The purpose of Giftedness and Talent Education: A value-based perspective

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Abstract

The purpose of this chapter is to outline a framework of values for Giftedness and Talent Education (GTE). We begin by discussing the functions of education and the issue of purpose in educating the gifted and talented. We then address the meaning of values and their role in guiding research and practice. Our discussion is centered around five pairs of fundamental values: wisdom and truth, beauty and aesthetics, compassion and cooperation, freedom and autonomy, and equity and justice. We conclude by proposing the integration of the different functions of education as a fundamental endeavor for understanding the purpose of education for the gifted and talented.

1. Introduction

Education is said to be a teleological practice (Biesta, 2010). Just as in other human activities, there is a purpose – or *telos* – underlying the act of educating. Unlike several other activities, however, purpose could be considered constitutive of education, such that the latter could not exist without the former (Biesta, 2015). The field of Giftedness and Talent Education (GTE), however, has been said to be missing a clear and shared purpose. The discipline has been described as fragmented or feudal, with a lack of a shared philosophical, theoretical and practical understanding, which has voted the field to an unresolved 'identity crisis' (Ambrose et al., 2010).

The growing number of articles on giftedness and talent shows that the field is far from stagnant (Dai et al., 2011), however, expansion, in this sense, is not to be confounded

with progression. As VanTassel-Baska (2006) pointed out, the advancement of the field depends on good thinking, no less than it depends on good methods. While sound research is undoubtedly necessary, it might prove insufficient to address the needs for relevant policies and meaningful practice. This point is particularly relevant in a time when the pressure for scientific productivity and evidence-based practices may reward an incremental and taylorist approach to knowledge, with very limited attention to theory development and ontological and epistemological debate.

In the current empiricist landscape, a great part of what constitutes the contemporary scientific dialogue occurs at an observational level of discourse that is progressively organized and reflected upon as to constitute a theoretical discourse (Overton, 2014). In this context, it is common practice not to make explicit the philosophical underpinnings that ground and guide the choice of theories and methods. However, the problems and solutions that are considered legitimate within a scientific discipline are not independent of worldviews (Kuhn, 1962).

In the case of GTE, Dai and Chen (2013) identified three major paradigms that mirror distinct worldviews. Historically, the advent of mental testing and the first intelligence scales allowed for what may be considered the beginning of the scientific approach to giftedness and talent and, consequently, the emergence of the first clear-cut paradigm. Terman's (1925) studies of the gifted are perhaps one of the highest expressions of this period, in which high abilities were conceived as an intrinsic and stable characteristic. Those who possessed this 'gift' were expected to perform at the highest levels of achievement and to make significant contributions for society and culture. Despite the fact that intelligence test scores reflected continuous, quantitative differences in human intellectual ability, the gifted were portrayed as a qualitatively different group, with unique attributes and development trajectories. During this period, construct and measures were overlapping, since intelligence was, put simply, what tests tested (Boring, 1923).

The growing dissatisfaction with conventional definitions of high intellectual ability and the fact that many gifted and talented individuals escaped identification led to the emergence of a novel scientific paradigm. In the late 70's, Renzulli (1978) proposed a redefinition of giftedness emphasizing the role of non-intellective factors and seeking to encompass productive manifestations, beyond academic ability. Today one of the most widely accepted and reproduced in the field, Renzulli's definition was first met with great controversy (Renzulli, 1999). The Three Ring Conception was fundamentally incompatible with the prevailing philosophical system and could not be assimilated by the existing paradigm. The developments that followed in the field of intelligence (e.g., Carroll, 1993; Gardner, 1983; Sternerg, 1984) and gifted education (e.g., Gagné, 1985; Mönks, 1992; Tannenbaun, 1986) led to a new perspective that was multidimensional, developmental and non-deterministic.

With the growing diversity of learners in most classrooms also came the need to address issues of equity and justice. The differentiation paradigm (Dai & Chen, 2013) sought to assure that learning environments were safe and challenging to all learners and, ultimately, aspired to develop each student's full potential (Tomlinson, 1999; 2005). Under the differentiation paradigm, identification as a way of establishing "being" gifted is of less importance. The focus here was on contextual and immediate decision-making towards the needs of each student in a given learning situation (Watts-Taffe et al., 2012).

The three paradigms of GTE coalesce from different perspectives on how to answer questions such as "what is giftedness/talent", "who is to be defined as such", "how does one develop as such" and "what answers should we provide for their education". To a certain extent, these paradigms do not attribute the same level of importance to the questions they propose to answer. The first scientific phase in GTE provides responses that are essentially 'material' and 'formal', from an Aristotelian perspective (Aristotle, ca. 350 B.C.E./1994). In other words, GTE is explained and justified for the intrinsic attributes of those who are identified as gifted and talented. From this perspective, GTE exists because there are those whose essence is qualitatively and fundamentally different. The second and third paradigms mostly build on the 'efficient' causes, that is, the range of external forces driving talent development and behavior change, which matter to the extent that we ought to provide the means for an effective or evidence-based intervention.

The fourth, and perhaps most elusive, level of explanation is that of the final cause. That is, according to Aristotle, the sake of which something is done. The question that – we argue – has been perennially overlooked, is that of the purpose of GTE: what is gifted and talent education for and what is the purpose of working with and working for the gifted and talented? In this chapter, we address the purpose of education from the perspective of the core values that guide research and intervention with the gifted and talent.

2. What are values

According to Biesta (2015), the purpose of education has to be framed in relation with its functions of qualification, socialization and subjectification. Put simply, educating is

an act of transmitting knowledge, skills and dispositions (Qualification), but also of initiating younger generations in ways of being and doing (Socialization) and transforming students as persons (Subjectification). Although most of what is thought and said about education is based on the qualification function, the three functions cannot be genuinely separated. For instance, in a math class where being curious and inquiring further is discouraged, beyond the knowledge dimension of math learning (Qualification), the classroom context is tacitly reproducing a broader social principle of anti-intellectualism (Socialization). This example illustrates what is described in the literature as the hidden curriculum, which shows that, formally or informally, consciously or unconsciously, schools make assertions about what is good or bad, desirable or undesirable, that is, they transmit values (Halstead & Xiao, 2010).

Broadly defined, values are conceptions of the desirable (Kluckhorn, 1951). They are general scripts indicating what is to be sought after and what is to be avoided and, from that perspective, they can explicitly or implicitly frame and guide behavior (Oyserman, 2015). Despite their fundamental role in human psychology, values are often disregarded on the grounds that they are too subjective or difficult to measure (Hitlin & Piliavin, 2004). Conceptually, some difficulty exists in differentiating it from neighboring constructs, such as, interests, preferences, attitudes or needs. In this case, we take on Halstead and Taylor's (1996) definition on values as principles, fundamental convictions, ideals, standards or life stances, which act as general guides to behavior and decision making. To the extent that research, assessment and intervention in GTE is based on values that are usually implicit, we propose a framework of core values that we believe should be made explicit and reflected upon by those who work with gifted and talented children and youth. This framework is based on a review of intrinsic values by Frankena (1963) which summarizes some of the most universal values, across different theoretical propositions. In this chapter, we focus specifically on five pairs of values which relate to key issues of research and intervention in GTE. Although this list is not meant to be exhaustive, it hopes to provide a valuable framework for reflection and debate.

3. Values in gifted education

Reflecting on the core values of GTE is the first step to intervention. As Zhang and Luo (2016) recommend, it is crucial to unveil the hidden curriculum of an intervention, that is, the entrenched values and perspectives that are unwritten, unofficial and even unintended. Indeed, a critical culture of education begins by examining the

assumptions that influence its general semantics. The ideas and myths about 'difficulty', 'deficiency' and 'efficiency' are still embedded in our culture (Ferri, 2016) as well as pre-existing assumptions and expectations that diminish equity (Zhao & Luo, 2016). Although it is an ethical duty to consider individual differences with respect, from a perspective of an unequal equality (OPP, 2011), education is still very far from this noble goal. In order to be truly transformative, educational practice must become a combination of systemic and individually centred practices (Corcoran, 2017) and understand the inequalities and critically examine the practices that continue to create ways to stop the core of exclusion (Waitoller & Thorius, 2015). This is even more urgent when a significant part of the research on giftedness and talent addresses an important ethical dilemma: socioeconomic inequality (e.g., Ambrose, 2019).

