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DEFINITIONS

HIGH INTELLECTUAL ABILITIES

Art Work: "The supreme project of human intelligence To construct true peace, fruit of justice"

UPPER COUNCIL OF EXPERTS IN HIGH ABILITIES
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INDEX

HUMAN INTELLIGENCE

<<All the previous attempts to define what is giftedness, talent, intellectual precocity, etc., have always been made difficult by the nonexistence of a previous definition of human intelligence. They also have found difficulties in the necessary conjunction, harmonization and consensus between authors of scientific approaches and partial contributions.

In each culture there is an idea of human intelligence, and of what the human being is. As Prof. Marina says, the idea that we have of what is human intelligence is going to determine the idea that we have of we ourselves, and this idea determines what we really are.

A definition of human intelligence of wide acceptance is: "Intelligence is the ability to receive information, elaborate on it and produce effective answers". But this definition does not distinguish human intelligence from animal or from artificial intelligence.

Definitions of human intelligence like "the ability to adapt to the environment" are also not "satisfactory". To an ape, its level of animal intelligence can be enough for it to adapt perfectly to a group of its equals and its environment, or even to feel happy.

Allen Newel, in his book "Unified Theories of Cognition", recognized unanimously by the international scientific community, considers intelligence as "the ability to connect two independent systems: that of the knowledge and that of the aims". Certainly this definition means an important advance, because the human being, in the solving of problems, interacts his knowledge with the goals that constitute the solution to the problem. But this definition forgets that human intelligence is able to collect and to create new information, to propose and to promulgate other aims or goals, to invent new possibilities, to recognize and to judge its own intellectual products, to create its own self.

The psicometric theory of intelligence has not even been able to define the intelligence that it tried to measure. When Binet, promoter of the first test of intelligence, was asked: What is intelligence? He used to answer: "It is what my test measures".

In the end of the psicometric experience we ask ourselves: Why are there so much differences between the psicometric tests results and those of life?

After one hundred years of scientific research, human intelligence and its phenomena have begun to be understood thanks to representation of cognitive processes. It is a qualitative jump that allows us to pass from the mere measurement of what could not even be defined to the understanding of the processes and the phenomena connected with human intelligence, and consequently, to the possibility of an approach to the methods of diagnosis, and the criteria of education, oriented towards happiness.

Cognitive Science has evolved, but it must continue evolving much more. It cannot consider that being reduced to the scope of human intelligence is an impoverishment. Cognitive Science has centered its study on "all the beings who know", "that compute information", "that use representations". (Pylshyn, Z.W.: "Computation and knowledge").

Cognitive Science is based, according to D. Michele: "On Machina Intelligence", in the "systematic theory of the intellectual processes wherever they have been found", starting from the approach expressed by Newel and Simon in "Human Problem Solving" (Englewood Cliffs, Prentice may), according to which, at an abstract level, the human being and the computer are devices of the same type.

Human intelligence reaches planes that animal intelligence or artificial intelligence will never be able to reach. Paraphrasing Prof. Marina we will say that human intelligence is the complete transfiguration of computational intelligence. Human intelligence, in its definition, can be based in the definition of computational intelligence, but man begins creating it and ends up organizing it, controlling it, directing it and transforming it. Because, the human being has feelings, sensations and emotions, in constant interaction with the cognitive system: dreams and loss of interest, distresses and pleasure. Also intellectual pleasure, the ability to recognize itself, and to manage its own limitations, to create new problems, to intuit or to invent new capacities and possibilities. Ability to transfigure itself in freedom by means of will: to determine itself.

For that reason, we conclude by agreeing with Prof. Marina that "human intelligence is the computational intelligence that determines itself".

We also agree with Marina on the need to create a "Science of Human Intelligence", which should discuss not only formal logic, but also of creative logic; not only means, but also aims. Not only reason, but also emotions and feelings, and their permanent interaction. Because human intelligence needs, and is able, to create the "Science of Human Intelligence". If not, it would not be human intelligence.

