Educational and cultural diversity and the case of multiple intelligences theory within a Romanian secondary school

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Abstract

This paper approaches the problem of diversity in an educational context. The balance between diversity and unity is an old philosophical question. Education has not been spared the struggle for the answer to this dichotomy. The application of multiple intelligences theory, based on the administration of a MIDAS questionnaire, has revealed a detailed panorama of the potential of a group within the context of the education system. The problem of diversity is not bound to the direct teaching or immediate address of this potential. It is not only a question of the immediate but also a question of what the future holds and how this potential unfolds and is folded by the context of the global village and its speeded time spiral.

Keywords: Educational diversity, cultural diversity, multiple intelligences theory, interpersonal intelligences, intrapersonal intelligence.

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1. Education, culture and intercultural encounters of individual potential

There is no doubt that globalisation is no different to previous periods in humanity's history, in which we encounter all the levels and nuances from extreme sympathy and enthusiasm to neglect and ignorance; still, there are distant communities and individuals in various and remote parts of the world that have not yet been touched by it. Within this trend, a large variety of other types of encounters and rejections takes place on the vertical and horizontal axis of time both chronological and diachronic in aspects and manifestations. The relationship between education and culture has been discussed and regarded as a favourite topic for philosophers and politicians; when one looks into the history of political philosophy examples, we could take from the actual globalisation whirlwind not being necessary to plunge into the entire history of culture and civilisation or in parts and segments of it as delineated in ages, periods or currents of thought. From a historical point of view, since the beginning of humanity and the emergence of social consciousness, human beings have come into contact with one another, and the development of society has been sustained by new techniques, technology and the advancement of science. The problem of one culture taking over another by various means and circumstances, which we shall not discuss here, is again a factor that has not been totally eliminated from history's flow although we are less aware of its pulsation while we are absorbed and captivated by Facebook, Instagram, Twitter and other sparkling and bubbling elements of informational and informatics devices, as intrinsic elements of informatics and digital society welcomed in the globalised age. In the settled and organised societies, intercultural encounters emerged in various ways but on a much more moderate scale. Due to the way the societies were organised and structured, the movement of the individual was regulated and directed in such a way that, in some parts of society, moving from one village to another or from one class to another class was made not only very difficult but also almost impossible. However, despite this restrictive management, individuals were given opportunities by their landlords and others and accomplishments, and the realisation and emergence of achievements at individual and social, cultural, scientific and artistic levels took place. What we need to observe is that, in the past, the probability often countering new dimensions of other cultures was much more limited although was not excluded, considering the situation that we are in with the post-modern and global society and age. It is worth considering the answer of Calvin O. Schrag gave in the final interview with Angela Botez, as presented in her book on Postmodernismul in filosofie (Postmodernism in Philosophy) (Botez, 2005, pp. 316–319). At Botez's question: 'What do you think about the relationships between the philosophy of the mental, philosophy of science and philosophy of culture nowadays'? Schrag's answer was as follows: 'The themes belonging to the philosophy of the mental cannot be separated from those of the philosophy of science and philosophy of culture. The grammars of consciousness, of beliefs, of dispositions, of personality and self-identity, all standing in the attention of the philosophy of the mental, receive their intelligibility in the formative process of culture. Philosophy of culture establishes the context for the understanding of the mind's determinations and for that by which we understand the 'ego'. The philosophy of the mental and philosophy of culture are closely linked and in this interdependence philosophy of science plays a cardinal role. Especially with regard to the distinction between natural sciences (Naturwiessenschaften) and human sciences (Geisteswiessenschaften), philosophy of science is able to differentiate the operative conditions in the knowledge of external nature by those operative in the knowledge of human ego and experience the possible complementary relationship between the two' (Botez, 2005, p. 319). Although the first impression, as many claims are that, in the post-modern society, post-industrial, and other 'posts' or more recently 'deglobalisation' hubris prevails, the idea of order, relationships and communications are still active and *in situ* and function as a regulatory principle with antique virtues as natural regulatory principles, aims and ideals but only with those who safe keep them and aim to succeed. In this respect, education cannot be excluded, and it is not excluded from such ideals and it is part of the struggle to such aims and ideals. Although confused or recognised by some as only the patrimony of formal systems, it has been proved that education's labours have not yet been exhausted, neither by the formal nor the informal system; the alternative

forms such as Montessori, Waldorf and Step by Step, despite the criticisms from the non-specialists, target the same ideals.