Revealing the values that underlie GTE assumes a particular relevance because it determines the trajectory of all educational interventions and questions what really matters. Moreover, the core of this re-examination lies in the principles of the universal goal of inclusive education, attitudes and practices that include equity, effectiveness and efficiency, through accessible educational opportunities for learners, families, educational professionals, community representatives and decision-makers (EASNIE, 2015). The implementation of these values needs a paradigm shift and implies a change of ideals and policies at the level of learning, community, identity and belonging (Thomas, 2013). Sahlberg (2014) claims that the global educational reforms based on the principles of competition, standardization and accountability of educators have led to a lack of equity, responsibility and cooperation. Claiborne (2014) asserts that the main barrier to inclusion is the prevailing policy that reveals a subjective attitude related to competence and inclusive education, based on an essentialist and nativist discourse of difference around personal ability. That is why education in general, and GTE in particular, needs to analyse the values that inspire the interventions and change perspective.

Addressing GTE is a societal function that adds a further understanding to the social causality of education (Persson, 2014). However, more than a societal, social, developmental, educational and political concern, the study and intervention of giftedness is an ethical issue. Every child has the right to education and every society must fulfil his/her need to be stimulated. Inclusion is, in fact, a moral and ethical duty, and, even more, a categorical imperative. As Biesta (2009) asserts, inclusion is the main purpose of democracy but at the same time one of its main problems. Maintaining democracy requires not only achieving legislative and practical fairness, but also maintaining the perception of fairness and the awareness of the democratic erosion in

the education of the highly able (Persson, 2014). Worldwide, educational policies advocate inclusion and defend every child's right to have their needs met by educational systems worldwide for their own sake.

The purpose of GTE is undoubtedly embedded in values. In spite of the different beliefs underlying educational models and the focus they give to efficiencies or to ends (e.g., Peters, 2020), they share a series of values that create a climate of acceptance of the uniqueness of each person, in a culture of respect, security and trust (Patrick et al., 2005).

3.1. Wisdom and Truth

Wisdom has been discussed as the ideal of human knowledge (Staudinger, 2008) and a strength of character (e.g., Park & Peterson, 2006). Both wisdom and the drive for truthfulness have been considered important features of giftedness. Sternberg (2003) acknowledged wisdom as distinct components of giftedness, conceptually similar to intelligence and creativity. Wisdom implies balancing intrapersonal and interpersonal interests and, above all, employing creative, analytical, and practical skills for a common good (Sternberg, 2010). Moreover, wisdom has been considered a feature of human thought of crucial importance in the last two decades, due to the complexity of the times we live in and the evolution of technological developments (e.g., Ambrose, 2019). Biesta (2012) emphasises the importance of wisdom when referring to it as a quality that permeates and characterises the whole person and rejecting the assumption that it is a mere skill or competence. For Grossmann (2017), wisdom involves intellectual humility, appreciation of broader perspectives, conciliation between different points of view and sensitivity to change, features which are present in giftedness. Wisdom is thus a significant ethical value of gifted education. However, Ambrose (2019) questions that we do not address wisdom as a true goal of GTE due to the discrepancy between ethical thought and action and the fact that general education does not address the needs of the gifted. That is why values and ethics should be considered with respect to giftedness and talent.

According to Staudinger (2008), wisdom has been described as the search for the moderate course between extremes, a dynamic between knowledge and doubt, a sufficient detachment from the problem at hand, and a well-balanced coordination of emotion, motivation, and thought. In this sense, wisdom is a value associated to comprehensive knowledge, clarity and truth and implies a reality-seeking orientation. Wisdom pertains to the deep understanding and knowledge on a subject, whereas truth

refers to the accordance of that knowledge with facts or reality. The drive for truthfulness and a strong sense of right and wrong are relevant features of giftedness and, thus, an important value of GTE. Seeking the truth by exploring, pushing, and testing the bounds of knowledge should be the goal of everyone.

One way to seek truth is through critical thinking. According to Loes et al. (2012), critical thinking is the ability to engage in complex modes of thinking when encountering challenges to the current mode. This ability pertains to intellectual, affective and social domains of development and requires open mindedness and the pursuit of knowledge and truth from an unbiased perspective, in order to gain a better understanding of the real nature of everything. Elder and Paul (2013) note that critical thinkers have a clear purpose and question. They question information, conclusions, and points of view and strive to be accurate, precise, and relevant, Critical thinkers engage in alternative and opposing viewpoints in order to understand them, displaying intellectual empathy; distinguish what they know from what they do not know, revealing intellectual humility; think for themselves while adhering to rigorous standards for thought, showing intellectual autonomy, and are moved by any reasoning that is better than their own, thus demonstrating confidence in reason (e.g., Elder & Paul, 2013). Attitudes of critical thinkers include willingness to plan, flexibility, persistence, admitting errors and changing one's mind when evidence changes (Halpern, 2015). The intellectual virtues of critical thinkers include intellectual empathy, intellectual integrity, intellectual perseverance, intellectual courage, intellectual autonomy, faith in reason, fair-mindedness and intellectual sense of justice (Elder & Paul, 2013), all of which are features of giftedness. Including in the GTE agenda the use of critical thinking ensures that everyone with high abilities and talent may exist in the world, as Biesta (2019) advocates.

3.2. Beauty and Aesthetics

The philosophy of aesthetics is devoted to the study and theory of the experience of beauty; the psychology of aesthetics is dedicated to the study of the physiological and psychological aspects of perception and its relation to cognition and emotion. Everyone perceives and responds to beauty and such aesthetic experience comprises a complex interplay of cognitive and affective processes, assessed by different aesthetic judgements (Verhavert, 2018).

Leder and Nadal (2004) define aesthetic experience as the process of cognitively mastering artworks, which is accompanied by a continuous upgrading of affective

states that results in emotion. Aesthetic experiences are complex, integrate beauty, specialness and impressiveness and lead to a gradual development and change. Different objects trigger different aesthetic impressions, judgments and experiences (Leder & Nadal, 2004). This variety of experiences is present in art.

Arts involve the use of different languages that enable a comprehensive reading of reality, the representation of ideas and the formation of concepts (e.g., Löwgren & Stolterman, 2005). They provide cognitive flexibility and creativity that optimize learning and performance (Stad et al., 2018). Due to their nature, all arts enhance the way we attend to details, observe, visualize, imagine and surprise (Eisner, 2008). Likewise, arts influence autonomy, perseverance, awareness and emotional control and are a form of constant re-meaning and reflection, contemplation and fruition, construction, discovery and extrapolation, and also of sharing and confrontation that require personal change and production and creation as a reflection of identity and emotional involvement. They are ways of facing challenges and facing the new and going beyond renewal, transformation and hope (Zhao, 2014) because the limits of language are not the limits of cognition (Eisner, 2008). The observation, exploration and experimentation that arts enable are ways of giving meaning to the causal structure of the world around us (Gopnik & Wellman, 2012), amplifying the uniqueness of each person.

Biesta (2019) considers art a dialogue of human beings with the world, in the sense that art is the exploration and transformation of desires that allows people to exist in the world in grown-up ways. That is why art education cannot be seen as a mere instrument for the production of outcomes valued by the dominant marketeering view of excellence as merit and performance. Moreover, Biesta (2019) also alerts that the educative potential of the arts does not lie on providing opportunities for the expression of voice, creativity, and identity per se. The opportunities for representing the linguistic, visual and plastic knowledge that arts provide enable a co-creation of personal universes that enriches development at any age in a holistic way (Eisner, 2008). Art education is much more than an instrumental and expressive means. It needs to take the task of existence in and with the world seriously because of its unique possibilities (Biesta, 2019). Every form of art is an innovative proposal of transformation and change that addresses the much-desired global development of the future knowledgebuilding citizens. Research shows how arts and culture enable a more comprehensive reading of reality, as well as the representation of ideas and the formation of concepts that solidify learning and promote critical and creative thinking in a global and paradoxically fractured world. They are a way of encoding and decoding languages and images and internalizing concepts through action and interaction.