The development of the brain is not linear but there are key moments in the development of specific mental abilities. The early interactions determine how "it is wired" and how "the brain is interconnected", taking into account the emotional system and its permanent interaction with the cognitive system, the emotions as being crucial for learning, for generating patterns and for molding the brain.

An adequate education, from its early beginning, constitutes the brain architecture, creates new synapses, increases the number of neuronal connections, their quality and functional abilities, the axons' growth, the necessary dendritic branches increase. Human intelligence is can be taught: teachable, and conceivable. This is education's great responsibility.

The development of the brain in highly talented children – as has been demonstrated scientifically- is different, as is their education.

In the considerations of high capabilities of human intelligence phenomena, discussed below, we do not mention aspects like creativity or memory, because starting from the definition of human intelligence like "self-determining

computational intelligence", human intelligence is creative intelligence in its own nature, as it is creative memory.

In this approach we can say that human intelligence is an emergent reality, able to develop itself, until surpassing the daily determinisms.

It is the ability to not only know what things are but also to intuit and discover what they can be. It is tha ability to assimilate inputs giving them meaning. It is creating perceptive possibilities. It is to know how to think but it is also the freedom and the value of thinking, and the will to continue thinking. It is the ability to know, to recognize and to address our mental activity to fit it to reality and, if we want, to overflow it. It is, the ability to address the mental activities, and through them, the behaviors.

It is the ability to create itself, to constitute an intelligent self, to recognize itself, to ask itself and to rectify itself in this creation, to activate the self-correction of the possible processes of heterochronic maturation. It is the developmental ability of the metacognitive processes. These imply will, freedom, and ethics, as the science of human aims. And it is to create human dignity as its supreme project, that, in the social dimension of the human being, is to create the true social peace, fruit of justice. Because the existence of human intelligence in the cosmos answers an aim.

This conceptual base - which needs to be developed - will allow us to understand, determine and create our own personal and social reality. To know and to understand high talent as the highest expression of human intelligence. Carl G. Jung said in 1947: "the exceptionally gifted children are the most beautiful fruit of the human tree", and added: "at the same time they are those that are in greater danger, because they hang off its more fragile branches which frequently break". Through scientific understanding we will be able to make possible their right, the same as everyone else, to happiness and having a worthy life.

There is still some way to go before we reach the total development of human intelligence. In order to stop ignoring them and recognize its supreme incarnation in "the most beautiful fruit of the humanity tree", in Freud's disciple words: the exceptionally gifted children. In order to realise that they no longer "become broken", and so that their happiness and high talent are in benefit of society as a whole. To really construct the true peace.>>

Cover Art: *"The supreme project of human intelligence: To construct true peace, fruit of justice ". Under the light of intelligence, from an open book that symbolizes an opened constitution, held by people, not by a mass, the three pillars arise independent: Legislative, Judicial and Executive powers. In the dawn of a new day and in the placidness of a sea that is illuminated, dreams and hope in the future are symbolized. It is then, when the balance of the scales of justice goes to drink the true peace in form of stylized doves. But, in the dark left bottom corner, where the light of intelligence does not reach, and under dense clouds, two witches: the ignorance and the arrogance continue interacting, weaving their networks: the meanness and maliciousness.*

GIFTEDNESS

<<Giftedness is a cognitive and emotional phenomenon, stable and global of the human person[1] characterized and defined by a basic fact: differences in the high intellectual ability of a subject, not only at a quantitative level, but mainly in the way it works[2] imply a very important qualitative difference [5].

It is not a matter of an unidimensional attribute but implies the conjunction of different factors qualitatively equal[3], and for this reason it has to be conceptualized as a complex profile more than as a psicometric index only. A profile in which each and every intellectual resource presents a high level, joined with rich and complex structures and functional arrangements of the cognitive[4] abilities in a combined action and conectivity[5].

Giftedness is a contruct formed by a wide core of variables which work toghether (coalescence) and give excepcionality as a result[3]. These relevant variables are: general concep of selft, the general situation inside the group, school selfconcept, learning style and motivation[35].

