ensure adaptation and tailoring processes	CURRICULUM		Output G.1 achieved	Outputs G.1 and G.2 achieved	Outputs G.1, G.2, and G.5 achieved	All Outputs achieved
	Output G.1: Mechanisms allowing for adaptation to contextual variables are embedded	❑				
	Output G.2: Mechanisms allowing constant revision process at appropriate frequency are embedded	❑				
	Output G.3: Engagement of Civil Society to tailor to social aspirations and requirements	❑				
	Output G.4: Engagement of universities and research institutions to incorporate academic developments	❑				
	PEDAGOGY					
	Output G.5: Mechanisms allowing for tailoring to contextual variables are embedded	❑				

OUTCOME H Adapt to socio-cultural aspects of the context, dismantling processes of alienation and developing a sense of co-ownership in society	**CURRICULUM**		Output H.2 and H.8 achieved	Outputs H.2, H.8, H.1, and H.3 achieved	Outputs H.2, H.8, H.1, H.3, H.6, and H.7 achieved	All Outputs achieved
	Output H.1: Mother tongue education (learning materials and courses) is provided, ensuring fluency	❑				
	Output H.2: Compatibility and relevance to local context and integration of local realities, aspirations, and culture(s)	❑				
	Output H.3: Integration of indigenous, including oral, knowledge	❑				
	Output H.4: Adaptation of ICT to the local context, whenever its introduction is relevant and suitable	❑				
	Output H.5: Introduction of locally-developed and contextually-relevant ICTs, whenever appropriate	❑				
	Output H.6: Coherence between skills required in local context and skills acquired	❑				
	PEDAGOGY					
	Output H.7: Use of familiar situations and life experience, to illustrate and concretise courses	❑				
	Output H.8: Pedagogical practices are adapted to and reflect the physical, social, cultural, and individual circumstances of learners	❑				
	Outputs H.9: Integration of local conceptions of learning and of traditional pedagogical knowledge	❑				

CHAPTER III

Ethics and Balanced and Inclusive Education

Ethics and Balanced and Inclusive Education

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TRANSLATED FROM FRENCH

"Is it necessary for knowledge to be fragmented into a thousand ignorant knowledges?"

– Edgar Morin

1. Introduction: Not all scientists are of the same party

We are living in a paradoxical educational era, where there is a demand for more ethics, but where the latter has been devalued from the outset, as well as the arts, games, celebrations, exchanges, gardening and all these "useless", "unproductive", "recreational", "non-intellectual" feel-good activities of social cohesion. We live in an era in which policymakers in education are dominated by a scientific positivism that proclaims that only science and its experimental and analytical procedures are true, legitimate knowledge; that this science is ethically neutral and that it comprises a neutralisation of value judgements, all of which are subjective and arbitrary; that ethics are therefore relative to the arbitrary positions of individuals clouded by their ethnocentrism, which only science can overcome. This science, which transcends ethical prejudices, is organised into specialised disciplines that must isolate their object of study in order to achieve the objectivity and rigour that scientific knowledge requires. As they progress, these disciplines become hyper-specialised and move further and further away from the holistic discourse regarding the whole, the world, the undefined, discourses abandoned to the non-specialist bystander and to "coffee shop philosophy".

This positivised, specialised and "scientistic" science also shapes decision-making, and thus the school institution. It manages education, it structures universities, research and the publishing of research. It produces an imbalanced education, where the "hard" sciences

are in the spotlight compared to the "soft" disciplines. This education is exclusive, causes considerable of marginalisation and is justified by the meritocracy of those who succeed in rising to the top of scientific specialisation in prestigious universities. This scientific education (still) tolerates democracy outside of it, as it organises the "ignorant ones" in the Plato's cave that we call society, but it is itself the source of an aristocracy of learned technocrats who are legitimately called upon to use science to govern the society of those who do not have this knowledge. The unanimous truth of technocrats is that science, education, economics, and politics are the domain of specialists, and that therefore the meritocracy of the upper echelons of academic knowledge must decide who must govern and how to impose the "rational" thought that sets the standards and rules.

The resulting education system does not like transdisciplinarity, which it deems impossible, infertile and undesirable. It underestimates the contextualisation of education, which it considers incompatible with researching the universal, unsuitable for international measurements and rankings and a concession to irrational relativism, or worse, to dangerous communitarianism. This dominant education refuses dialecticism and intraculturalism, since Science is by definition supra-cultural, global and supranational, and has no interest in dialogue and exchange with those who, having not had access to the source of knowledge of which it is the custodian, do not have the means to participate seriously in debates at the highest level. Young people will be taught Science with a capital 'S', and those who are able will finally be introduced to the anglophone "jet set" of *the* scientific and technocratic community. The others will, if all goes well, be the employees of the system.

We therefore seek to highlight, at the heart of the lack of balance and inclusion in our education systems, a particular scientistic and positivist ideology as the root of the educational problem overall. And it is this ideology that must first be uprooted and brought to light if we want to give ourselves the opportunity to rethink and reorient education in a different direction.

Firstly, this positivist and scientistic science is not the only one possible. There are also scientists who advocate the need for a dialogue of knowledge between scientists and non-scientists, who proclaim the humility of scientific knowledge, who understand the world as more complex than a simplistic science, and who see ethics at the heart of science and not at its margins. These non-positivist and non-scientistic scientists defend democracy at the heart of science, they create the possibility of a democratic debate between scientists at the heart of science, they deny unanimity and the pure objectivity of positivism, and they confront their colleagues. They would like education and specialisations to be organised in a way that is more open to society, more dialogue-oriented and more responsible. The study of the four pillars of Balanced and Inclusive Education, as elaborated in the previous chapters, is a good way to examine this dissensus amongst scientific

communities. Science is not, and has never been, monological. Simply highlighting this can already make it feasible to restore a plurality of freedoms to potential educational formats.

2. Transdisciplinarity: a means of redefining inclusion through Balanced and Inclusive Education

The idea of transdisciplinarity, the second pillar of Balanced and Inclusive Education, means above all to go beyond mere disciplines, not only to bring disciplines into dialogue with each other (interdisciplinarity) but to make the disciplines dialogue with other non-disciplinary forms of knowledge and discourse, which are conceptualised and implemented far from the disciplinary education system.[134] In short, transdisciplinarity means above all an opening of science and education to others, to those who are not in a discipline, to those whose knowledge and skills have not been previously assimilated and validated by the education system or the scientific and professional community.

To make the most of such an openness to others in the education system which, like all expert systems, is inclined to self-replicate,[135] one must have a love of getting out of oneself and establish links with the foreign, with the strange. Yet, if this love of openness, this desire for ties with what is foreign, comes naturally to everyone, we should not expect it to survive an educational system that is as ethnocentric as it is doctrinal. It therefore becomes necessary to structurally open up the system itself. The fundamental elements of this process of openness are found in intraculturalism, that is, not to forget oneself in the learning process, to examine oneself, to introspect culturally in order to understand the Other, and vice-versa. These elements are also found in dialecticism, i.e. simultaneously interacting, thinking with others and engaging in critical dialogue with them and with oneself. Through intraculturalism, the system now recognises the ethics of connecting with the Other, which revalues itself in equal measure, as one of its internal educational needs. Contextuality, on the other hand, allows us to say that a real education through the system must be based on a relationship with the territory and its issues, challenges, its urgent needs and promises. In the few instances where it exists today, this relationship with the Other, with other people and with the territory is normally reflected in the idea of developing relationships between the school (or university) and society, the need to put learners in a position to solve social problems (learning based on social problems, service

134. H. Nowotny, P. Scott, & M. Gibbons, *Re-thinking Science. Knowledge and the Public in an Age of Uncertainty,* Cambridge, Polity Press, 2001.

135. A. Giddens, *Les conséquences de la modernité,* Paris, L'Harmattan, 1994; N. Luhmann, *Systèmes sociaux. Esquisse d'une théorie générale,* Quebec, Presses de l'Université Laval, 2011, and P. Bourdieu, and J.C. Passeron, Paris, Les éditions de Minuit, 2005 (first edition: 1970).

learning) and to open the school up to life, i.e. to recognise and integrate the context experienced by the learner, a contextualisation of the educational process itself. This has a dual educational value of solidarity (helping others educates) and diversity (opening up to others educates).