If art education is so important for the holistic development of all children and adolescents, why is it not included to a larger extent in GTE? There are multiple answers, but the main reason resides in the prevailing view of STEM education. Proficiency in the fields of science, technology, engineering, and mathematics (STEM) is what business leaders call for (Wilson, 2018). That is why the importance of STEM domains still prevails in educational systems and GTE. If arts are called upon, it is mainly because they enhance STEM skills and performance. As Biesta (2019) critically asserts, studies on the relationship between STEM disciplines and arts are one sided. They seek to show how arts improve scientific skills, but seldom capture the way chemistry, physics or mathematics improves painting, drama or music. That is, research on the impact of art is used primarily to show how it can teach another discipline and has undoubtedly demonstrated achievement gain, particularly for low-performing students (e.g., Wilson, 2018).

Controversially, business leaders also acknowledge that greater creativity and deep thinking are important and that is why some researchers have introduced arts in this paradigm and refer to STEAM competences and how they have an increasing significance for the gifted population of students, due to their ability to make connections across disciplines (Anderson, 2014). It is important to address the deep learning that can occur when instruction integrates the arts and STEM fields with meaningful content. This integration has been conceptualized through different approaches, from the one in which content areas are taught independent of each other or some connections being apparent to a deeper and broader combination (Wilson, 2018). In the past years, there have been some voices in the field of GTE proposing that education for the arts encourages the establishment of a creative climate that, in turn, allows support for the expression of ideas, the perception of individual and collective potential, interest in learning, autonomy and the stimulation of the production of ideas (Fleith & Alencar, 2005).

Merging arts into education in a broader sense is not only significant for high ability students. Orchestrating education implies being in tune with what students think and feel (Thomas, 2013) and arts facilitate this tuning. The different sensorial, perceptual and cognitive registers influence the representation and appropriation of knowledge and, in this sense, its diversified use ensures that all students benefit from instruction. Learning to realize the art in dance, painting, performative arts or history, mathematics or science requires the ability to think like an artist. This artistic learning process allows students to add depth to understanding, creativity, and innovation through interpretive decision-making and abstract reasoning (Haroutounian, 2017). In fact, images in

general, whether visual, auditory, tactile or kinesthetic, promote the discovery and learning of concepts (Moss et al., 2007). The ability to understand a qualitative world with aesthetic sensitivity is a fundamental need that should be included in education, so that students may enjoy the challenge of exploring their full potential in the arts (e.g., Haroutounian, 2017). Moreover, it also develops wisdom and critical thinking skills and, consequently, capacities of judgment, skepticism, originality, sensitive interpretations, rationality, engagement with knowledge and self-reflexivity.

Arts and culture have a constructive impact at various levels of human development. Biesta (2019) claims that they have a unique educative power. Appreciation of beauty and aesthetic reasoning have a transformative power in engaging life. That is why there is an enormous value in having every child in every classroom to think like an artist (Haroutounian, 2017).

3.3. Compassion and Cooperation

As Biesta (2019) advocates, the ultimate goal of education is not educating someone, but arising in another human being the desire to want to exist in and with the world as subject. This requires not simply doing what one wants to, but instead analysing and measuring such desires and bringing them into dialogue with the world and with what offers resistance to them. Compassion and cooperation seem to be the values that underlie this goal.

According to Liang et al. (2017), compassion is a form of social justice, that is, an action designed to change societal values, policies, practices, and structures. In educational settings, compassion is a quality that aims to nurture, look after, teach, guide, mentor, sooth, protect, and offer feelings of acceptance and belonging (Gilbert, 2019). Compassion-based approaches offer a potential means of generating a greater psychological well-being for students, staff, parents and the wider community (Welford, & Langmead, 2015), which is an important feature when we think of GTE.

Compassion and caring are the foundation for all the values and therefore compassion is considered a cultural value with a humane orientation, alongside altruism and kindness. It is the expression of care, empathy and concern for others' physical and emotional well-being (Liang et al., 2017). In this sense, compassion provides a moral impulse towards someone else's well-being. Being compassionate is being genuinely concerned about the other person and his/her needs and thinking and feeling from the other person's perspective. However, compassion goes beyond the attributes and emotional states of empathy or love. It not only refers to the sensitivity to suffering but has an important component, which is the motivation to alleviate suffering (Welford & Langmead, 2015).

The emotion of compassion is entwined to altruistic action and is in some way associated to empathy, the capacity to recognize the suffering of another in order to feel compassion (DeSteno, 2015). Welford and Langmead (2015) emphasise that compassion involves two elements: the capacity to be emotionally moved by one's own or someone else's suffering and taking action. This action may be expressed through physical support, the provision of needs, taking responsibility, showing patience or even maintaining an open mind. A compassionate frame of mind engages in behaviours and attitudes of sensitivity, sympathy, empathy, distress tolerance, care for well-being and non-judgement. Another important component of compassion is the awareness of the impact of shame and self-criticism on others and oneself.

An important view on compassion is given by Zembylas (2013). There is a growing concern in the way compassion is used in education. Compassion may be associated to pity, the feeling that denotes an empathetic identification with the sufferer considered an innocent victim of fate or injustice. Some compassionate practices associated to pity attend to the needs of vulnerable people lacking in some or many virtues and, thus, such approach may enhance inequalities. However, compassion does not necessarily require innocence. Zembylas (2013) reminds us that compassion is not pity because it is accompanied by action. Pity requires an object, whereas compassion requires a subject. This paradigm shift makes all difference in addressing education. Zembylas (2013) proposes a critical pedagogy of compassion that may question the trappings of narratives of pity and cultivates critical compassion, thus making a tangible difference in the lives of those who suffer.

The shift towards taking action in compassion education leads to the emergence of the value of cooperation. Compassion can function as a driving force for building cooperation (DeSteno, 2015). It means doing and doing together (Kudryavtsev, 2011). Cooperation occurs when working together with others to accomplish shared goals and implies interdependence, intergenerational collaboration, accountability, debating and sharing ideas and a place for difference (Patrick et al., 2005). In cooperative situations, people seek outcomes that are beneficial to themselves and beneficial to all other group members.

Cooperative learning covers a range of group-based learning approaches and creates an environment in which students can practice, gain, and improve soft skills, such as leadership, communication, social, and conflict resolution skills. In other words, cooperation involves coordinating perspectives, resolving conflicts, building multiple representations, experimenting and applying knowledge, internalizing social processes, transforming, appropriating, mediating and building a shared meaning (e.g., Slavin, 2014).

Cooperative learning is the instructional use of small groups in which students work together to maximize their own and each other's learning and is usually contrasted with competitive and individualistic learning (e.g., Slavin, 2014). Nevertheless, not all groups are cooperative. To reach the full potential of the group, there must be a positive interdependence, individual and group accountability, interaction, appropriate use of social skills and group processing (Johnson, 2003). Learning contents must be structured cooperatively and tailored to the unique instructional needs. Another important ingredient of a successful cooperative learning environment is the awareness of the problems some students may have in working together, allied to an adequate intervention (Johnson, 2003). Research on cooperative learning environments has shown a great impact in students' autonomy at work, perseverance, creativity, emotional awareness, interdependence and interpersonal skills (Huss, 2006).

Notwithstanding the advantages of cooperation for the well-being of people and societies in general, the world has witnessed a remarkable decrease in the levels of cooperative behaviour and an increase in competitive behaviour on a global scale (García et al., 2015). Literature on giftedness and excellence has associated concepts such as quality, success, performance, meritocracy and competition, as opposed to cooperation, inclusion and equity. Cooperation, differentiation and responsibility are scarcely present in today's society that emphasises preventing risk-taking and focusing on broader educational goals (e.g., Sahlberg, 2014). Competitiveness contradicts the effective need for global cooperation (e.g., Trilling & Fadel, 2009). The excessive presence of comparison and competition, the constant search for classification and hierarchy, the emphasis on capacity as a determinant for the educational experience create alienation and exclusion (Sahlberg, 2014). The disproportionate investment in science and technology, considered to be more profitable than the arts and humanities (e.g., Wilson, 2018), has worked against participation (Kearney, 2011) and ultimately cooperation.