Giftedness is the maximum expression of the human intelligence, and it is characterized by a symptomatic constellation. It is essentially the result of interaction between human variability and environmental circumstances which favour the precocious appearance of abilities in the neurological maturationy process. This neurological maturation process takes place during a time in life in which learning -suitably stimulated-, is especially sensitive (imprinting), depending on neuroglial circuits previously established (genetic) and others relatively certain and learning capable (epigenetic). This maturation process is completed by the development of neuroglial circuits under a heterochronic genesis system[6].

Different abilities are combined[7]. Giftedness is in the confluence of cognition (intelligence and imagination) with emotional factors (affection, sensitivity, empathy and endeavour: interest and motivation)[8] and in order to achieve productivity levels its interaction is required[9]. Giftedness is not performance, it is potential[18] that has to be understood as ability and potential to reach higher performance if ways are provided oriented to a proper development[21].
Giftedness and High Abilities New Paradigm implies the knowledge of the permanent interaction between the emotional processes and the cognitive system, the diagnostic guidelines specific to these people, which are quite different from the general guidelines, currently the DSM-IV-TR[10,] as well as their different development and diferences in the brain's morfologic configuration[36].

The Giftedness and High Abilities New Paradigm considers relevant the fact that gifted persons constitute the major human capital that a society has if their gifts and talents are properly educated [37].>>

The asynchronous character syndrome

<<Giftedness characteristics are described in Robinson-Olszewiski-Kubilius' Table, 1996, being the first of them: " Neuropsycological asynchronous (unharmonic) maturity process" [6].

Asynchronous Character Syndrome is a concept that refers to the lack of coordination that can appear among different development levels, such as the intellectual and emotional ones[5], as a consequence of gifted person's specific heterogeneous development[12]. Heterochrony is not a simple sample of different speeds: it is a system, a structure that finds its origin in a certain neurophysiological maturity factor genetically determined[13].

Among the consequences of this phenomenon are problems of identification of gifted persons, as well as their learning level[14], since the clinical experience demonstrates the artificiality of separating the affective condition and the cognitive functions, since the disturbances in one of these fields end up having effects in the other[15].

In childhood and adolescence the internal imbalance is often fueled by the external or social imbalance, and especially with the Scholastic Asynchronous Character Syndrome produced by the imposition of just a unique educational response opposite to the pupils' diversity, causing an emotional imbalance in gifted persons[16], source of conflicts and even pathologies[17].

The gifted ones' internal and social imbalance can be a source of problems. It may provoke the appearance of more pathologic behaviours[15] even as serious as a psycho affective schizophrenia[7].

Asynchronous Character Syndrome is a common phenomenon in all the cases of intellectual precociousness. Now we are speaking about possible pathologies that will have to be treated by a specialised professional[5]. On the other hand, if the school was really adaptive, gifted children would not have any scholastic problem[18].

The clinical diagnosis of gifted people will have to include, in all the cases, the Asynchronous Character Syndrome Differential Diagnosis[10] as well as other related pathologies[6], such as the Identity Diffusion Syndrome [38].

Stimulation of self correcting routes constitutes the epigenetic action level that makes possible the harmonization of the asynchronous behaviours with the global ones[6]. The correct approach to the Asynchronous Character Syndrome needs two combined actions: on one hand the ambulatory treatment in a specializing center, and on the other one, the suitable approaches in the Curricular Adaptation, incorporating the paces, and especially, the specific gifted persons' learning styles, fitted to every case[19] in a way that the Clinical Diagnosis determines[1].

The cases, in which the effects of the Asynchronous Character Syndrome are more observed are, in this order: precocious pupils, academic talents, logical talents and gifted.[5>>]

The integrated clinical diagnosis

<<The identification and diagnosis of each and every of the pupils constitutes the first step in the educational system[12]. Intellectual exceptionality is not easy to identify, and giftedness is even less so[5]. Giftedness diagnosis will have to be based on clinical analysis of its characteristics and with the identification the Clinical Diagnosis willl be provided[6].