2. Application of multiple intelligences theory as recognising and opening ways to the reality of diversity

When Alfred Binet (1857–1911) and Theodore Simon (1873–1961) began their work attempting to measure the nature of human potential as emerging in the form of human linguistic and mathematic intelligence, they opened a way for possibilities in education that has not reached its apex in terms of making measurement a firm element in the design of education as related to the individual's potential. The development of this approach took many forms, but its direct application in 'everyday educational practice' is far from what it could be. Indeed, designing tests has been a subject for controversy and criticism based on empirical assumptions or distorted by popular examples promoted in the literature specific to popular magazines and informal reviews. When coupled with a new theory, as in the case of multiple intelligences theory, of course, the interest and preoccupation are beyond curiosity. Beginning as an application to see how it is possible to enhance the motivation and educational results, the administration of the MIDAS questionnaire to secondary school students has revealed data that are beyond mere imagination and possibility based on empirical and simple tests designed as an immediate attempt *ad hoc* and hic et nunc. Although the priority questions when the results came out were directed towards the well-known linguistic and mathematic aspects, the other types and the panorama of the educational group to which it is offered are worthy of taking into account. First, one has to recognise the indicative value of the test in general and in particular here as well. Turning the results into dogmatic attitudes to extract some exceptional results is an utterly rejected attitude and practice. However, based on its indicative role, it is important first of all to realise that there is something rather than nothing in all of the types in a question, and this is a step forward. As for their realisation, there is a function of its individual complex and the cultural, social, economic and so on context, in which it will evolve in the course of time not to forget the unforeseeable which may act on it in any places and at any moment in time.

3. Interpersonal and intrapersonal intelligences as elements for social competence

The aforementioned application of the instructional model was based on the first type of Bloom's taxonomy with activities based on the national curriculum for the subjects of Romanian Language and Literature, English Language and Mathematics. The profiles of individual students, as generated through the questionnaire, were compared to the educational results for the aforementioned subjects and the other subjects of study as well. These two categories of results were complemented by extracurricular activities, activities from non-formal education and informal and general data from parents. All in all, a large multicolour panorama unfolded in front of the researcher. The lists of activities, marks and other information to be categorised and analysed are not just a simple list of constructs, characteristics or dry pieces of information. These are elements and parts that compose personalities, characters, talents and future professionals, or just simple beings that would choose one or another path in life, in one place or another having to face and solve more or less complex problems in various contexts and encounters. Indeed, it is justified for a parent or teacher to ask: 'Does this sustain the student's effort to become a professional in that field or another?', 'would he succeed?', 'do I take part with this student in a competition and win first place?' and well, all these actually depend on the components that intrapersonal and interpersonal intelligences. Therefore, to refer and have only a one-dimensional approach in terms of how a potential is best used to succeed is a guarantee way to fail. These types of intelligence have a strong competitor from the side of emotional intelligence theory although the complexity of the scientific approach of all these which draw on is so vast that it is no wonder so much amateurism abounds when looking into this matter.

3.1. Interpersonal intelligence

The elements that were taken into account when designing the constructs for this type of intelligence are: (1) Chapin Social Insight Test, (2) social intelligence test and (3) inventory for social skills (The MIDAS: A Professional Manual, YEAR? p. 49). The constructs are leadership, comprehension (understanding) and relationship with each other. The administration of the MIDAS questionnaire (Shearer, 1999) to both experimental (*n* = 31) and control (*n* = 32) groups provided the following distribution for this type of intelligence (Table 1).

Table 1. Interpersonal intelligence of initial and final tests of Group 1 and Group 2 (5th to 6th grade)

Groups	Very low level	Low level	Moderate level	High level	Very high level
G1 initial test	8	5	12	5	1
G1 final test	0	1	15	8	7
G2 initial test	0	11	14	6	1
G2 final test	0	6	15	9	2

In Table 2, E notes each student according to their order in the grade registration catalogue, followed by the scores from initial to final test observed for each student of control group. The variation in score for each student is thus observable for this type of intelligence.