Fortunately, a new model of open and social innovation has gained a new focus in world policies and has revealed an ethics of collaboration in the service of co-creation, peer- and co-production more adequate to the challenges we face (Peters, 2020). Such approaches are important references in GTE that has historically been misrepresented as a competitive and individualistic approach in the search of excellence.

3.4. Freedom and Autonomy

Freedom is a human right and one of the most fundamental purposes of Education. According to the Convention on the Rights of the Child (UN General Assembly, 1989) all children have the right to freedom of thought, expression and action. Promoting freedom trough education is, however, a complex task. It entails allowing students to be and do what they value, facilitating good judgement and informed decision making (Bessant, 2014); it means encouraging them to become independent and autonomous, to make their own judgments and draw their own conclusions (Biesta, 2010); and it sees emancipation as a necessary transformative process for reading the complexities of society and making sense of the world around us (Säfström, 2011).

The concept of emancipation feels particularly relevant in the so-called post-truth era. In a world of complexity and uncertainty, people seem to be paradoxically leaning towards increasingly superficial rational approaches. The digital revolution and social media democratization, in particular, are leading to a trivialization of information for fast consumption, often engineered to target emotional processing routes and algorithmically-tailored to fit pre-existing belief structures. Some of the most striking consequences include growing ideological polarization and liability to disinformation, which threaten to undermine the normal social and democratic functioning. What the post-truth dilemma seems to suggest is that a clearer separation should be sought between ideas and identity and between providing free access to information and promoting intellectual freedom.

A great metaphor for the post-truth dilemma comes from Piaget and Weil's (1951) studies of children's idea of homeland. In the stage of egocentricity, it is common for children to assert they would always choose their own nationality over others, if they were given the choice. The Swiss participants, for instance, believed people from their country to be nicer and more intelligent than others. Yet, even when confronted with the idea that a French child would also believe the French to be nicer and more intelligent, they'd still chose to be Swiss because "Switzerland is always better" (p. 577). As Paul (1984) points out, the cognitive and affective bias underlying these children's reasoning is in many ways resemblant of adult's failure to discern what's good from what's 'theirs'. When adults choose to reinforce or punish certain attitudes and beliefs they are, in some way, making affect contingent to the endorsement of a specific worldview. As belief structures become part of one's identity, their scrutiny becomes personally and emotionally threatening and, consequently, less liable to

change. From this perspective, intellectual and moral autonomy seem interdependent of affective autonomy and ego detachment.

In order to bring forth autonomy in others, educational contexts and the power relations within it must allow the necessary space for self-determination. Prescriptive, controloriented educational contexts risk neglecting inner motivations and fail in providing students the opportunity to decide by themselves what to feel, think and do (Reeve, 2016). This is particularly relevant in the field of GTE, where highly capable students seem to resent overly extrinsic teaching styles, based on student dependence and teacher directed learning (Clinkenbeard, 2012; Phillips & Lindsay, 2006). Gifted and talented students tend to react positively to classroom contexts which create space for intellectual freedom. For instance, teachers who facilitate rather than direct, who guide rather than coerce and who allow students to evaluate for themselves are valued by gifted pupils (Chan, 2011). In a review of effective teaching approaches from the perspective of gifted and talented students, Vialle and Quigley (2002) refer the ability to encourage students to be independent learners and providing student-centered learning opportunities. Active learning strategies that involve student engagement, such as problem-based learning, and challenging approaches that require higher level thinking skills are also considered desirable attributes of a positive learning environment (Vidergor & Ruth Harris, 2015).

Enrichment programs also seem to recognize gifted and talented students' need for autonomy. Several programs emphasize independent work and allowing participants to select their learning subjects and goals (Miedijensky, 2018). These programs usually encourage discovery through exploratory activities, including self-selected independent projects (Kim, 2016; Maker et al., 2015). Students recognize that, compared to the regular classroom, gifted programs tend to allow for more discussion, independent pace and autonomous work and these attributes are recognized across different intervention approaches, from pull-out to honors programs (Hertzog, 2003). The emphasis these interventions place on autonomy seem to reflect educators' recognition of the different learning styles and needs of gifted and talented students and their expectations towards these students' future role in society.

Gifted and talented students are expected to become active, productive members of society. Some of the most valuable contributions of talented artists, authors, scientists and others imply a degree of self-direction and self-realization. Intellectual autonomy is a necessary ingredient for the type of productive giftedness described by Renzulli (1978, 1999, 2004), which involves the ability to develop novel and impactful ideas or creations. It is also among the volitional catalysts that take part in the talent

development process described in Gagné's (2004, 2013) DMGT model. Motivational factors, which are key in development approaches to talent, depend on the feeling of being agent of one's actions (van Lier, 2007) because it is only when people act with full volition that they mobilize the whole of their resources, interests, and capacities (Ryan & Deci, 2017). The development of gifted and talented students' full potential, therefore, depends on the extent to which they are allowed to become effectively and genuinely autonomous and free. Creating students who are capable of intellectual and moral autonomy and respecting that autonomy in others is, in fact not just an imperative for GTE, it is a fundamental purpose of education for every person (Piaget, 1973).

3.5. Equity and Justice

There's hardly a more straining and enduring tension in the field of GTE than that between excellence and equity (Dai, 2009). One longstanding consequence of the 'gifted child' paradigm is the widespread assumption that the gifted and talented constitute a group of people which are fundamentally and inherently different from the rest. Another consequence is that these differences are often thought to be rooted in stable, genetic, and categorical grounds. Notwithstanding the paradigm changes in the field, teachers and parents of children with high abilities still oftentimes adhere to a essentialist or 'entity' concept of giftedness (Mazzoli Smith & Campbell, 2016). Misconceptions about the nature (and nurture) of giftedness and talent perpetuate fears that GTE is no more but a mean to uphold a cognitive elite, allowing disproportionate access to opportunities and resources to those who are already advantaged (Daniels et al., 1997).

Those in the field of GTE themselves seem somewhat uncertain as how to best advocate for this group of people. There is a widespread consensus that the gifted and talented have needs that are chronically unmet in most educational contexts (Robinson, 2003), however, two parallel discourses coexist on this domain. One the one hand, there is compelling evidence that the gifted and talent show adequate levels of adaptive resources, comparing favorably to the general population in measures of psychological health and wellbeing (Martin et al., 2009; Zeidner & Shani Zinovich, 2011). This point is perhaps still relevant to highlight in the present day, as it was almost one century ago, when Lewis Terman set out to discredit the myth of the 'crazed genius'. The fact that this cultural stereotype prevails until today should be a cause of concern, taking into consideration the consequences of inadequate beliefs on the negative attitudes towards students with high abilities (Bain et al., 2006; Lassig, 2015). There is, on the other hand, a second discourse that describes these students as socially, emotionally and academically vulnerable (Robinson, 2003). Some authors suggest the gifted population is more prone to issues of perfectionism, sensitivity and intensity (Rinn & Majority, 2018), which may put them at risk of adjustment problems and academic underachievement (Blaas, 2014; Kim, 2008; Landis & Reschly, 2013).

The two lines of discourse outlined above may seem contradictory or even paradoxical and the lack of integration between the two perspectives does arguably any favor to the progress in the field. Some tentative hypotheses have, however, been put forward, that suggest we look beyond the endogenous factors that are central to both perspectives to integrate development and contextual factors that promote better educational and psychosocial adjustment (Neihart, 1999). In other words, high abilities are not a risk factor in themselves, but the confluence of endogenous and exogenous factors related to high abilities may positively or negatively shape the course of development (Neihart & Yeo, 2018; Mueller & Winsor, 2018). Another key aspect is that the fact that students with high abilities show similar or even superior indices of psychosocial adjustment and academic achievement, compared to their peers, does not tell much about fairness. In fact, fairness in education is not about equal outcomes, but about equal access to opportunities.