The identification must be diagnostic by nature, considering values and aptitudes, as well as problems, weaknesses and emotional and cognitive needs[20].

If standardized measures do not turn out to be relevant it is necessary to resort to clinical judgment[21].

"Detection" and "psicopedagogic evaluation" are previous approximations that facilitate the Clinical Diagnosis, but, in any case, only the Clinical Diagnosis carried out by a specialized team of professionals, with the appropiate qualifications, will be able to determine in every moment if a child is situated, or will possibly be situated, within the bounds of intellectual excepcionality[22].

Only from the Clinical Diagnosis it is possible to deduce the necessary educational measures. Initial educational measures are often shown to be gravely in error when they have been based only on previous psicopedagogic evaluation[22].

Giftedness cognitive factors are identified through psicopedagogic evaluation, (education professionals) and at the same time through clinical judgment (reason), while emotional factors, and its permanent interaction with the cognitive system, are identified only by means of Clinical Diagnostic, which in all the cases will have to include the Asynchronous Character Syndrome Differential Diagnostic and other associate pathologies (health professionals). It requires a multiprofessional team and unity of action[10].

The gifted child Clinical Diagnostic can not be understood as a one-sided process. All three parts are involved: the family, the education system and a specialised external centre will have to take part, each with its specific contributions. All three actions must be done in harmony. None of them should be considered determinant.

When it is a child or young person in question, the parents have the exclusive right to choose the center (public or private) to carry out the Giftedness Diagnosis. This is true for the undertaking of the previous approximations (detection, identification and psicopedagogic evaluation) in its educative factors[24], as well as the clinical factors: analysis and Diagnosis[25].>>

(The "Experts' Top Council in High Capacities Clinical Integrated Diagnosis Model" can be found in the Top Council Web: http://cseac.iespana.es).

Gifted pupils' learning styles

<<Gifted children are not only faster than normal children but they are different: they think and feel differently from the rest[14], they see problems otherwise, learn otherwise[26], they use different ways for solving problems and have different learning styles[27]. In the same way as water changes its properties when reaching certain temperatures, human intelligence changes its properties when it reaches a critical level [28], because a high IQ is not simply more of the basic mental skills that everybody has, on the contrary, it is a difference in processes and approaches[26].

Gifted (and talented) children need different educational programs special services which are not provided by normal school programs in order that they may fulfil their contribution to themselves and to society, thus enabling their high capacity to produce results.

They need a wide variety of educational opportunities and services that are not ordinarly foreseen in the standard educational programs[9], which are specified in a Curricular Adaptation that has nothing to do with an individualized or segregated education[39], and in all cases is based on their specific learning styles, orientated to the permanent interaction of the emotional processes in the cognitive system[19].

The gifted pupils need of different programs and specific learning styles will not be such when an educational system reaches the "Fourth Phase": Quality of education for everybody in the conditions indicated in the UN Human Rights Commission 2003 report[32].

The gifted childrens' specific Learning Styles are indispensable for these pupils, and at the same time they turn out to be very beneficial for all of the rest[33]. They constitute the essence of the Curricular Adaptation, indexed in the group curriculum[5]. All the students take part in the Curricular Adaptation development and application, each student from a different perspective according to their capacities and talents and specific values, thus creating a permanent interaction of each one with the others, which promotes integration and performance of every student[19]. The educational intervention (The precise Curricular Adaptation, that in certain cases can include acceleration) is indicated by means of Clinical Diagnosis[1]. The execution of the design, development and evaluation of the Curricular Adaptation is an the exclusive responsibilty of teachers and school directors[22].