This provides an easily identifiable link between, on the one hand, the demand for recognition of plurality (intraculturalism) and openness to dialogue (dialecticism) within the educational system, in addition to the production of scientific knowledge, and, on the other hand, the ethical requirement of the system's social responsibility, its ability to open itself to social problems and to be a part of their solution. The relationship between university social responsibility (USR) and social project-based learning has been strongly emphasised by the Latin American stream of USR since the 2000s.[136] First, however, social problems are never strictly disciplinary – they require a complex approach that combines multiple disciplines: interdisciplinarity. And secondly, their solution requires the active participation of populations, and therefore **mutual learning communities** where disciplinary specialists must dialogue and deal with non-disciplinary parties: transdisciplinarity. Social solidarity thus requires the solidarity of knowledge, beyond compartmentalised disciplines and institutional silos. Such a shared learning process will by definition be balanced and inclusive; it will take science out of the laboratory.

There is, therefore, a certain ethical dimension (and pragmatic efficiency) to demand transdisciplinarity in the sciences, universities and schools if we want to open the education system towards solidarity with society. But the idea of Balanced and Inclusive Education, by introducing and linking the concepts of intraculturalism, dialecticism and contextuality, goes further and redefines the need for transdisciplinarity in an entirely novel way. We no longer need transdisciplinarity to be useful to society; we need it to be useful to education. At its core, the requirement of a balanced and inclusive education contains a critique of the disciplinarity at play in the educational as well as the cognitive system, as a de-educating ideology, producing educational poverty rather than excellence. This criticism quickly and inevitably extends, moreover, to criticism of the ethnocentric cultural crumbling, the blind industrialised actions and deaf doctrinal monologues that still perpetuate unsustainable economic and political patterns that are far removed from the ecological shift required by humanity. The link between the obsolescence of the economic system and an imbalanced and exclusive education can show how a balanced and inclusive education could restore educational, ethical, scientific and political dignity to a

136. M. Martínez, *Aprendizaje servicio y responsabilidad social de las universidades,* Barcelona, Ediciones Octaedro, 2008, and F, Vallaeys, et al., *Responsabilidad social universitaria. Manual de primeros pasos,* Mexico, McGraw-Hill Interamericana ediciones, 2009.

system of building and transmitting knowledge that is more concerned with humanity. Let's explore this further.

3. Against a mutilated and mutilating education

Balanced education above all means a plural education, which takes into account the learners and their knowledge in their entirety, their territories and their histories, and which invites all aspects of humanity to contribute to the development of persons: manual, intellectual, physical, spiritual, technical, aesthetic, festive, scientific, ethical, and political aspects…. Balanced education refuses to reduce the pedagogical gesture to a moulding of individuals to conform them to a universal model predefined by the State or the market, under the guise of egalitarianism and the optimisation of the skills necessary for employability.

Since any affirmation is a negation of what it does not affirm, balanced education takes care not to denigrate certain aspects of humanity by excluding them from the programme. It provides a learning framework that recognises the diversities and plurality of humans – be it in cultures, contexts, or disciplines – whilst at the same time allowing individuals and groups to forge an identity in the acknowledgement of their individuality, and not in the forced adaptation to an allegedly egalitarian standard but, in effect, uniformising. And it is in this sense that balanced education exposes the reductive sclerosis of "disciplinarity", which is not a criticism of specialisation, but of the dogmatism of the exclusive valorisation of a particular intelligence at the expense of all other possible forms of intelligence, a dogmatism that always leads to the "blind intelligence" (a specialist who is very intelligent in a tiny dimension of reality, totally blind to everything else, and without awareness of this blindness) denounced by Morin:

> We have acquired incredible knowledge about the world […] and yet, everywhere, error, ignorance, blindness are progressing at the same time as our knowledge […]. These errors, ignorances, blindness, perils have a common trait that results from a crippling form of knowledge organisation, which is unable to recognise and grasp the complexity of reality.[137]

This crippling form of knowledge organisation is monodisciplinary hyper-specialisation, which encloses each researcher-teacher in his knowledge, an illegitimate imprisonment with disastrous social consequences that constitute the social irresponsibility of the science and education that promotes it. The exclusive valorisation of certain disciplines and epistemologies by the school and university system, to the detriment of all others, creates

137. E. Morin, *Introduction à la pensée complexe,* Paris, Le Seuil, 2005, pp. 15-16.

this educational imbalance that underlies the requirement of a balanced education, and which is the hidden root of ethnocentrist discourse. Why should it also demand inclusion? Because it is this overcoming of an imbalanced education through a crippling perspective on reality and pedagogy that will enable education to be truly inclusive, that is, not to serve only the "star pupil" of the dominant classes and cultures, but also that other student who comes from a distant region, with a disregarded history, and languages forgotten by Western, urban, English-speaking and technological globalisation. For if it is a question of advocating inclusion in a school system that is designed as a mould, according to an exclusive socio-cognitive-cultural blueprint, then we will have done nothing more than demagogy; we will have failed once again to make education fair, by not guarding against the system of exclusion that a certain reductionist disciplinary organisation of knowledge will have achieved. Let us not forget that schools have been denounced not only as an institution that reproduces social inequalities[138] but also as an **ethnocidal** institution,[139] an institution that surreptitiously imposes discrimination and disgust of unofficial cultures, even to the point of destroying them to impose a civilisation that corresponds to their cognitive preference.

The socially, culturally and economically marginalised learner will also need these four pillars of Balanced and Inclusive Education in the pursuit of their individual academic development, as the obstacles to their personal development are not reducible to cognitive shortcomings in relation to the curriculum and the need for additional hours of tuition. Their failure is often predicted at the beginning of their individual curriculum, from the blind pedagogical intelligence that has always dismissed the knowledge and skills of these cultural backgrounds from the systems of knowledge validation. The marginal educator will undoubtedly understand why Balanced and Inclusive Education is based as much on transdisciplinarity and dialecticism as on intraculturalism and contextuality, and should, therefore, apply them as an asceticism in their day-to-day teaching. Alas, it is indeed all education that must be re-examined if it is to be inclusive. It would have been more convenient if it were just a theme to be added. But imbalance and exclusion are at the heart of the current process of developing and transmitting knowledge validated by the school and scientific system.

The need for Balanced and Inclusive Education is therefore above all an ethical and political requirement for the restructuring of the educational system. It is hindered, moreover, as a result of epistemological boundaries built on the rationale of performance, technocracy and meritocracy, which structure the reasoning of the school system. This is itself based on a specialised and elitist view of science driven by a monodisciplinary methodology

138. Bourdieu, and Passeron, *La reproduction, Eléments pour une théorie du système d'enseignement,* 2005.

139. R. Jaulin, *La décivilisation: Politique et pratique de l'ethnocide,* Brussels, Ed. Complexe, 1974.

of research that inevitably leads to the exclusion of non-specialists, the delegitimisation of non-academic forms of knowledge, the difficulty (even impossibility) of dialogue between the forms of knowledge, and expertocracy. Of course, we will embrace inter- and trans-culturalism in small areas, and we will emphasise the importance of soft skills development in primary and secondary schools. But the higher we rise in the hierarchy of the educational system, the more specialisation, and thus the exclusion from and monology of expert disciplines practised amongst peers, as well as the monopoly held by the rather ethnocentric technocratic discourse, and thus the exclusion of the Other as well as the dialogue with him, will prevail, to the benefit of the "expert" methods of governance.

It must be said that this expert educational system has not kept its democratic promise of inclusion and equality. And the scientific system to which it leads via progressive sifting of the intellectual elites has also failed to deliver on its promise to solve the essential human problems of hunger, equity, justice, welfare, peace and the sustainability of modes of production and consumption. The human and mammalian habitat of the planet is perishing,[140] and the disciplinarianised sciences are used as much to destroy the world and widen the gap between rich and poor as they are to address human needs.[141] They readily serve the interests of the large corporations who can pay them, constantly belittle ethical and philosophical ideals as unscientific (i.e. untrue, unverifiable, invalid, dubious, etc.) and seem irremediably governed by the "blind intelligence" that Edgar Morin has long denounced. Is there an intrinsic correlation between monodisciplinarity, voluntary blindness to diversity and plurality of contexts, and the lack of attention that the hypermodern knowledge-based society gives to human and world problems?

We would like to put forward the hypothesis of an affirmative answer to this question and stress that the ethics that are currently dominant also fall victim to this conjuncture. Yet, Balanced and Inclusive Education cannot exist without ethics – it then itself becomes a victim not only of limited knowledge, but also of limited ethics.