One of the main issues in the field of GTE is that while, in essence, promoting excellence does not necessarily entail inequality, there is an enduring distrust that providing better opportunities for the highly able may constitute a form of elitism (Dai, 2009). The fundamental tenet that everyone is born 'equal in dignity and rights', in this case, obliterates the fact that everyone is also unique to many respects. As the classic quote by Kluckhohn et al. (1953) goes, each person is, in different respects, like all other people, some other people, and no other people. Human intellectual abilities, in particular, exist in a continuum, from students with learning difficulties to those with above average learning ability. Since educational provisions are tendentially tailored to the average, 'epistemic' student, those at both ends of the continuum struggle to have their needs met. With adequate support, all students should be capable of improvement and progress towards fulfilling their maximum potential, however, this notion seems to be accepted differently across the spectrum of human abilities (Cross, 2013). Those in the upper end of the continuum can be perceived as needless of special provisions based on the arguments that these students can do well by themselves or that supporting the most capable is a way of accentuating existing asymmetries. Four important points should be made to challenge this assumption.

First, research shows that a relevant number of high ability students perform below their potential, which has negative implications both for these individuals and for society (Landis & Reschly, 2013; Renzulli, 2012). Second, intervention with these students show positive results in psychosocial and academic domains, thus suggesting that many highly able students, in fact, need support and they are responsive to interventions (Snyder et al., 2019; Steenbergen-Hu et al., 2020). Third, interventions with gifted and talented students do not pose risks of accentuating educational gaps, because they are not based on claiming better education for one group in prejudice of the others. In fact, all students benefit from high-quality, differentiated education (Deunk et al., 2018; Ibrahim Magableh & Abdullah, 2020; Reis et al., 2011; Smale-Jacobse et al., 2019; Valiandes, 2015). Fourth, a growing concern exists to ensure that interventions are delivered to those who could benefit from them, based on growingly flexible criteria, deemphasizing cut-off scores in favor of more flexible and inclusive criteria and employing special care to recognize various talent areas and to include students from culturally diverse populations (Ford & Harmon, 2001; Subotnik et al., 2011).

In sum, we argue that the issues of equity and justice should be a cause of serious concern and reflection for educators. Making quality education available for all learners is a global imperative for combating societal issues of discrimination and exclusion. From this perspective, one of the main challenges for education worldwide is how to develop an educational system that is both excellent and equitable (Schleicher, 2010). Resolving this dialectic requires that we care for the inclusion of all learners across the spectrum of human abilities and revert the vicious cycle which has denied gifted and talented students an appropriate education on the basis of societies' failure in solving longstanding inequalities.

4. Reexamining the purpose of Gifted and Talent Education

There are two ways in which the purpose of GTE is commonly defined in the literature. On the one hand, there's the discourse of 'self-fulfillment' (Renzulli, 2012) or 'selfactualization' (Subotnik et al., 2011), according to which educators should seek to allow the gifted and talented to fulfill their best potential. On the other hand, perhaps more pervasively, there's the discourse of the social benefits of the outstanding achievements at their reach.

One historic example of the latter perspective is the 'Sputnik effect' in the late 50's. After the launch of the first satellite into orbit in 1957 by the soviets, fears arose that the West could be losing grip of its intellectual, scientific and economic hegemony. What came in response was an unprecedented interest and funding for studying and intervening with the brightest minds in North America (Colangelo & Wood, 2015; Ellis, 2017). The current enthusiasm for STEM education reflects a similar urgency for compensating workforce skills gaps and gaining competitive advantage on the global market (Jolly, 2009). In the context of a global crisis, such as the one triggered by the COVID-19 pandemic, excellence and innovation are called upon for overcoming current issues and talent is likely to become a top public priority, once again (Azoulay & Jones, 2020).

As the competitive advantages of nurturing intellectual capital are still one of the most frequent justifications for enrichment activities (Simonton, 2009), one has to question what happens to those who do not seek talent development in 'strategic' areas. Or, in other words, are there gifted and talented individuals that we actually do not want? The idea of indexing GTE solely with potential human capital is, to our opinion, highly pernicious. It poses a risk of marginalizing gifted and talented people based on their vocational aspirations and denying them the right of exploring other fields of human activity. This strategy may prove disadvantageous, not only because it depletes other areas of important financial and human resources, but also because it deprives gifted and talented individuals in STEM areas of important interdisciplinary learning opportunities. Great advances have been made, in the past, by crossing ideas and concepts from different disciplines. Almost 2500 years ago, it was music that inspired Pythagoras to change perspective on celestial objects, just like today space and medical sciences are finding novel and disruptive ways of solving problems by looking at origami (e.g., Rothemund, 2006). Piaget applied biological metaphors to better understand human cognitive development and many of the great innovators in science were also involved in the Arts, including Louis Pasteur, Samuel Morse, Santiago Ramón y Cajal or Leonardo Da Vinci.

Another argument against the competitive advantage discourse is that it results in an instrumental model of talent development, with little care for the personality and aspirations of the young gifted and talented, leaving them at the mercy of the fluctuating needs of the nations (Jolly, 2009). We argue that a good GTE has to care for students as persons who are part of a broader social and cultural reality. They have to be given the opportunity to learn and develop important scientific, technical and/or artistic expertise in the same extent that they are given the opportunity to consider the responsibility that comes with that knowledge and skills (Passow, 1988). Among the great possibilities and perils of our time, no good education can exist that is rooted on

knowledge without morality or contents without principles. A good education for gifted and talented students needs to reconcile the three functions of qualification, socialization and subjectification as part of a dialogue that reflects on the issues of values and purpose. That which we believe is the main challenge for the future of GTE was, in fact, more eloquently expressed more than 70 years ago by Martin Luther King Jr. (Carson et al., 1992, p. 124):

The function of education, therefore, is to teach one to think intensively and to think critically. But education which stops with efficiency may prove the greatest menace to society. The most dangerous criminal may be the man gifted with reason, but with no morals. ... We must remember that intelligence is not enough. Intelligence plus character – that is the goal of true education. The complete education gives one not only power of concentration, but worthy objectives upon which to concentrate. The broad education will, therefore, transmit to one not only the accumulated knowledge of the race but also the accumulated experience of social living.

References

- Ambrose, D., VanTassel-Baska, J., Coleman, L. J., & Cross, T. L. (2010). Unified, insular, firmly policed, or fractured, porous, contested, gifted education?. *Journal for the Education of the Gifted*, *33*(4), 453–478. https://doi.org/10.1177/016235321003300402
- Ambrose, D. (2019). Giftedness and wisdom. In R. J. Sternberg & J. Glück (Eds.), *The Cambridge handbook of wisdom* (p. 465–482). Cambridge University Press. https://doi.org/10.1017/9781108568272.022
- Anderson, L. (2014). Visual–spatial ability: Important in STEM, ignored in gifted education. *Roeper Review, 36*, 114–121. https://doi.org/10.1080/02783193.2014.884198
- Aristotle. (1994). Metaphysics (W. D. Ross, Trans.). The Internet Classics Archive. http://classics.mit.edu/Aristotle/metaphysics.html. (Original work published ca. 350 B.C.E.)
- Azoulay, P., & Jones, B. (2020). Beat COVID-19 through innovation. *Science*, *368*(6491), 553. https://doi.org/10.1126/science.abc5792