When the gifted children do not receive the different school programs, the essential Curricular Adaptation, a situation of risk is created for their psychic health that must be reported inmediately[31]. This situation also provokes Asynchronous Character Syndrome, Diffusion of Identity Syndrome, so that, as a rule, the causality principle is established with the cognitive distortions that constitute the cause and the maintenance of the psychic disease, including the disorders of personality. Such that we are able to affirm, as a general rule, that this situation prevents, in any case, the exercise of the right to receive an education aimed at the full and free development of the personality[10].>>

(The international Paper "**The Gifted Pupils Learning Styles "** is found in the Top Council Experts in High Abilities web: http://cseac.iespana.es)

INTELLECTUAL PRECOCITY

<<Intellectual Precocity is the evolutionary, cognitive and emotional phenomenon of the human intelligence by which along the development stage and activation of the intellectual basic resources (0 and 14 years) the differences of configuration can be attributed to at least two reasons: Differences in the pace of development, if the activation of the intellectual resources is carried out in a briefer lapse of time than the average pace (considered normal) and differences in ceiling if once finished the cognitive development it presents more and better aptitudes than the average[5].

Pupils with Intellectual Precocity need the same educational treatment as the gifted pupils[12].>>

SIMPLE TALENT AND COMPOUND TALENT

<<Talent is the cognitive and emotional, stable phenomenon of the human intelligence which answers, up to a point, to the opposite concept to Giftedness: Specificity and quantitative differences, whereas in the Giftedness the more important intellectual differences are the qualitative ones and overall abilities[5].

Simple talent: High aptitude in an area or type of information (Eg: verbal or mathematical), or in a type of cognitive processing (logical or creative). In other areas or forms of processing they can present discreet or deficit levels.

Complex talents: They are constituted by the combinations of specific aptitudes: Academic Talent (Verbal + Logician + Memory Management). Artistic talent (Perceptual Management + Spatial Aptitude + Creative Talent) [5].

A set of environmental and intrapersonal catalysts are needed in order for a talent to emerge[34].

Pupils with Simple Talent or Compound Talent need, as do the gifted pupils, programs and educational services different from those commonly provided by normal school programs to be able to carry out their contribution to themselves and to society[29].>>

HIGH INTELLECTUAL ABILITIES

<<High intellectual abilities are understood as the set of cognitive and emotional phenomena previously defined[1]. All of them need an educational attention different from that commonly offered at shools[29] that is: educational school attention: (Curricular Adaptation) and educational out-of-school attention (Specific Programs of High Abilities). Both actions must be developed in a coordinated way.[22]

Very few persons can be considered to be fully representative of a cognitive and emotional concrete phenomenon. The majority are situated in the confluence of several ones[1].

The analysis of the cognitive factors of the High Abilitities belongs to the educational area and at the same time to the Health Science domain, whereas the analysis and diagnostic of the emotional factors of the High Abilities and its permanent interaction in the cognitive system, as well as the indispensable Asynchronous Character Syndrome differential diagnosis belongs exclusively to the clinical area. Thus the diagnosis of the high abilities requires a multiprofessional team of specialists with wide experience in which qualified health professionals will have to take part and not only educational professionals.[10, 50].

As for the Psychologists, in the light of the health laws, only those that possess the Specialist's Degree in Clinical Psychology are considered to be professionals with health qualifications[51].*

The top abilities are given in children and teenagers from all the cultural groups, in all the social strata and in all the fields of the human activity [11].>>

* In Spain, Health Professions Arranging Law 43/2003 of November 21.

GIFTED CHILDREN CHARACTERISTICS [66]

1. Asynchronous neuropsycologic maturity process (unharmonic) 2. precocious acquisition of language and reasoning skills. 3 Conversational level and interests similar to those of older children. 4. Insatiable curiosity and keen questions. 5. Fast and intuitive comprehension of concepts. 6. Impressive long-term memory. 7. Aptitude to have in mind unimaginable problems. 8. Aptitude to relate concepts. 9. Interest in the companions and in the social relations. 10. Advanced sense of the humor for their age. 11. Brave exposition of new ways of thinking. 12. Pleasure in the solution and approach of problems. 13. Aptitude to be independent in diverse activities. 14. Talent for a specific area: music, drawing, reading, etc. 15. Sensibility and perfectionism. 16. Intensity to feel emotions.