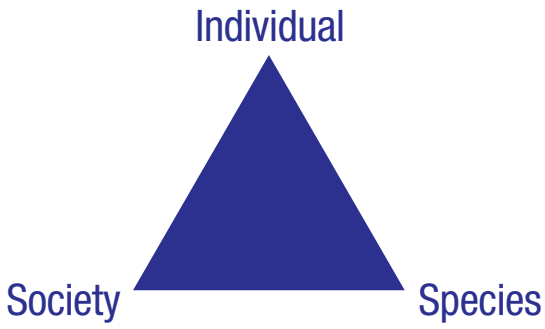
4. Balanced and Inclusive Education: The problem of individualised ethics and their overshadowing of three-dimensional ethics

Two things should be of greater concern to us at a time of global unsustainability: **the mediocrity of our disciplinarised thinking and the blindness of our individualised**

140. W. Ripple et al., 'World Scientists' Warning to Humanity: A Second Notice', *BioScience,* vol. 12, no. 67, 2017, pp.1026 – 1028.

141. I. Stengers, *Sciences et pouvoirs,* Paris, La Découverte, 2002.

ethics. The two problems go hand in hand, because it is via the fragmentation of knowledge and via uncertainty that this narrow ethic is produced in an overwhelmed individual, doomed in advance to see his "moral duties" derisively reduced to a form of self-monitoring that is incapable of attaining the great aspirations of peace, justice, and sustainability, of which he is nonetheless constantly told to achieve in the name of ethics. As Edgar Morin perceived very early on, for ethical concern to have meaning, it would be essential to consider man as "a trinitarian polysystem":[142]



However, this is prohibited by monodisciplinary science as taught and replicated at universities like the "School of Mourning",[143] where the young researcher is convinced very early on that the great fundamental questions of humanity, being general, are not susceptible to science; and that science, to truly be science and not philosophy, must be irreversibly specialised, give up overall knowledge, and entrench itself in distinct and compartmentalised disciplines: psychology, sociology, natural sciences, cultural sciences, etc. A whole set of distinct disciplines is available to the student who, once he has become a researcher, will be allowed to own a single piece of the puzzle, without any individual being able to reconstruct the entire puzzle, except through philosophical or religious ideas that are a priori discredited. The ethicist will not escape the task of this attempt to disperse knowledge and will be given the fragment: "individual norms of behaviour", by definition far removed from political, economic and social sciences, too collective for ethical individuality.

We know what led Edgar Morin to undertake the impossible task of overcoming the epistemological wall of monodisciplinarity through complex thought:

> Man is fragmenting […]. Like man, the world is broken up into sciences, fragmented between disciplines, shattered into pieces of information. Today, we cannot escape the question: must the essential analytical decomposition be paid for by the decomposition of beings and things in a generalised atomisation? Should the essential isolation of objects be paid for by the disjunction

142. E. Morin, *La Méthode. Tome 1, La nature de la nature,* Paris, Le Seuil, 1977, p. 140.

143. E. Morin, *La Méthode,* 1977, p. 12.

> and incommunicability between what is separated? Should functional specialisation be paid for by an absurd fragmentation? Is it necessary for knowledge to be fragmented into a thousand ignorant knowledges?[144]

It is essential, if we wish to reshape education to meet the ethical challenges we face in an era of socially and ecologically unsustainable globalisation, not to abandon **intelligent specialisation**, that is, a **disciplinary approach oriented by transdisciplinarity**. Moreover, to truly flourish, this process must inevitably be pedagogically linked to intracultural, dialectical, and contextual aspects. We will, therefore, begin by applying this approach to ethics itself, before addressing the general problem of these four pillars as a value system for Balanced and Inclusive Education.

What is the ethical consequence of this fragmentation of knowledge and people? As Fernando Pessoa said, "We are the avatars of the stupidity of the past".[145] Our conception of ethics does not escape this inherited foolishness. Focused almost exclusively on the individual and their behaviour with those immediately around them; overly psychologised to examine and normalise a person's "character" without ever altering the system; time and again used in a Manichean form as an excuse for justifying witch hunts, for the reactionary refusals of any social innovation or for conservative judgements allergic to any refined understanding of weaknesses in the name of intangible and pure principles; many abominations were committed and are being committed in the name of ethics. Once mainly of a religious nature, today's abominations seem to be oriented in developed countries towards a neoliberal rationality that postulates an "independent self" in every individual, a calculating homo economicus, who has mastery and individual responsibility for his successes and failures.[146] The selfishness of this successful individual justifies all the maximisations of private interests and the closing of frontiers to the Other.

Worse still, this individualistic ethic, centred on the immediate intentions and actions of an individual, prohibits any systemic approach and establishes an epistemic blindness to distant problems, which Nietzsche rightly denounced, with the need to reshape this fatal Aristotelian-Christian-liberal heritage still not having been heeded:

> In terms of morals, too, there is a certain perspective. How little man feels responsible for the indirect and distant consequences of his actions! And with what excessive cruelty the consequences of our actions finally dawn on us as our short-sightedness at last grasps them! We only feel the weight of a

144. E. Morin, *La Méthode,* 1977, p. 13.

145. F. Pessoa, *Aforismos y afines,* Axial, 2013.

146. E. Hache, 'Néolibéralisme et responsabilité', *Raisons politiques, Presses de Sciences Po,* vol. 4, no. 28, 2007, pp. 5–9.

> fault because it is before our eyes. What a difference *distance* makes in measuring its *severity*![147]

This short-sighted ethical view is fatal with regard to most of the current social and environmental problems, all of which require a "broad view" of the "distant" impacts of our collective actions, something that an ethical focus on immediate individual actions will never be able to capture. From this socio-environmental systemic point of view, it is much more serious for an "innocent" person to finance, in complete legality, a production chain that violates the rights of workers in Third World countries and destroys the environment, than it is to disrespect a fellow student in class. Ethics that see and condemn the second act but turn a blind eye in the face of, for example, the mobile phone market, are immoral, masking the real issues of justice and sustainability in favour of focusing on interpersonal minutiae.

Social and environmental problems are therefore deemed strictly "political": ethics and politics are separated and contrasted a priori on the basis of individual/collective, values/strategies, and finally theoretical principles/tactical pragmatism, which make ethics socially ineffective as a principle, and politics detached from morality as a matter of efficiency and pragmatism. This is followed by the litany of endless complaints about the wanderings of human history and the inefficiencies of good intentions.

Hence the need, if we want to **teach the ethics we need for our *Homeland Earth***, and to etch into hearts and communities a global inclusion of all the obscured vulnerabilities and marginalities, for a **radical overhaul of the definition of ethics, based on complex thought**, allowing it to integrate the whole, the distant, the systemic and the efficient, and no longer to be the useless fragmentation of individual criticisms of misconduct on the part of individuals, which never does more than play the power game, since it masks the mechanisms of its domination.

Indeed, an ethic that is (1) collective as well as individual, (2) mindful of the distant as well as the immediate, (3) embracing of the entire socioplanetary system and (4) effective in its theoretical and practical advances, must:

1. Abandon its theoretic monodisciplinarity in order to open up to all transdisciplinary dialogues with all social agents and specialisations;
2. Recognise the intrinsic plurality of our societies and their millenary cultural interdependencies in order to enable everyone to participate in the dialogue as equals;

147. F. Nietzsche, *La Volonté de Puissance I,* Paris, Gallimard, 1995, p. 115.

3. Integrate social justice and global sustainability into the pursuit of personal well-being, and thus construct itself in three auto-socio-anthropo-ethical aspects.[148]

4. Embody itself as a model for managing the collective actions of the different organisations by integrating the need to manage social responsibility and the production of social innovations.

We will therefore have to think of the following two conceptual trinomials as the theoretical basis for the balanced and inclusive education of the future:



In this complex framework, ethics, as a theory of duties, are conceived in the triple requirement of individual goodwill, collective justice, and global sustainability. And ethics, as the exercise of duties, become the **responsibility** of the agents who must move it from speech (should be) to action (to be), and therefore who must, both at the intra- and interpersonal levels (Virtue), as well as at the levels of social justice and the sustainability of modes of production and consumption, be **innovators** in a new world, a new society, in a new way to inhabit the earth together (Morin's "Homeland Earth").

This responsibility cannot be declined individually and separately: it is an inter-, trans- and meta-organisational co-responsibility that requires responding to issues of justice and unsustainability in association with agents capable of empowering themselves to solve immense problems. As the problems targeted are generally systemic and transnational, the associative ranges must be adapted to each challenge. It is, therefore, a social co-responsibility and not an individual responsibility of virtue. This co-responsibility can of course be institutionalised in a legal way (*hard law*) or in a strategic way, by combining the interests of the various stakeholders (*soft law*).

148. E. Morin, *La Méthode. Tome 6, Ethique,* Paris, Le Seuil, 2004, and F. Vallaeys, *Pour une vraie responsabilité sociale: clarifications, propositions,* Paris, PUF, 2013.