- Bain, S. K., Choate, S. M., & Bliss, S. L. (2006). Perceptions of developmental, social, and emotional issues in giftedness: Are they realistic? *Roeper Review*, 29(1), 41–48. https://doi.org/10.1080/02783190609554383
- Bessant, J. (2014). A dangerous idea? Freedom, children and the capability approach to education. *Critical Studies in Education*, 55(2), 138–153. https://doi.org/10.1080/17508487.2014.873368
- Biesta, G.J.J. (2010). A New Logic of Emancipation: The Methodology of Jacques Rancière. *Educational Theory*, *60*(1), 39–59. https://doi.org/10.1111/j.1741-5446.2009.00345.x
- Biesta, G.J.J. (2012). Giving teaching back to education. Responding to the disappearance of the teacher. *Phenomenology and Practice 6*(2), 35-49. https://doi.org/10.29173/pandpr19860
- Biesta, G.J.J. (2015). What is education for? On Good education, teacher judgement, and educational professionalism. *European Journal of Education*, *50*(1), 75–87. https://doi.org/10.1111/ejed.12109
- Biesta, G. J. J. (2010). Why "What Works" Still Won't Work: From Evidence-Based Education to Value-Based Education. *Studies in Philosophy and Education*, 29(5), 491–503. https://doi.org/10.1007/s11217-010-9191-x
- Biesta, G.J.J. (2019). What if? Art education beyond expression and creativity. In R.
 Hickman, J. Baldacchino, K. Freedman, E. Hall & N. Meager (Eds), *International Encyclopedia of Art and Design Education* (Volume 3, pp. 1-10). London/New York: Taylor & Francis. https://doi.org/10.1002/9781118978061.ead058
- Carson, C., Luker, R., & Russell, P. (1992). *The Papers of Martin Luther King, Jr. Volume I: Called to Serve, January 1929-June 1951*. University of California Press
- Claiborne, L. (2014). The potential of critical educational psychology beyond its meritocratic past. In T. Corcoran, ed., *Psychology in education: Critical theory-practice.* (pp.1-16). Sense Publishers. https://doi.org/10.1007/978-94-6209-566-3_1
- Corcoran, T. (2017). Are the kids alright? Relating to representations of youth. International Journal of Adolescence and Youth, 22(2), 151-164. https://doi.org/10.1080/02673843.2014.881296
- Chan, D. W. (2011). Characteristics and competencies of teachers of gifted learners: The Hong Kong student perspective. *Roeper Review*, *33*(3), 160–169. https://doi.org/10.1080/02783193.2011.580499

- Clinkenbeard, P. R. (2012). Motivation and gifted students: Implications of theory and research. *Psychology in the Schools*, *49*(7), 622–630. https://doi.org/10.1002/pits
- Colangelo, N., & Wood, S. M. (2015). Counseling the Gifted: Past, Present, and Future Directions. *Journal of Counseling & Development*, *93*, 133–142. https://doi.org/10.1002/j.1556-6676.2015.00189.x
- Cross, J. R. (2013). Gifted education as a vehicle for enhancing social equality. *Roeper Review*, *35*(2), 115–123. https://doi.org/10.1080/02783193.2013.766962
- Dai, D. Y. (2009). Essential Tensions Surrounding the Concept of Giftedness. In L. Shavinina (ed.) International Handbook on Giftedness (pp. 39-80). Springer. https://doi.org/10.1007/978-1-4020-6162-2_3
- Dai, D. Y., & Chen, F. (2013). Three Paradigms of Gifted Education: In Search of Conceptual Clarity in Research and Practice. *Gifted Child Quarterly*, *57*(3), 151– 168. https://doi.org/10.1177/0016986213490020
- Dai, D. Y., Swanson, J. A., & Cheng, H. (2011). State of research on giftedness and gifted education: A survey of empirical studies published during 1998-2010 (April). *Gifted Child Quarterly*, *55*(2), 126–138. https://doi.org/10.1177/0016986210397831
- Daniels, M., Devlin, B., & Roeder, K. (1997) Of Genes and IQ. In B. Devlin, S. E. Fienberg, D. P. Resnick & K. Roeder (Eds.), *Intelligence, Genes, and Success* (pp.45-70). Springer. https://doi.org/10.1007/978-1-4612-0669-9_3
- Dewey, J. (1934). Individual Psychology and Education. The Philosopher, 12(1), 1-6
- DeSteno, D. (2015). Compassion and altruism: How our minds determine who is worthy of help. *Current opinion in behavioral sciences, 3*, 80-83. https://doi.org/10.1016/j.cobeha.2015.02.002
- Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., & Bosker, R. J. (2018).
 Effective differentiation Practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education.
 Educational Research Review, 24, 31–54.
 https://doi.org/10.1016/j.edurev.2018.02.002
- EASNIE (European Agency for Special Needs and Inclusive Education). (2015).
 European hearing: Luxembourg recommendations: Inclusive education Take action! Odense: European Agency for Special Needs and Inclusive Education.

Eisner, E. (2008). What Education Can Learn from the Arts. The Lowenfeld lecture.

- Elder, L., & Paul, R. (2013). Critical thinking: intellectual standards Eessential to reasoning well within every domain of human thought. *Journal of Developmental Education, 37*(1), 32-33.
- Ellis, J. (2017). Brains Unlimited: Giftedness and Gifted Education in Canada before Sputnik (1957). *Canadian Journal of Education*, 2(40), 1–26. https://doi.org/ 10.2307/90010118
- Ferri, B. (2016). Inclusion for the 21st Century: Why We Need Disabilities Studies in Education. *Italian Journal of Special Education for Inclusion, 3*(2), 11-22.
- Fleith, D. S., & Alencar, E. M. L. S. (2005). Escala sobre o clima para criatividade em sala de aula. *Psicologia: Teoria e Pesquisa, 21,* 85-91. http://dx.doi.org/10.1590/S0102-37722005000100012
- Ford, D. Y., & Harmon, D. A. (2001). Equity and Excellence: Providing Access to Gifted Education for Culturally Diverse Students. *The Journal of Secondary Gifted Education*, 12(3), 141–147. https://doi.org/10.4219/jsge-2001-663
- Frankena, W. K. (1963). *Ethics* (2nd ed.). Prentice-Hall.
- Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, *15*(2), 119–147. https://doi.org/10.1080/1359813042000314682
- Gagné, F. (2013). The DMGT: Changes Within, Beneath, and Beyond. *Talent Development and Excellence*, *5*(1), 5–19.
- Gagné, F. (1985) Giftedness and talent: reexamining a reexamination of the definitions. Gifted Child Quarterly, 29, 103–112. https://doi.org/10.1177/001698628502900302
- García, C., Rivera, N., & Greenfield, P. M. (2015). The decline of cooperation, the rise of competition: developmental effects of long-term social change in Mexico. *International Journal of Psychology, 50*(1), 6-11. https://doi.org/10.1002/ijop.12120
- Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. Basic Books.
- Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, *53*(1), 6-41. https://doi.org/10.1111/bjc.12043
- Gopnik, A., & Wellman, H. M. (2012). Reconstructing constructivism: Causal models, Bayesian learning mechanisms, and the theory. *Psychological Bulletin*, *138*(6),1085-1108. https://doi.org/ 10.1037/a0028044

Grossmann, I. (2017). Wisdom in context. Perspectives on Psychological Science,

12(2), 233-257. https://doi.org/10.1177/1745691616672066

- Halpern, D. F. (2013). *Thought and knowledge: An introduction to critical thinking.* (5th ed.) Psychology Press. ISBN-13: 978-1848726291
- Halstead, J. M., & Taylor, M. J. (1996). *Values and values education in schools*. Falmer Press, Taylor & Francis.
- Halstead, M., & Xiao, J. (2010). International Research Handbook on Values Education and Student Wellbeing. International Research Handbook on Values Education and Student Wellbeing, 303–317. https://doi.org/10.1007/978-90-481-8675-4
- Haroutounian, J. (2017). Artistic Ways of Knowing in Gifted Education: Encouraging Every Student to Think Like an Artist. *Roeper Review 39*(1), 44-58. https://doi.org/10.1080/02783193.2016.1247397
- Hertzog, N. B. (2003). Impact of gifted programs from the students' perspectives. *Gifted Child Quarterly*, *47*(2), 131–142. https://doi.org/10.1177/001698620304700204
- Hitlin, S., & Piliavin, J. A. (2004). Values: Reviving a dormant concept. *Annual Review of Sociology*, *30*, 359–393. https://doi.org/10.1146/annurev.soc.30.012703.110640
- Huss, J. A. (2006). Gifted Education and Cooperative Learning: A Miss or a Match? *Gifted Child Today, 29*(4), 19-23. https://doi.org/10.4219/gct-2006-13
- Ibrahim Magableh, I. S., & Abdullah, A. (2020). Effectiveness of differentiated instruction on primary school students' English reading comprehension achievement. *International Journal of Learning, Teaching and Educational Research*, 19(3), 20–35. https://doi.org/10.26803/ijlter.19.3.2
- Jolly, J. L. (2009). The National Defense Education Act, Current STEM Initiative, and the Gifted. *Gifted Child Today*, *3*2(2), 50–53.