THE RIGHT TO THE EDUCATION IN DIVERSITY

<<The International Conventiona on the Rights of the Child adopted by the United Nations General Assembly of November 20, 1989, states in its article 29. 1.a: "The ratifying States agree that child's education will have to be aimed at: a) Developing the child's personality, aptitudes and mental and physical capacity up to the maximum of their possibilities"[65].

It is known by science that each child's maximum level of possibilities is diverse, since their development is different and their personalities, aptitudes, and mental and physical capacity are diverse in every child[67]. Therefore, every child's right to education in diversity is legally recognized in all the states that have ratified this International Convention and, therefore, falls under each states judicial order.[65]

It is difficult to imagine the "right to the diversity" in a dictatorial state. But, it is even more difficult to conceive a democratic state in which this right is translated into practice only in a few timid measures which merely compensate for inequalities and that can be hardly reached[40].

The Diversity Law in the school goes beyond the mere integration and specific inequality compensating measures, since the school has to respond to all and not to attend some in detriment of others. It is the "shared Pluralism" [64], which allows all the pupils to acquire a cultural patrimony that supports the right of everybody to a dignified life.[40].

It is a question of understanding diversity as support for a series of values of cardinal importance for the construction of a democratic, plural and tolerant society. To educate in diversity is to recognize the existing differences between people. It assumes a school for all that makes the culture of the diversity its own and places us all in a non-exclusive quality framework[33].

To recognize the existing differences between people implies, for teachers, knowing and respecting the different form in which every brain processes information. To understand and attend to education adapted to every pupil[40], that increases the number of his(her) dendrític branches[41], creates and multiplies new synapses[42], enriches the number and type of neural connections, their quality and their functional abilities[43]. Taking into account the early interactions across "windows of oportunity" [44], which determines how the brain is wired and how it is interconnected[45], since intelligence is teacheable and learnable, and education adapted to each one is, also, their brain architecture[41].

Before proposing pedagogic measures it is indispensable to update our knowledge on the innate resources that every brain has for learning[47]. If we do not know how every brain is, how it processes information, how it learns, we cannot plan effective teaching[48].

In Spain, the right of education in diversity has been legally recognized by The Organic Law of Education (LOE). In the educational system previous to the LOE[49]

the attention to diversity was the exception to the homogeneous education that was the norm. In the LOE the attention to diversity is established as a fundamental principle that must govern the whole basic education, providing to the whole student body an education adapted to his(her) characteristics and needs[50].

This type of education needs an individualized planning for every student, but it is not opposed to education within a group[50].

The realtionship of the gifted pupil, through his(her) curricular adaptation, with the other, each one from his(her) own talents and values, brings about an intense pedagogic dynamic that raises the everyone's performance, removes the school failure and allows the classroom to advance towards the new forms of self-regulating learning that shape the 21st century New Education Paradigm, which arises from the Bologne Agreement [10].

The attention to diversity demands the prior diagnosis of pupils' specific needs and solutions adapted in every case depending on this diagnosis[50].

The right to diversity is respected when "different learnings are corresponded to different minds" [51]; when equity and excellence are not situated in conflict, but in harmony and conjunction[52].

When comprehensibility is not placed in tension with the culture of effort and the satisfaction for its achievements. And when equality, erroneously compared with justice, is not situated in tension with the education in freedom. [40]

It is, definitely, when the basic concepts, overcoming partisan and ideological interpretations, are orientated to international research scientific postulates, and in consequence, they find conjunction and permanent interaction [40].

The right to diversity finds its reference frame in the 21st century New Education Paradigm, which arises from the Bologna Agreement and brings the whole series of modifications and deep changes at organizational, legal and administrative levels[53], as a result of the requirements and characteristics of the knowledge and the learning societied[54]. It is centered on the concept of lifelong learning as the generating process of new forms of thought, and implies a school centred on every pupil's different learning process and not in the quantitative result, providing each of them with the skills orientated to "learning to learn" throughout their life[55].