The social innovation in question, guided by this social co-responsibility, cannot be merely through the creativity or the cunning findings of entrepreneurs. It must guide innovations and make them dependent on ethical standards. The search for virtue, justice, and sustainability drives the dynamics of innovation and entrepreneurship and constitutes a community of mutual learning around common issues to be solved and innovative solutions to be provided, excluding all solutions that would be worse than the issue at hand, or that would lead to new negative social and environmental impacts. Needless to say, a narrow monodisciplinary vision of problems and issues, carried out alone without a collaborative and democratic approach, will never allow the ethics in question to be put into practice.

In practical terms, the agents of ethics based in three dimensions become adept in social co-responsibility by asking themselves, when making a decision, not only whether this decision is good and fair, but also whether its future impacts and collateral effects are fair and sustainable. A three-dimensional approach to ethics will concern itself with **outcomes** (always distant, complex and interwoven, systemic) as well as with **actions** (always close, isolatable and salient, one-off), because what is seemingly good or morally indifferent as an action, for example making a purchase in a shop, can turn out to be unjust or unsustainable as an outcome, such as a supply chain that hides the exploitation of workers or a type of production that destroys ecological equilibria.

It is therefore not insignificant to move from a narrow conception of ethics, centred solely on individuals in their bare and detached state, concerned only by their own decisions through their own will, to committed ethics, open to the inter- and trans-effectiveness of the "ecology of action",[149] capable of encompassing all people in a conscious concern to be non-injurious. It is from this committed, responsible conception of ethics that all the current social innovations of sustainable development entrepreneurs are born, who know how to create value upstream of business creation, innovations starting from the enhancement of a sustainable world, fairer with humans, more balanced with ecosystems. It is not a question of making money at the expense of people and the planet, then making a marginal contribution by doing some good deeds for solidarity causes; it is a question of devising the initiative from the outset to cover the entire field of interactions, by composing everyone's needs and addressing imbalances. Then, and only then, can the economy claim to be restorative, and no longer predatory.

149. E. Morin, *La Méthode. Tome 6, Ethique,* 2004.

5. The cure for narrow mindsets and ethics: relational ontology

Yet, it will be no coincidence that for those who have not seriously considered the problem of the lack of openness of education to plural dialogues, the effort to think of both humans and ethics in a directly relational, complex and non-insulative way does not come from a Western tradition but from Eastern phenomenology.[150]

For example, it was the Japanese philosopher Watsuji Tetsurô (1898–1960) who best denounced "the error, specific to modern times, of making ethics simply a question of individual conscience".[151] This error paradoxically prevents ethics from applying to their own purpose, that is, to the:

> …problems of human existence, the problems of the active and practical network […], the position of isolated subjectivity, which has abstracted itself from the network of actions from man to man, applied here by force to ethical problems.[152]

Hence the wanderings, clichés and repeated inefficiencies of moralists' injunctions, always lamenting the lack of goodness of individual will, to finally call for the overcoming of the community's well-being against the individual, with all the risks that this implies.

The remedy to abstract and isolating thinking is always to return to an a priori relational, and therefore dialectical, thinking, which quite naturally provokes a profound criticism of the monodisciplinarity of our categories of analysis and of educational and academic

150. Granted, it would be unfair to say that the West only produces individualistic substantialist thought. In France, the philosophies of Emmanuel Lévinas, Francis Jacques and Edgar Morin have systematically sought to be relational, as have those of Jürgen Habermas and Karl-Otto Apel in Germany. Thinking in relational terms, for example, means to consider the "I" far removed from the substance, in the relational context of interlocution, as with Francis Jacques:

> As the 'we' is the only relatively stable point in the area of interlocution, the only invariant, in relation to it, 'I' and 'you' constitute simple provisional and differential points of elocution. It is clear that the use of 'I' immediately represents a relational and differential exercise. Who am I to you who is talking to me? Who am I to him who talks to you? the 'I don't' reveals itself only in the allocution to a 'you' and in the dislocution of others towards it. In short, the connection to the other precedes the experience of the 'self' itself. This 'personal' pronoun marks within the speech the presence of one of the agents of communication rather than the subject of the word. As such, it occupies the detrimental position of being the one who speaks, the one to whom we speak, and the one we speak of. Whilst the subject of the discourse, the reference, is cooperatively constituted by the progressive contribution of the messages exchanged, what about the real subject of the discourse? Our answer is that it is the relational instance that actually produces the discourse. (F. Jacques, *Différence et subjectivité,* Paris, Aubier-Montaigne, 1982, p. 32).

151. T. Watsuji, 'La signification de l'éthique en tant qu'étude de l'être humain', *Phénoménologie Japonaise,* Revue Philosophie, Editions de Minuit, vol. 4, no. 79, 2003, p. 5.

152. T. Watsuji, 'La signification de l'éthique en tant qu'étude de l'être humain', 2003, p. 5.

institutions. The way in which Watsuji develops the dialectical understanding of the notion of man from the Japanese language to the point of criticising the differentiation between person and society, which is the foundation of modern school and university institutional structures (consider the differentiation between psychology and sociology, between human sciences and natural sciences, etc.), is exemplary on this point:

> But if man is originally a social animal, things like relationship or society cannot be removed and separated from him. Man must be a being who acquires individuality and who at the same time exists socially. Nowhere is this dual characteristic better expressed than in the expression "ningen" 人間 [the human being, in Japanese. T.N.]. For this reason, if we stand on the level of "ningen", maintaining "the study of man" (anthropology) and "the study of society" as somehow separate things, this is nothing more than a process of removal, abstraction and autonomisation of these parts in regard to the actual human being. However, if we want to examine man in such a concrete manner, this double consideration must constitute a single science of man. But at the same time, the latter must not be a combination of a random science of the individual and a science of society, but it must be something that is fundamentally different from both. For the fact of capturing man and society according to this dual characterisation of the human being and thus showing the deep essence that underlies the human being, absolutely cannot be acquired from a point of view that presupposes the difference in principle between the person and the society.[153]

Watsuji thus arrives at a dialectical definition of humanity that, in our opinion, should be the ontological basis for Balanced and Inclusive Education, and the complex (3D) ethics that support it:

> The human being *is* "the world" and at the same time, *is* the person who is part of the world. And because of this, he *is not* simply "the person", nor is he simply "the society". What can be seen here is a dialectical unity of the dual character of the human being. The human being who is limited to the person, as in being an individual, is radically different from society. It is because he *is not* the society that he *is* the individual man. Such that an individual does not exist in community with other individuals. They are absolutely different from each other. Nevertheless, the human being, insofar as he also signifies the world, also radically takes the form of the existing community from person to person, the social form, which is not that of the isolated person. It is because he is not an isolated man that he is precisely a human being. Thus, the one and the other, at the same time as they are in an absolute mutual otherness, and in spite of this fact, become one in the community existence.

153. T. Watsuji, 'La signification de l'éthique en tant qu'étude de l'être humain', 2003, p. 10.

> The individual man is fundamentally different from society, and yet he blends into society. The human being consists of the union of these opposites. Until we see this dialectical structure, we cannot understand the essence of the human being.[154]

In the end, Watsuji's dual dialectical anthropology recaptures the ability to be useful to ethics:

> Man is "somebody in the company of others", the world is a social world, that is to say, "a world in the company of others", and "being in the world" is "the act of mutual encounters". For this reason, such an anthropology could only become a basis for ethical questions. Because the fact that man takes an approach of mutual encounter in his behaviour as a lifelong experience, such behaviour is therefore a fundamental attitude of man, a *fundamental way of behaving*, that is, a behaviour of *ethos*. For this reason, the study of existence in the dimension of human reciprocity is transformed into an ethical science.[155]

We then understand that being in the human world is an ethical bond of responsibility, since it is not an occurrence in the reproduction of the biological survival system of homo sapiens (a system of adaptability by inputs and outputs in the way that animals use to adapt to their environment) but an **encounter** with the world, with others, things, situations, etc., in relation to which humans will position themselves, respond, react, by inventing their means of response, in and through language, art, cuisine, technology, architecture, and the thousands of cultural articulations of human life. The (sordid) culture of competition and the race for Darwinian success that we have, where the world is sold to the isolated individual not as something that he must encounter but as something to which he must adapt ("there is no alternative", Ms Thatcher oft repeated) and which he must dominate by maximising his success and individual power against all others, is now over. The (fatal) disciplinary separation between ethics and the sciences has also ended, since any scientific ontological position is an ethical one, an *ethos*.