Table 2. Interpersonal intelligence of experimental group for initial and final MIDAS tests

	MIDAS initial test						MIDAS final test				
Score	Very low	Low	Moderate	High	Very high	Score	Very low	Low	Moderate	High	Very high
Interpersonal intelligence Elev(score)/ Student-core	E3 – 18 E7 – 25 E9 – 25 E10 – 39 E17 – 39 E22 – 29 E25 – 36 E28 – 23	E1– 34 E11 – 39 E14 – 35 E21 – 35 E29 – 43	E2 – 50 E4 – 46 E5 – 41 E8 – 48 E12 – 41 E19 – 57 E20 – 57 E23 – 41 E24 – 48 E26 – 43 E27 – 47 E30 – 41	E6 – 68 E13 – 61 E15 – 63 E16 – 64 E31– 66	E18 – 89	Interpersonal Intelligence Elev (score)/ Student-score		E11– 27	E1– 52 E2 – 55 E5 – 43 E7 – 41 E8 – 55 E10 – 59 E13 – 50 E14 – 52 E17 – 47 E24 – 52 E25 – 50 E26 – 55 E27 – 59 E28 – 57 E30 – 55	E3 – 64 E12 – 78 E15 – 77 E18 – 80 E19 – 64 E21 – 71 E22 – 64 E23 – 64	E4 – 91 E6 – 98 E9 – 86 E16 – 93 E20 – 86 E29 – 82 E31 – 75
Total of students	8	5	12	5	1	Total	0	1	15	8	7

The representation of scores for both groups from initial to final MIDAS test and from 5th to 6th grade is shown in Figure 1.
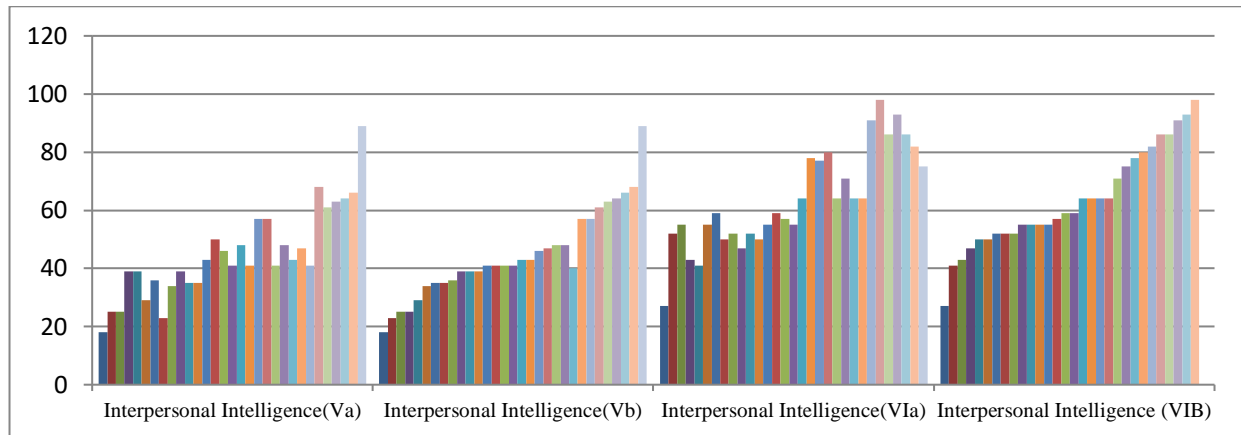
Figure 1. Interpersonal intelligence for both groups from initial to final test from 5th to 6th grade (Va and Via experimental groups; Vb and VIb – control groups)

3.2. Intrapersonal intelligence

For this type of intelligence, the constructs are (1) self-knowledge, (2) management of emotions and feelings, (3) effective relationship and (4) ideal aim.

Table 3. Intrapersonal intelligence of initial and final tests of Group 1 and Group 2 (5th to 6th grade)

Groups	Very low level	Low level	Moderate level	High level	Very high level
G 1 initial test	0	12	13	4	2
G 1 final test	0	3	12	9	7
G 2 initial test	0	10	15	7	0
G 2 final test	0	3	17	10	2

Table 3 shows the general disposition of this type of intelligence, and Table 4 shows the average scores for each student from initial to final MIDAS test.