On the other hand it implies an autonomous, personal learning based on the styles and paces of learning of each student and in the conception of the student as an active part of the process. [55]

From the psycho-educational point of view the autonomous learning that sends us to the ability of "learn to learn"[56], metacognition, intrinsic motivation and strategic action are required [57], and, definitely, the capacity for self-regulation of one's own process of knowledge and learning construction[58], orientated to the personal perspective of future that every pupil develops[59].

This learning conception, and the need to achieve it, effects all the educational levels [60].

The self-regulated learning for all the pupils is defined as: "An active process in which the students establish the aims that guide their learning, trying to monitor, to regulate and to control their cognition, motivation and behavior, with the purpose of achieving it"[61].

In this context, the gifted pupils learning styles are synthesized in the self-regulated learning generating new forms of thought. They require full self-regulation of the knowledge construction process which leads to the development of the capacity to 'learn to learn' throughout life. This implies monitoring, regulating and controlling the metacognition; development of intrinsic and permanent selfmotivation ability and strategic action is also required.

It is learning by constant personal discovery, which excludes any form of repetitive, rote or mecanichal learning, orientated to real life through the practical existential and vocational aims that the pupil is developing, and at the same time orientated to the discovery of truth and to the sense of their personal being and lasting destiny. It require an emotionally intense and suitable school environment: understanding attitude, respect and full acceptance of fact of their differentces, which will allow them to develop their own self-understanding, self-acceptance and self-esteem; learning as personal challenge, by means of their intuition and through big intuitive jumps, constant research and development of creativity.

They need to feel themselves, not objects, but subjects, protagonists and creators of their own educational process in a cooperative and not competitive arena. They need to feel surrounded by a suitable level of "diversity culture" (especially the gifted girls) in order not to have to continue masking, restricting, denying, and in the end destroying their exceptional abilities.

They need to be able to develop as free people, and as different as they actually are, to be able to develop in the new globalised knowledge society that they already feel, to accept the challenges that will correspond to them, and be able to have in it a dignified life.>> [40]

REGISTRO GENERAL DE LA PROPIEDAD INTELECTUAL

Según lo dispuesto en la Ley de Propiedad Intelectual (Real Decreto Legislativo 1/1996, de 12 de abril), quedan inscritos en este Registro los derechos de propiedad intelectual en la forma que se determina seguidamente:

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En Barcelona, a dos de febrero de dos mil seis

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32. "Fracaso y refundación del Sistema Educativo" (Failure and new foundation of the educative system) (http://cseac.iespana.es).

33. Joaquín Gairín. Professor of Pedagogy, "Universidad Autónoma de Barcelona".

34. Feldhusen and Gagné. Dr John F. Feldhusen, professor emeritus Purdue University.

35. Robert Gagné. Doctor in Psychology, author of the theory of the Learning Conditions.

36. Franz J. Mönks, Center for the study of Giftedness, University of Nijmegen (Holland); President of the European High Ability Council.

37. Investigation made by the Mental Health National Institute of the United States and the Mc Gill University of Montreal, Canada. Nature Magazine. 13 of April of 2006.

38. Isaac Garrido. Head of Basic Psychology Department, Complutense University of Madrid.

39. Otto Kemberg and Heiz Kohut, President and Ex President of the Psycoanalytic International Society.

40. Ignacio Puigdellívol. Proffessor of Pedagogy, University of Barcelona.

41. Josep of Mirandés in "The Intelligent Education" Ed. Temas de Hoy". General Secretary of the Superior Council of experts in high capacities (Universidad Francisco de Vitoria), President of the Spanish Confederation of Associations of High Capacity

42. Rhyme Shore. Rethinking the Brain: New Insights into Early Development. Neuroscience, Director of the University Consortium Laboratory for the Design & Redesign of Schools (LDRs) (USA). Author of Rethinking the Brain: New Insights into Early Development. and synthesis of new applications from the Neuroscience

43. William Greenought, researcher of the Illinois University, doctor in Philosophy, professor of Cellular Psiquiatry and Structural Biology

44. Feurestein & Perkins. Dr. Reuven Feuerstein, Ph.D. in Developmental Psychology and Philosophy. Clinical Psychologist. Centrée Director of Development of Human Potential in Jerusalem. Author of the Theory of Structural Cognitive Modification (SCM), Survey of the Theory of statements of Experience (MLE), and the Theory of Feuerstein Instrumental Enrichment (FIE).