In essence, this does not mean that the scientist must abandon all specialised positions in his field in order to indulge in an infinite ethical holism that is impracticable and ineffable. In other words, all its epistemological decisions and obligations of distinction, separation, abstraction, autonomisation, reduction, simplification, must be scrupulously thought out, discussed, recalled and monitored in order not to end up with a disfigurement of the world and life, thus with ethical errors under the guise of scientific activity. Reminding the

154. T. Watsuji, 'La signification de l'éthique en tant qu'étude de l'être humain', pp. 11–12.

155. T. Watsuji, 'La signification de l'éthique en tant qu'étude de l'être humain', p. 13.

scientist that their activities are social, ethical, therefore responsible, and interwoven with all other activities, is an urgent necessity to reintroduce into faculties and laboratories, in order to find a science with conscience, a balanced, inclusive, transdisciplinary, dialectical education, sensitive to its contexts of production and application, cultural and human achievements. But be aware: we should not advocate transdisciplinarity, dialecticism, or contextuality as a kind of self-righteous charity, which would once again allow the positivist to scoff and denounce a loss of scientific rationality. On the contrary, it must be shown that the very essence of scientific rationality cannot escape them, precisely in order to be able to constitute itself as science.

6. The problem of a monodisciplinary science and its overshadowing influence in a communicative scientific community

In fact, a monodisciplinary science, assuming without question the "School of the Mourning of Knowledge" (the impossibility of having a knowledge of reality that is not fragmented, disfigured or hyper-specialised, according to Morin) and conceiving an instructive dialogue only between peer experts, is wrong in itself and deludes itself on what constitutes its own rationality. This is the foundation work of rationality undertaken by the second Frankfurt School, that of K.O. Apel and Jürgen Habermas, which has demonstrated that the field of scientific rationality could not do without dialogical processes of intercomprehension between researchers, and therefore an ethic of dialogue and specific norms that value argumentation between free persons with an equal right to speak.[156] That is to say, at the very heart of the most positivist scientific activity possible, lies an axiology and a dialogic without which the positivist scientist could never say "this is science, this is not science":

> The logical validity of arguments cannot be controlled without presupposing in principle a community of thinkers capable of achieving intersubjective understanding and the formation of a consensus.[157]

Apel demonstrates that in any scientific investigation, and beyond, in any discursive claim to validity, a community of ideal communication is presupposed: to agree between subjects on something intersubjectively valid is to justify one's assertions before the unlimited community of interpretation, i.e. to seek a universal consensus in ideally perfect conditions of intercomprehension. The willingness to seek a consensus, which defines the attitude of the one who argues, already constitutes the recognition of ethical norms that

156. K.O. Apel, *L'éthique à l'âge de la science*, Lille, PUL, 1987, and J. Habermas, *La technique et la science comme idéologie*, Paris, Gallimard, 1973.

157. K. O. Apel, *L'éthique à l'âge de la science,* 1973, p. 92.

are consubstantial with the idea of a community of communication. Thus, argumentative discourse presupposes an ethic of argumentation, and an ideal aspiration for a peaceful consensus, without violence, without intimidation, without power relationships, between speakers who are all equally free and capable of reaching agreement, and accepting as true only that which they can prove themselves mutually by arguments that can be universalised, in order to reach agreement independently and without being subjugated or extorted. The difference between the scientific discourse seeking the truth, and the strategic discourse seeking the domination and instrumentalisation of others, unquestionably depends on this ethic of argumentation.

From here, it appears that the search for objective validity cannot be separated from a certain practical, ethically relevant attitude, which postulates the possibility of reaching a universal consensus. **Science, in order to be science, needs democratic and dialogical ethics of free conviction built amongst equals**. Hence the absurdity of the scientific positivist attitude that dismisses all ethical questions as invalid emotional reactions or social customs, which should be abandoned to relativism and *doxa*. This discovery of ethics at the heart of scientific rationality (and of any claim to validity in general) is fundamental to validate and legitimise Balanced and Inclusive Education:

1. If scientific activity cannot do without a fundamental ethical norm of a dialogical nature, this means that education cannot insist on so-called "rational" disciplines (science, techniques, technologies, logical intellectual activities, etc.) without also insisting, in a balanced way, on the disciplines that **bring people together** in processes of encounter and intercomprehension (arts, humanities, activities that are hermeneutical, therapeutic, dialogical, discursive, expressive, aesthetic, recreational, festive, etc.), which are just as "rational" as others, since they stimulate the construction of this community of free and peaceful communication that forms the basis of humanity's humanity and the possibility of its rationality. **To reason without bringing people together is not a reasonable activity**, because no one can possibly be right when they are alone in their own corner. Let's put it another way: logical reasoning is always an encounter. Thus, Balanced and Inclusive Education is justified by transdisciplinarity, dialogue and contextuality, by the balance between logical-deductive, instrumental, hermeneutical, communicative, expressive, ethical and aesthetic activities.

2. If scientific activity cannot do without a community of free communication, ideally without limits since it aspires to universal validity, **no one can be excluded a priori** from participation in this community of communication.

This is evidenced by the fact that no consensus of the academic community can be considered definitive, if not in all cases provisional, since it is intrinsically dependent on a future rebuttal by a new speaker with new concepts and evidence.[158] If, therefore, the scientific community of communication is in theory open and democratic as a condition for the possibility of its rationality (against any dogmatism), then the **inclusion and welcoming** of all potential participants in the argued dialogue is also in principle justified as a fundamental norm constituting the guarantee of rationality. This is all the more so the case since, beyond scientific activity, human social responsibility towards their collective life requires listening to all parties interested in and affected by this collective life, including future generations.[159] Balanced and Inclusive Education, through dialecticism, intraculturalism, transdisciplinarity and contextuality, is thus also justified as being the most in line with rationality.

7. Conclusion: A responsible education in a community of agreement for the solution of our mutual problems

Defending intraculturalism, transdisciplinarity, dialecticism and contextuality at the heart of education is therefore not a minor detail but a strong and radical conception of rationality and ethics that combines a concern for differences and a penchant for universality, for the open progress of the sciences, society and the humanities. Balanced and Inclusive Education, supported by academic social responsibility that manages the cognitive and educational impacts of future professionals in order to promote a more just and sustainable society,[160] will build the foundations for a more welcoming and communicative humanity, cementing the rationalisation of political decisions and collective learning.

It is urgent. The global signs of our unsustainability are becoming more evident every day, and they highlight the extreme need for broad consensus and coordination amongst a host of parties from different backgrounds (private, public, local, international, etc.) to manage the negative impacts of our production and consumption and to create a new restorative economy instead of a predatory one. Isolated initiatives will not lead to the creation of a new system. However, there can be no consensus and coordination between different parties without overcoming the blind intellect of hyper-specialisation and without establishing intersubjective and transdisciplinary connections. We must come together

158. K.R., Popper, *La logique de la découverte scientifique,* Payot, Paris, 1973.

159. M. Bonnafous-Boucher and Y. Pesqueux, *Décider avec les parties prenantes, Approches d'une nouvelle théorie de la société civile,* La Découverte, Paris, 2006.

160. F, Vallaeys, et al., *Responsabilidad social universitaria. Manual de primeros pasos,* 2009.

on common roads of intercomprehension oriented towards concern for the common good for the planet, for both local and global aspects. Every day, the herding silo mentalities increase the risks of a breakdown in living conditions.

At the level of education, this means that we must greatly develop the skills of intercomprehension, acceptance, interaction and empathy, within the framework of a complex three-dimensional ethical concept (personal virtue, social justice, global sustainability), which once and for all goes beyond the philosophical error of an individualistic and substantialist conception of the human being as a separate and independent individual, able to exist without the interwoven sphere of relations with others and with environments, liberal Robinsonade that is still promoted by homo economicus and institutionalised by our cities and organisations, albeit a false conception from beginning to end. The narcissistic autism heralded by the technological mediation of virtual networks represents a definite risk for intersubjectivity, but also an opportunity for effective collaboration if educators know how to innovate and quickly take charge of the internet era in a pedagogical mindset of mutual learning communities.

How can we work towards this kind of pedagogy? The mutual learning community is the next subject to be developed for this balanced and inclusive education that is concerned with justice and sustainability. This collective subject must reformulate the construction and transmission of scientific, technical, humanist, artistic and cultural knowledge in a new way, beyond the walls of educational institutions. Although numerous methodologies can be applied, we believe it is particularly important to embody it concretely in schools, colleges and universities through the pedagogical method of **Social Project-Based Learning**, i.e. a methodology where learners work together with other social agents outside the educational institution to solve real problems of real people (social and environmental) thanks to innovative projects, resulting in better well-being, new relationships, new tools for conviviality, new interaction processes, etc. The forms of application can be very diverse, but they all require a detailed reading of the context, democratic participation in the solution, construction of collective autonomy, respect for and beneficial utilisation of differences, a concrete use of knowledge and techniques, a concern for a sustainable and satisfactory solution for all: in short, the construction of a **community of rationality based on agreement**, which should be the definition of our humanity.