https://doi.org/10.1080/08832323.1958.10116119

- Johnson, D. W. (2003). Social interdependence: The interrelationships among theory, research, and practice. *American Psychologist, 58*(11), 931-945. https://doi.org/ 10.1891/9780826133236.0003
- Kearney, A. (2011). *Exclusion from and within school: Issues and solutions.* Sense Publishers.
- Kim, M. (2016). A Meta-Analysis of the Effects of Enrichment Programs on Gifted Students. *Gifted Child Quarterly*, 60(2), 102–116. https://doi.org/10.1177/0016986216630607

- Kluckhorn, C. (1951). Values and value orientations in the theory of action. In T.
 Parsons & E. Shils (Eds.), *Toward a General Theory of Action* (pp. 388-433).
 Harvard University Press. http://dx.doi.org/10.4159/harvard.9780674863507.c8
- Kluckhohn, C., Murray, H. A., & Schneider, D. M. (1953). *Personality in nature, society, and culture*. Knopf.
- Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*. The University of Chicago Press.
- Landis, R. N., & Reschly, A. L. (2013). Reexamining gifted underachievement and dropout through the lens of student engagement. *Journal for the Education of the Gifted*, *36*(2), 220–249. https://doi.org/10.1177/0162353213480864
- Lassig, C. (2015). Teachers' attitudes towards the gifted: The importance of professional development and school culture. *Australasian Journal of Gifted Education*, *24*(2), 6–16. https://doi.org/10.21505/ajge.2015.0012
- Leder, H., & Nadal, M. (2014). Ten years of a model of aesthetic appreciation and aesthetic judgments: The aesthetic episode – Developments and challenges in empirical aesthetics. *British Journal of Psychology, 105,* 443–464. https://doi.org/10.1111/bjop.12084
- Liang, B., Chung, A., Diamonti, A. J., Douyon, C. M., Gordon, J. R., Joyner, E. D., ... & Wilson, E. S. (2017). Ethical social justice: Do the ends justify the means?. *Journal of Community & Applied Social Psychology, 27*(4), 298-311.
 https://doi.org/10.1002/casp.2323
- Loes, C., Pascarella, E., & Umbach, P. (2012). Effects of diversity experiences on critical thinking skills: Who benefits?. *The Journal of Higher Education*, 83(1), 1-25. https://doi.org/10.1353/jhe.2012.0001
- Löwgren, J. & Stolterman, E. (2005). *Thoughtful interaction design: a design perspective on information technology.* The MIT Press.
- Maker, J., Zimmerman, R., Alhusaini, A., & Pease, R. (2015). Real Engagement in Active Problem Solving (REAPS): An evidence-based model that meets content, process, product, and learning environment principles recommended for gifted students. *Apex*, *19*(1), 1–24. https://doi.org/10.21307/apex-2015-006
- Mazzoli Smith, L., & Campbell, R. J. (2016). So-called giftedness and teacher education: Issues of equity and inclusion. *Teachers and Teaching: Theory and Practice*, 22(2), 255–267. https://doi.org/10.1080/13540602.2015.1055448

- Miedijensky, S. (2018). Learning environment for the gifted What do outstanding teachers of the gifted think? *Gifted Education International*, *34*(3), 222–244. https://doi.org/10.1177/0261429417754204
- Moss, J., Hay, T., Deppeler, J., Astley, L., & Pattison, K. (2007). Student researchers in the middle: using visual images to make sense of inclusive education, Special Issue: International Images of Inclusion. Journal of Research in Special Education Needs, 7(1). 46-54. https://doi.org/10.1111/j.1471-3802.2007.00080.x
- OPP. (2011). Código deontológico da Ordem dos Psicólogos Portugueses. Lisboa: Ordem dos Psicólogos Portugueses.
- Mönks, F. J. (1992). Development of gifted children: The issue of identification and programming. In F. J. Mönks & W. A. M. Peters (Eds.), *Talent for the future* (pp. 191–202). Proceedings of the Ninth World Conference on Gifted and Talented Children. Van Gorcum.
- Mueller, C. E., & Winsor, D. L. (2018). Depression, Suicide, and Giftedness:
 Disentangling Risk Factors, Protective Factors, and Implications for Optimal
 Growth. In S. Pfeiffer (Ed.), Handbook of Giftedness in Children (pp. 255-284).
 Springer. https://doi.org/10.1007/978-3-319-77004-8_15
- Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review*, *22*(1), 10–17. https://doi.org/10.1080/02783199909553991
- Neihart, M., & Yeo, L. S. (2018). Psychological issues unique to the gifted student. In S. I. Pfeiffer, E. Shaunessy-Dedrick, & M. Foley-Nicpon (Eds.), APA handbooks in psychology. APA handbook of giftedness and talent (p. 497–510). American Psychological Association. https://doi.org/10.1037/0000038-032
- Overton, W. F. (2014). Evolving Scientific Paradigms: Retrospective and Prospective. In L. L'Abate (Ed.), *Paradigms in Theory Construction* (pp. 31–66). Springer Science+Business Media. https://doi.org/10.1007/978-1-4614-0914-4
- Oyserman, D. (2015). Psychology of Values. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed., pp. 36–40). Elsevier. https://doi.org/http://dx.doi.org/10.1016/B978-0-08-097086-8.24030-0
- Passow, A. H. (1988). Educating gifted persons who are caring and concerned. *Roeper Review*, *11*(1), 13–15. https://doi.org/10.1080/02783198809553152
- Patrick, H., Bangel, N. J., Jeon, K., & Townsend, M. R. (2005). Reconsidering the Issue of Cooperative Learning With Gifted Students. *Journal for the Education of the*

Gifted, 29(1) 90-108. https://doi.org/10.1177/016235320502900105

- Persson, R. S. (2014). The needs of the highly able and the needs of society: A multidisciplinary analysis of talent differentiation and its significance to gifted education and issues of societal inequality. *Roeper Review*, 36(1), 43-59. https://doi.org/10.1080/02783193.2013.856830
- Peters, M. A. (2020) An educational theory of innovation: What constitutes the educational good?, *Educational Philosophy and Theory*, *52*(10), 1016-1022. https://doi.org/10.1080/00131857.2019.1699992
- Phillips, N., & Lindsay, G. (2006). Motivation in gifted students. *High Ability Studies*, *17*(1), 57–73. https://doi.org/10.1080/13598130600947119
- Piaget, J. (1973). *To Understand is to invent: The future of education.* Grossman Publishers.
- Piaget, J., & Weil, A.-M. (1951). The Development in Children of the Idea of the Homeland and of Relations with other Countries. UNESCO International Social Science Bulletin, III(3), 561–578.
- Reeve, J. (2016). Autonomy-Supportive Teaching: What It Is, How to Do It. In *Building Autonomous Learners* (pp. 129–152). https://doi.org/10.1007/978-981-287-630-0
- Reis, S. M., McCoach, D. B., Little, C. A., Muller, L. M., & Kaniskan, R. B. (2011). The effects of differentiated instruction and enrichment pedagogy on reading achievement in five elementary schools. *American Educational Research Journal*, 48(2), 462–501. https://doi.org/10.3102/0002831210382891
- Renzulli, J. S. (1978). What Makes Giftedness? Phi Delta Kappan, 60(3), 180-184.
- Renzulli, J. S. (1999). What is this thing called giftedness, and how do we develop it? A twenty-five year perspective. *Journal for the Education of the Gifted*, 23(1), 3–54. https://doi.org/10.1177/016235329902300102
- Renzulli, J. S. (2004). Identification of students for gifted and talented programs. In J.
 S. Renzulli (Ed.), *Identification of Students for Gifted and Talented Programs (Vol. 2)* (pp. xxiii– xxxiv). Corwin Press.
- Renzulli, J. S. (2012). Reexamining the Role of Gifted Education and Talent Development for the 21st Century: A Four-Part Theoretical Approach. *Gifted Child Quarterly*, *56*(3), 150–159. https://doi.org/10.1177/0016986212444901
- Rinn A.N., Majority K.L. (2018) The Social and Emotional World of the Gifted. In S. Pfeiffer (ed.) *Handbook of Giftedness in Children*. Springer.