Dr. David Perkins PhD in Artificial Intelligence, in Philosophy and Mathematics. Professor at Harvard Graduate School of Education Former Co-director of Project Zero of Harvard Graduate School of Education.

45. Chungani & Carter. Dr. Harry Chungani, Neurologist and Pediatrician. Investigator Wayne State University in Detroit.

Dr. Rita Carter, a neuroscientist and writer specializing in human brain function. (UK) Author of extensive scientific production that enters the stands. "The new map of the brain"

46. Hancok. Scientific Researcher of the California University(IRVINE).

47. Arthur Costa. Education Emerit Professor of the University of the State of California, Sacrament. Professor Emeritus of Education at California State University, Sacramento. Co-Director, Institute for Intelligent Behavior in Cameron Park. Former director of NASA's educational programs, the author of the Theory of Effective Thinking.

48. New guidelines of the “National Research Council of the National Academies”.U.S.A.

49. Xaro Sánchez. Neurocientific Psychiatrist, “Universidad Autónoma de Barcelona”.

50. Resolution of the Education Department of Catalunya of the 12 of September of 2007

51. Spanish Ministery of Science & Education, “Atention to diversity in the LOE”, workers of theTeaching Magazine Nº 76, septiembre-octubre de 2006.

52. “Different Minds, different learnings” Mel Levine,U.S.A Ed. Paidós.

53. Howard Gardner. Prof. of Psychology, University of Harvard and Prof. Of Neurology, University of Boston.

54. Michavila. Professor of Applied Mathematics Department of Applied Mathematics and Computer Methods at the Polytechnic University of Madrid. Director of the UNESCO Chair in University Management and Policy from the University of Madrid. Academic of the Royal Academy of Doctors. Member of Scientific Committee for Europe and North America UNESCO Forum on Higher Education, Research and Knowledge, in Paris. Patron of the Francisco Giner de los Rios Fundation. Free Institution of Education.

55. Antonio González Fernandez: teory, application & motivation “*Wagenaar. Division Biological Sciences, Neurobiology Section*” California University, Saint Diego

56. Martín & Pozo. Learning Cognotive teories, Strategic Learning

57. Perry N. Perry, *Promoting self-regulated reading and writing at home and school. The Elementary School Journal*.

58. Schnk y Zimmerman. 2001, *Reflections on theories of self-regulated learning and academic Achievement Self Regulated Learning and Academic Achievement. Learning theories. An educational perspective*

59. Julio To. González-Pineda (University of Oviedo), Susana Rodríguez and Antonio Valle (University of La Coruña).

60. José C. Núñez, Julio To. González Pineda, Paula Solano. University of Oviedo and Pedro Rosario, University of Minho

61. Pedro Rosario (University of Minho, Baga, Portugal)

62. Rule of the Spanish Ministery of Science & Education. El Mundo 23 de Enero de 2006, Official Boletin of Catalunya General counseil of Oficial Schools of Lawyers Nº 54 Febrero de 2006.

63. Statement of the Department of Health, Government of Catalonia, on the diagnosis of high capacities of 29 July 2006.

64. Lorenzo y Ruedas, Shared Pluralism Theory, as an expresssion to the right to diversity at the schools

65. José A. Latorre Cirera, Lawyer specialized in right to Education

66. Robinson -Olzewski- Kubilius Table

67. Elena Kim, University of Tashkent, specialist in Epidemology

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