Through the pillars of intraculturalism, transdisciplinarity, dialecticism and contextuality, Balanced and Inclusive Education provides us with both the ethical and the practical framework for redesigning our education systems. The principle of "inclusion" is no longer limited to the access of the marginalised to the school institution as it stands, but goes beyond this by also seeking to resolve the causes of exclusion, marginalisation and imbalance in our societies, the seed of which lies at the heart of our education systems. The

principle of "balanced education" no longer means a condescending charity for "humanistic" fillers alongside "important" teachings, but a profound understanding of the process of building human rationality, and a liberation from the ideological straightjacket that is currently undermining the very meaning of scientific activity. When learning comes out of the closed classroom to open minds and hearts to the challenges of territories and to have a dialogue with all people to find innovative solutions to human problems, it reunites science, ethics and pedagogy around a worldwide shared responsibility. Then, education finds its balance, becomes inclusive, and offers the promise of a humanity that is finally intelligent towards itself, its children and its dreams. ■

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Postface



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Guide for Managing University Social Responsibility from Latin America:

An Institutional Framework for Balanced and Inclusive Higher Education

TRANSLATED FROM SPANISH

2018
Unión de Responsabilidad Social Universitaria Latinoamericana (URSULA)
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INICIATIVA DE INNOVACIÓN SOCIAL

I. Balanced and Inclusive Education (BIE) and University Social Responsibility (USR)

Social Responsibility is not an organisation's voluntary contribution to society, but rather its duty to respond to the impact it has had on society and the environment. "Do not tell me what you do with your profits, tell me how you obtain them" is the motto of social responsibility. It demands more than a mere well-intentioned commitment to social and environmental causes, with which social responsibility is always confused.

Of course, the university's social responsibility relates to the impact caused by its method of educating students, conducting research and producing new knowledge, connecting with its milieu, managing the campus, interpersonal relationships, its ecological footprint, etc. USR therefore entails the university's ongoing reflection on its role in society, being honest about the negative consequences of its actions in order to improve, and continuously attempting to create internal policies that extend its positive impact on society.

USR must be understood and implemented as a comprehensive, transversal management model which, just like Quality, should guide all the University's actions, from the purchase of office supplies to curriculum design, led by its lines of research and the ties the institution creates with local partners, aligning all its routines and institutional decisions with ethical principles of transparency, social justice and environmental sustainability.

As this is a management model, the Unión de Responsabilidad Social Universitaria Latinoamericana (URSULA), a partner of the Education Relief Foundation (ERF), has designed a simple self-assessment tool, based on 12 goals and 66 indicators, which help institutions of higher education to start examining their social and environmental impact, recognise their achievements and shortcomings, and move towards continuous improvement in social responsibility, within the framework of a continental dynamic in which universities can compare their performance with the average of other universities. The twelve socially responsible goals also serve as an agenda for the change in academics' mentality required by the unsustainable state of our global and local development.

But to what extent does USR help promote a balanced and inclusive higher education? To the extent that USR helps the university avoid being ruled by the illusion of international rankings, which propose an empty, soulless, and abstract "quality of education", based on evaluation criteria disconnected from regions and concrete social problems, and almost exclusively aimed at commercial success, such as the number of Nobel prizes earned by alumni, the annual salary of its graduates, the number of publications in Web of Science journals, etc. By reintroducing the university to the social context in which it operates and to awareness of the urgent ethical, social and political matters of human development,

USR connects educational and scientific policies to what really matters: a more harmonious human community with a just, dignified and responsible lifestyle.

USR and BIE are inextricably linked insofar as they share an appreciation of an education balanced between humanist and specialised elements, given that socially responsible education and research promote methodologies for learning and knowledge creation open to ongoing dialogue with the community, thus simultaneously cultivating humanist skills (communication, empathy, listening, etc.) as well as technical and specialised skills. In the same way, USR and BIE insist on a duty to include all members of the greater community of learning and coexistence without discrimination, marginalisation or deprecation.

More precisely, a socially responsible administration and education are attuned to the context in which the educational institution operates, establishing deep relationships with the area, its people, and its problems. This way, the educational process should never stray from the intracultural scope that shapes the university's specific subject matters and methods of teaching and building knowledge. A careful management of the educational institution's social and environmental impact never ceases to guide its participants towards critical analysis, complex thinking, and dialecticism. And because all social problems are always multi- and transdisciplinary, dialogue and permanent transcendence of disciplinary boundaries are guaranteed through teaching methodologies based on social projects and community-based research methods.

Twelve Socially Responsible Goals	Relevant BIE Pillars
1. Good work environment	Dialecticism, Intraculturalism
2. Ecological campus	Contextuality, Transdisciplinarity
3. Ethics, transparency, and inclusion	Dialecticism, Intraculturalism
4. Social Project-Based Learning	All
5. Inclusion of SDGs in curriculum	All
6. Learning programmes co-designed with external stakeholders	Contextuality, Intraculturalism
7. Inter- and transdisciplinarity	Transdisciplinarity
8. Community based research	All
9. Production and public dissemination of useful knowledge	Contextuality, Intraculturalism, Transdisciplinarity
10. Integration of social projects in education and research	Dialecticism, Contextuality, Transdisciplinarity
11. Co-designed, lasting, and impactful projects	All
12. Participation in local, national, and international development agenda	All

II. Implementation of a USR Management Model

i. USR: Comprehensive and Transversal Management

When defining University Social Responsibility (USR), it is common to fall into the following traps:

1. Believing USR is analogous to Corporate Social Responsibility (CSR).

   It is important to keep in mind that every organisation's social responsibility depends on the specificity of the effects it produces on an institutional, local and global level (along with the internal and external participants involved). In the case of a university, it must monitor its academic impact (formative and cognitive), which is very different from the impact of a simple business.

2. Defining USR as a synonym for social commitment or social solidarity.

   University Social Responsibility cannot be reduced to volunteer aid (social aid, charitable, and/or humanitarian activities), because philanthropy is not the heart of university activity—it is discretionary and non-systemic. As it accepts responsibility for the social impact of its mission's activities, the university is obligated to continuously direct all its decisions and procedures towards justice and sustainability.

3. Reducing USR to the act of Social Outreach and/or Planning.

   Neither can USR be reduced to social programs or extra-curricular activities with the university community, given that USR is a global process and one which involves sustainable, transversal, and participatory management of the different areas of university activities: administrative, training, cognition, and social participation. Outreach is a fundamental element of the USR, but only one of its elements.

Definition of USR:

University Social Responsibility is the comprehensive, transversal management policy of a University that not only wants to be part of the solution, but also knows itself to be part of the societal problem, and which decides to critique and change its administrative, educational, research and social participation routines, continuously examining and improving its social and environmental impact, in order to actively contribute to creating a fairer, more sustainable society in the territory in which it operates.

In light of the university's impact on its internal community and the environment, on its students, on knowledge and society, each institution must commit itself to socially responsible engagement in 4 areas of action:

1. Organisational management
2. Education
3. Cognition
4. Social participation

Each of these areas of action contains three goals for socially responsible engagement. Thus, there are twelve goals of University Social Responsibility (USR), each with specific indicators.

These twelve goals allow us to describe the efforts to promote transversal management of USR in universities. They are a selection of desirable measures for socially responsible management of the University, chosen based on the theory and practice of USR in Latin America.

The 12 goals and 66 indicators represent a guide for implementing a System for Managing University Social Responsibility. This is presented as a guide to lay the foundation for USR within the institution of Higher Education.

It is essential that the fields of USR be worked on alongside one another. On one side is the improvement of internal Organisational Management, given that this will allow collaborators to contribute and facilitate the implementation of the USR approach throughout the educational campus. On the other, an emphasis on training will bring forth conscious students and participants committed to sustainable social development. Similarly, work in the cognitive field will help with relevance of research and finding solutions to real problems through mutual learning. Finally, the management of social participation should focus on actions that improve connection with external parties and the effectiveness of the university as a key player in development, rejecting mere paternalistic aid.