https://doi.org/10.1007/978-3-319-77004-8_4

- Robinson, N. M. (2003). Two Wrongs Do Not Make a Right: Sacrificing the Needs of Gifted Students Does Not Solve Society's Unsolved Problems. *Journal for the Education of the Gifted*, *26*(4), 251–273. https://doi.org/10.4219/jeg-2003-307
- Rothemund, P. W. K. (2006). Folding DNA to create nanoscale shapes and patterns. *Nature*, *440*(7082), 297–302. https://doi.org/10.1038/nature04586
- Ryan, R. M., & Deci, E. L. (2017). Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness. Guilford Press. https://doi.org/10.1016/S0278-5846(03)00119-2
- Sahlberg, P. (2014). Finnish lessons 2.0: What can the world learn from educational change in Finland?. Teachers College Press.
- Säfström, C. A. (2011). Rethinking Emancipation, Rethinking Education. *Studies in Philosophy and Education*, *30*(2), 199–209. https://doi.org/10.1007/s11217-011-9227-x
- Schleicher A. (2010) International Comparisons of Student Learning Outcomes. In A.
 Hargreaves, A. Lieberman, M. Fullan, & D. Hopkins (Eds.), Second International Handbook of Educational Change. Springer International Handbooks of Education, vol 23. Springer. https://doi.org/10.1007/978-90-481-2660-6_29
- Simonton, D. K. (2009). Gifts, Talents, and Their Societal Repercussions. In L. Shavinina (ed.) *International Handbook on Giftedness* (pp. 905-912). Springer. https://doi.org/10.1007/978-1-4020-6162-2_45
- Slavin, R. E. (2014). Make cooperative learning powerful: Five essential strategies to make cooperative learning effective. *Educational Leadership*, *7*2(2), 22-26.
- Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M., & Maulana, R. (2019).
 Differentiated Instruction in Secondary Education: A Systematic Review of Research Evidence. *Frontiers in Psychology*, *10*, 1–23. https://doi.org/10.3389/fpsyg.2019.02366
- Snyder, K. E., Fong, C. J., Painter, J. K., Pittard, C. M., Barr, S. M., & Patall, E. A. (2019). Interventions for academically underachieving students: A systematic review and meta-analysis. *Educational Research Review*, 28, 1–22. https://doi.org/10.1016/j.edurev.2019.100294
- Stad F. E., Heijningen C. J. M. V., Wiedl K. H., & Resing W. C. M. (2018). Predicting school achievement: differential effects of dynamic testing measures and cognitive

flexibility for math performance. Learning and Individual Differences, 67, 117–125. https://doi.org/10.1016/j.lindif.2018.07.006

- Staudinger, U. M. (2008). A psychology of wisdom: History and recent developments. *Research in Human Development, 5*(2), 107-120. https://doi.org/10.1080/15427600802034835
- Steenbergen-Hu, S., Olszewski-Kubilius, P., & Calvert, E. (2020). The Effectiveness of Current Interventions to Reverse the Underachievement of Gifted Students: Findings of a Meta-Analysis and Systematic Review. *Gifted Child Quarterly*, *64*(2), 132–165. https://doi.org/10.1177/0016986220908601
- Sternberg, R. J. (1984). Toward a triarchic theory of human intelligence. *Behavioral* and Brain Sciences, 7, 269–287. https://doi.org/10.1017/S0140525X00044629
- Sternberg, R. J. (2003). WICS as a model of giftedness. *High Ability Studies, 14,* 109-137. https://doi.org/10.1080/1359813032000163807
- Sternberg, R. J. (2010). Assessment of gifted students for identification purposes: New techniques for a new millennium. *Learning and Individual Differences*, 20(4), 327– 336. https://doi.org/10.1016/j.lindif.2009.08.003
- Subotnik, R. F., Olszewski-kubilius, P., & Worrell, F. C. (2011). Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science. *Psychological Science in the Public Interest*, *12*(1), 3–54. https://doi.org/10.1177/1529100611418056
- Thomas, G. (2013). A review of thinking and research about inclusive education policy, with suggestions for a new kind of inclusive thinking. *British Educational Research Journal*, *39*(3), 473-490. https://doi.org/10.1080/01411926.2011.652070
- Tomlinson, C. A. (2005) Grading and Differentiation: Paradox or Good Practice?. *Theory Into Practice, 44*(3), 262-269. https://doi.org/10.1207/s15430421tip4403_11
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Association for Supervision & Curriculum Development.
- Trilling, B., & Fadel, C. (2009). 21st century skills: Learning for life in our times. John Wiley & Sons.
- United Nations General Assembly (1989). *Convention on the Rights of the Child*. Retrieved from <u>https://www.unicef.org/child-rights-convention/convention-text</u>
- Valiandes, S. (2015). Evaluating the impact of differentiated instruction on literacy and

reading in mixed ability classrooms: Quality and equity dimensions of education effectiveness. *Studies in Educational Evaluation*, *45*, 17–26. https://doi.org/10.1016/j.stueduc.2015.02.005

- van Lier, L. (2007). Action-based Teaching, Autonomy and Identity. *Innovation in Language Learning and Teaching*, 1(1), 46–65. https://doi.org/10.2167/illt42.0
- VanTassel-Baska, J. (2006). NAGC Symposium: A report card on the state of research in the field of gifted education. *Gifted Child Quarterly*, *50*(4), 342–345. https://doi.org/10.1177/001698620605000407
- Verhavert, S., Wagemans, J., & Augustin, M. D. (2018). Beauty in the blink of an eye: The time course of aesthetic experiences. *British Journal of Psychology*, 109(1), 63-84. https://doi.org/10.1111/bjop.12258.
- Vialle, W., & Quigley, S. (2002). Does the Teacher of the Gifted Need to Be Gifted? Gifted and Talented International, 17(2), 85–90. https://doi.org/10.1080/15332276.2002.11672992
- Vidergor, H. E., & Ruth Harris, C. (2015). Applied practice for educators of gifted and able learners. In *Applied Practice for Educators of Gifted and Able Learners*. https://doi.org/10.1007/978-94-6300-004-8
- Waitoller, F. R., & Thorius, K. K. (2015). Playing hopscotch in inclusive education reform: examining promises and limitations of policy and practice in the US. *Support for Learning*, 30(1), 23-41.
- Watts-Taffe, S., Laster, B.P., Broach, L., Marinak, B., McDonald Connor, C., & Walker-Dalhouse, D. (2012). Differentiated Instruction: Making Informed Teacher Decisions. *The Reading Teacher*, 66(4), 303–314. https://doi.org/10.1002/TRTR.1126
- Welford, M., & Langmead, K. (2015). Compassion-based initiatives in educational settings. *Educational and Child Psychology*, *32*(1), 71-80.
- Wilson, H.E. (2018). Integrating the Arts and STEM for Gifted Learners. *Roeper Review, 40*(2), 108-120, https://doi.org/10.1080/02783193.2018.1434712
- Zembylas, M. (2013). The "crisis of pity" and the radicalization of solidarity: Toward critical pedagogies of compassion. *Educational Studies*, *49*(6), 504-521. https://doi.org/10.1080/00131946.2013.844148
- Zhang, D., & Luo, Y. (2016). Social exclusion and the hidden curriculum: The schooling experiences of Chinese rural migrant children in an urban public school. British

Journal of Educational Studies, 64(2), 215-234. https://doi.org/10.1080/00071005.2015.1105359

Zhao, G. (2014), Art as Alterity in Education. Educational Theory, 64, 245–259. https://doi.org/10.1111/edth.12060

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