TABLE I. Twelve USR goals

USR Areas of Action	Twelve Socially Responsible Goals	Description
1. Organisational Management	1. Good work environment	Achieve a harmonious work culture for the effective development of educational and cognitive agendas, with synergy and creativity amongst participants
	2. Ecological campus	Create a campus that is environmentally responsible in all aspects, by monitoring the ecological footprint and training internal parties
	3. Ethics, transparency and inclusion	Practice good governance that includes participatory consensual decision-making, the inclusion of marginalised personnel, and ethical management.
2. Education	4. Social Project-Based Learning	Professional training focuses partially on solving real social problems in communities outside the university
	5. Inclusion of SDGs in curriculum	Integrate the UN's Sustainable Development Goals into educational requirements for all degree programmes, through suitable courses.
	6. Learning programmes co-designed with external stakeholders	Allow external parties interested in graduates' success to participate in the regular revision of professional programmes, in order to make education socially relevant
3. Cognition	7. Inter- and transdisciplinarity	Teach academics to overcome a strictly disciplinary perspective in order to address social problems that are never mono-disciplinary
	8. Community based research	Introduce participatory, transdisciplinary research methodologies, involving external participants in knowledge building
	9. Production and public dissemination of useful knowledge	Make knowledge useful for solving social problems available to the public, thus making research socially relevant
4. Social Participation	10. Integration of social projects in education and research	Link education, research, and outreach, so that social projects are three times as useful
	11. Co-designed, lasting, and impactful projects	Ensure that social projects are co-designed with outside communities, based on long-term cooperation agreements, achieving significant positive results
	12. Participation in local, national, and international development agenda	Make the University an important influence on territorial development and a promoter of social transformation at a local, national and international level

Source: Unión URSULA, Vallaeys y Solano, 2018.

TABLE II. 66 USR indicators

Areas of action	66 USR indicators for the 12 goals
1. Organisational Management	**1: Good work environment** 1.1 Work is carried out with a continuous evaluation and improvement of the work atmosphere 1.2 Processes are established that allow personnel to participate in determining goals and indicators for quality, university performance, and dialogue circles 1.3 Responsible, inclusive, and non-discriminatory recruitment processes are developed 1.4 Workers are given opportunities for professional and personal development, as well as wellness benefits (health, arts, sports, etc.) 1.5 Labour rights and work-family balance are respected 1.6 Volunteering is promoted amongst administrators and teaching staff 1.7 There are structures in place to support diversity within the university community, gender equality, and non-discrimination in management positions **2: Ecological campus** 2.1 A Comprehensive Environmental Management System is in place (transportation, infrastructure, water, energy, spending, nutrition, waste) 2.2 The ecological and/or carbon footprint of the university is evaluated regularly 2.3 There is a socially responsible purchasing policy that monitors environmental care in the supply chain 2.4 Training processes are developed regarding environmental issues for the entire university community 2.5 Environmental volunteering is promoted on campus **3: Ethics, transparency, and inclusion** 3.1 There are codes and policies related to ethics, transparency, and resisting corruption

	3.2 Ethical purchasing processes are developed in the supply chain without compromising human rights 3.3 There is a University Ombudsperson and proper channels for handling complaints and petitions in a timely manner 3.4 Democratic participation in university life is encouraged (administrators, teachers and students) 3.5 There is a policy for admission and retention of students in vulnerable situations 3.6 There are processes in place to ensure institutional communications and marketing are socially responsible
2. Education	**4: Social Project-Based Learning** 4.1 In all programmes, various courses are taught using the methodology of Social Projects Based Learning (SPBL) 4.2 Teachers are trained in the method of teaching/learning based on solving social problems 4.3 There is a set of social projects connected to each degree programme 4.4 There are agreements signed with communities and external partners for the development of social projects 4.5 Inter-departmental connection is fostered for an inter- and transdisciplinary approach to social problems 4.6 There is competitive funding, teaching incentives and support for student initiatives to carry out of social projects 4.7 Administrative operations have been adapted in order to facilitate and support SPBL **5: Inclusion of SDGs in curriculum** 5.1 SDGs have been included in each programme's curriculum in a transversal way 5.2 Teachers are trained to connect their specialties with the public agenda for local and national development

	5.3 There is synergy between SDG issues and SPBL projects in each programme 5.4 Spaces are created for participatory reflection on the positive and negative impacts of each programme, in relation to SDGs 5.5 Thematic connections between each programme and SDGs have been analysed 5.6 Students from all degree programmes are familiar with the major international agreements and treaties connected to SDGs **6: Learning programmes co-designed with external stakeholders** 6.1 The curricular matrix of each degree programme is updated in accordance with regular meetings with external players and open academic forums 6.2 Diversity criteria are considered in the selection of external partners 6.3 Each programme has a network of associated and relevant external parties to engage in dialogue for regular revision of the curriculum 6.4 Communicating with and including graduates in university life
3. Cognition	**7: Inter- and transdisciplinarity** 7.1 There is a cross-curricular policy promoting inter- and transdisciplinarity 7.2 Lines of research oriented towards the SDGs are promoted 7.3 Interdisciplinary research teams are set up 7.4 Teachers and researchers are trained in inter- and transdisciplinary research 7.5 Spaces are created for dialogue between researchers and those who create policy

	8: Community based research 8.1 Research has been developed in and with the community 8.2 There are processes for training teachers about participatory research in the community 8.3 There are cooperation agreements with vulnerable communities for research on their social problems 8.4 The university helps vulnerable communities in producing their own knowledge to aid in their development 8.5 There are processes that ensure research topics are defined with the consensus of external groups involved **9: Production and public dissemination of useful knowledge** 9.1 Channels and methods are developed for scientific dissemination to non-academic audiences 9.2 Transfer of technology and innovation to vulnerable communities is promoted 9.3 Research, development, and innovation are linked to create ventures with social and environmental purpose 9.4 Measurement of the social impact of the knowledge produced by the university 9.5 Presence in the mass media and social networks on subjects related to USR 9.6 Regional development priorities are established for university research policy
4. Social Participation	**10: Integration of social projects in education and research** 10.1 Structures are developed to connect professional training and research with social outreach and solidarity 10.2 Social service and student volunteering are linked to professional training, research and innovation

10.3 There are mechanisms allowing social projects and community research to contribute to improving the contents of professional training

10.4 The university's high-level administrators work as a team to enhance the social role of the university

11: Co-designed, lasting, and impactful projects

11.1 Projects are co-created with vulnerable communities and have a lasting social impact on sustainable development

11.2 There are mechanisms in place for social projects to prevent dependence on aid and paternalism

11.3 Long-term cooperation agreements with vulnerable communities exist in order to focus on social action

11.4 There are mechanisms to promote entrepreneurship and thus the financial sustainability of social projects

11.5 The impact of social projects is evaluated and projects are structured for continuous improvement and scaling

11.6 Local parties affected by social projects are encouraged to participate in design, execution, and evaluation

12: Participation in local, national, and international development agenda

12.1 There are cooperation agreements with public and private actors related to the SDG agenda

12.2 Processes are developed to allow the university community to participate and influence the SDG agenda at the local, national and international levels

12.3 The university participates in academic and non-academic networks to achieve SDGs

12.4 The university has an impact on the discussion and design of public development policies

12.5 The university has an impact on the discussion and design of private development policies

Source: Unión URSULA, Vallaeys y Solano, 2018.

ii. USR Management Processes: Five Stages Over Two Years

Based on the above, the Process for the Managing USR should consider a two-year cycle with the following five stages:

1. **Awareness and Commitment**
   Find innovative ways to sensitise, engage, and train all members of the university community, starting with the administration, regarding a duty to respond to the university's impact. This is a continuous process.

2. **USR Assessment**
   Conduct an assessment on the social and environmental impacts of the institution in a participatory manner, including the maximum number of internal participants (self-diagnosis), and use the results as material for democratic debate on policy formation. This is a biannual process.

3. **Institutional USR Policies Design**
   Design internal policies for continuous improvement based on self-assessment. These must respond to the impact of the 4 areas of action and support the 12 goals. Engage and train all parties involved. This is both a biannual and continuous process. Policies include guiding principles, plans, programmes and/or projects, indicators for evaluation and allocation of necessary resources.

4. **Implementation of Policies and Projects**
   Engage all members of the university community in the implementation, execution, and evaluation of policies, with conscious management of the indicators. This is both a biannual and continuous process.

5. **Results Report, Constructive Feedback, Restart the Cycle**
   The results must be communicated widely and openly to internal collaborators and external partners. Providing maximum internal and external publicity to the results obtained promotes collective resilience and motivation to continuously improve based on measures that tell us whether or not we are moving in the right direction.

The implementation of this cyclical USR mechanism is an ongoing process, which must rely on the idea of continuous improvement. To start, it is essential to remind and educate university stakeholders (internal and external) about the role of the university within and outside the campus, and use that information as a point of departure to involve them in the remaining stages of USR management. The great risk of USR management is falling into the trap of viewing it as a process to be carried out by a few delegated individuals, and one that does not concern other members of the university community.

It is important to remember that a diagnostic baseline is a fundamental element in launching a new process. This is because the work done will allow for understanding and awareness of the needs, problems, ideas, doubts, and expectations of the university's internal and external interest groups. The results of assessment can generate research and action, strategic processes for the transversal (internal and external) management of USR, and a continuous dialectical debate about how to effectively comply with institutions' mission statements, which are always well intended but are essentially declarative rather than effective.

The USR assessment should focus on identifying:

A. **What the University does:** Beginning with an evaluation of the status of the 12 USR goals in the university, its inventory, reporting, and reflection on the institution's work in the 4 areas of management, training, cognition, and social participation.

B. **How the University feels:** Based on surveys of USR topics, analysis, reports and reflections, which allow students, teachers and administrators to express themselves freely, and reveal problematic points the administration may not be aware of.

C. **What society demands from the University:** Based on interviews with various key external participants—whether they be public, private or community members—as well as research on the economic, social, and environmental context of the territory in which the university operates, so it can support work towards the territory's needs.

The questions that the university should ask for these three aspects are: Where are we? What are we missing? What are our priorities? Afterwards, a consolidated final diagnostic report for USR will be obtained, a work that must be disseminated internally to promote debates, prioritisation of actions and the design of USR policies (implementation, evaluation, and revision). We calculate a reasonable time period of two years to complete this cycle. Finally, the USR assessment process must begin again in the third year in order to measure changes (evaluation) and for updated, current information on the new needs and interests of USR stakeholders.

iii. Organisational Structure of USR Management

The administration's support is crucial in promoting University Social Responsibility, but it is also important to work with those specialised in the different USR areas; in other words, joint efforts are necessary for its implementation. The USR process moves from top to bottom (guiding principle) but also from the bottom up (motivating principle).

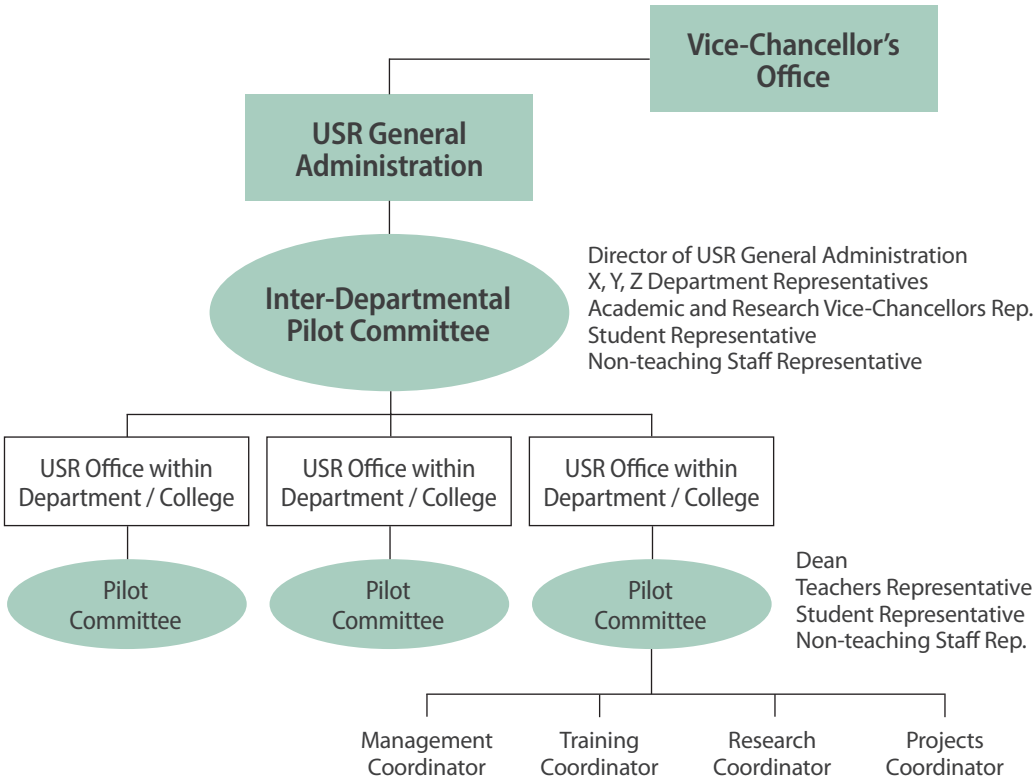
The university community needs to have a proactive attitude to implement the USR system, and must find and work with people who are truly motivated on a voluntary basis. Then, with awareness and proper incentives for promotion and execution of USR, the remaining internal parties can gradually be involved in the dynamic.

Promoting USR in the university as a transversal process, that allows for continuous coordinated improvement in all university management, demands a branch-like division of processes related to the 5 stages of the USR cycle; thus we suggest a USR organisational structure that allows both for mainstreaming (from the controlling power) and integration (from the participation of many stakeholders at all levels of the institution):

iv. Strategies for Continuous USR Improvement

Deeply penetrating the minds of academics and administrators, in order to gradually transform higher education, is a goal that can only be achieved gradually, through the patient work of persuasion and educating. Institutional compartmentalisation (internal non-communication) and the model of global academic excellence rankings (external

ILLUSTRATION I. *USR Organisational Diagram*



irresponsibility) constitute the two great barriers that stakeholders in USR must continuously work to overcome.

Organisational design can create **facilitators** so that attention to the university's social and environmental impact become mental and managerial habit for the administration:

- Internal structure fanning out USR in branches, creating synergy amongst many stakeholders in the organisation's various divisions.
- Strategic planning policies that mainstream USR in the institution's annual development plans, obliging each internal stakeholder to reflect on the impact of their daily activities on issues of social responsibility.
- Specific attention to the administrative processes of purchasing, transportation, consumption (energy, water, food…), waste, and infrastructure in order to insert criteria of social relevance and environmental sustainability into these managed chains.

Likewise, training, and communication can generate **motivators** for people to take ownership of issues related to USR:

- Building staff sensitivity through training and campaigns
- Design of incentives that motivate social responsibility
- Development of a socially responsible work culture

General USR policy depends on the success of divisional policies and programmes tied to established USR goals, from various departments and/or offices. And every departmental initiative must be in permanent synergy with the other initiatives, thanks to the general policy.

In general, the socially responsible competences that different stakeholders in the university community must acquire depend on motivation and the ability to answer four questions:

1. What are our negative impacts? (Organisational self-diagnosis)
2. What should we do to eliminate them? (Planning for continuous improvement and creativity)
3. With whom should we form partnerships to achieve it? (Inter-organisational network of co-responsibility)

4. What social innovation will we create with this? (Positive transformational impact)

III. Conclusion

The difficulty with USR lies in the main points of confusion surrounding it. Do not make the mistake of believing it is a business ideology applied to the University, or think of it as a social commitment with nothing but a desire for social solidarity. It is instead management of the university culture's impacts, positive (as commitment) and negative (as responsibility). It is a way of life in higher education, not to be reduced to a solely administrative matter (such as creating an annual sustainability report) or an office.

That is why it is important to socialise and create dialogue about USR, to encourage a paradigm shift; promoting Balanced and Inclusive Education is an excellent long-term goal that allows us to create a horizon to move towards, away from the desire to be part of the "Top 10 Universities" in international rankings, or to obtain international accreditation without concern for the local needs of the territory in which the university operates. USR can be thought of as an institutional framework suitable for Balanced and Inclusive Education to flourish. This can be considered the main objective of USR organisational changes, which are inherently painful because they entail leaving one's comfort zone and doing things differently. ■

Annex

Annex I: Logical Framework Template for Pilot Projects

Logical Framework			
Overall Goal			
Outcome(s) *Objective(s): Should be listed as follows:* *A.* *B.* *C.* *etc.*	**Objectively Verifiable Indicators** *Targets, performance indicators, variables*	**Source Of Verification** *Means of verification, means of assessment, sources of information*	**Assumptions** *Risks*
Output(S) *Results: they should logically feed into the above objectives and be listed as follows:* *A.1.* *A.2.* *etc.* *B.1.* *B.2.* *etc.*	**Objectively Verifiable Indicators** *Targets, performance indicators, variables*	**Source Of Verification** *Means of verification, means of assessment, sources of information*	**Assumptions** *Risks*
Activities *Actions: They should be listed as follows:* *A.1.1.* *A.1.2.* *A.1.3.* *A.1.4.* *etc.*			**Pre-Conditions** *List any pre-conditions needed for project to be able to be implemented.*