Table 4. Intrapersonal intelligence experimental group for initial and final MIDAS tests

	MIDAS initial test					MIDAS final test			
Score	**Very low**	**Low**	**Moderate**	**High**	**Score**	**Very low**	**Low**	**Moderate**	**Very high**
Intrapersonal	E1 – 34	E2 – 41	E11– 64	E6 – 82	Intrapersonal		E7 – 39	E1 – 52	E3 – 73	E4 – 84
Intelligence	E3 –29	E4 – 55	E20 – 61	E18 – 84	Intelligence		E11 – 36	E2 – 55	E10 – 73	E6 – 98
Elev(score)/St	E5 – 40	E8 – 56	E26 – 64		Elev(score)/		E13 – 39	E5 – 48	E12 – 75	E9 – 95
udent score	E7 – 25	E9 – 46	E31 – 70		Student			E8 – 55	E15 – 68	E14 – 98
	E13 – 32	E10 – 57			score			E14 – 55	E18 – 77	E20 – 95
	E14 – 36	E12 – 56						E17 – 48	E19 – 71	E29 – 82
	E17 – 23	E15 – 44						E23 – 46	E21 – 64	E31 – 82
	E22 – 29	E16 – 50						E24 – 59	E22 – 66	
	E21 – 35	E19 – 59						E25 – 59	E26 – 61	
	E25 – 29	E23 – 45						E27 – 55		
	E27 – 32	E24 – 41						E28 – 52		
	E28 – 36	E29 – 43						E30 – 64		
		E30 – 59								
Total	12	13	4	2	Total	0	3	12	9	7

Figure 2 shows the scores gradually represented from initial to final and from 5th to 6th grade for this type of intelligence.
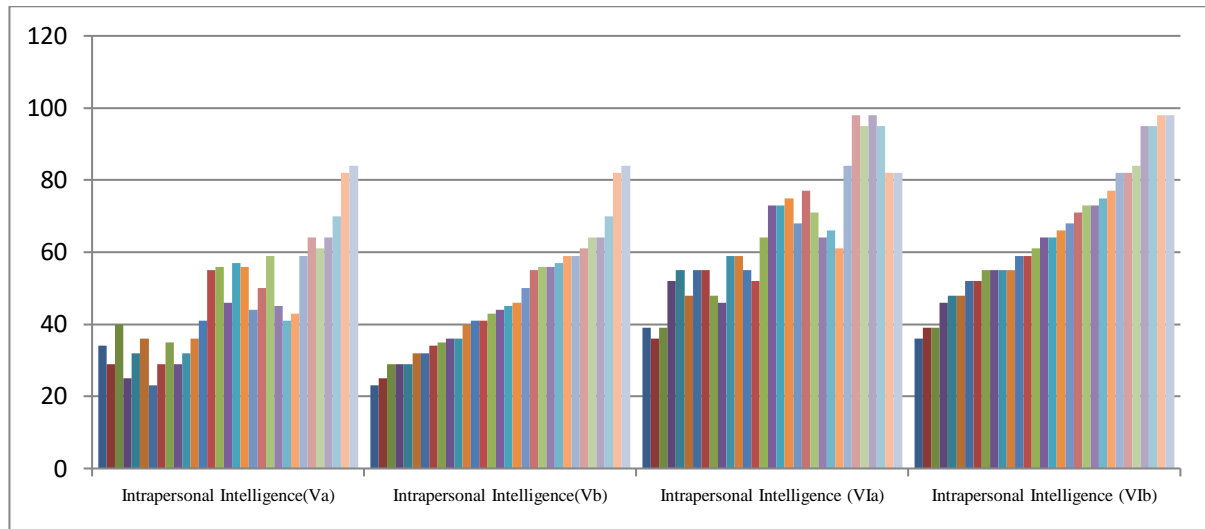
Figure 2. Intrapersonal intelligence for both groups from initial to final test from 5th to 6th grade (Va and VIa – experimental groups; Vb and VIb – control groups)

The representations of the interpersonal, intrapersonal and linguistic intelligence for both groups are shown in Figures 3 and 4.
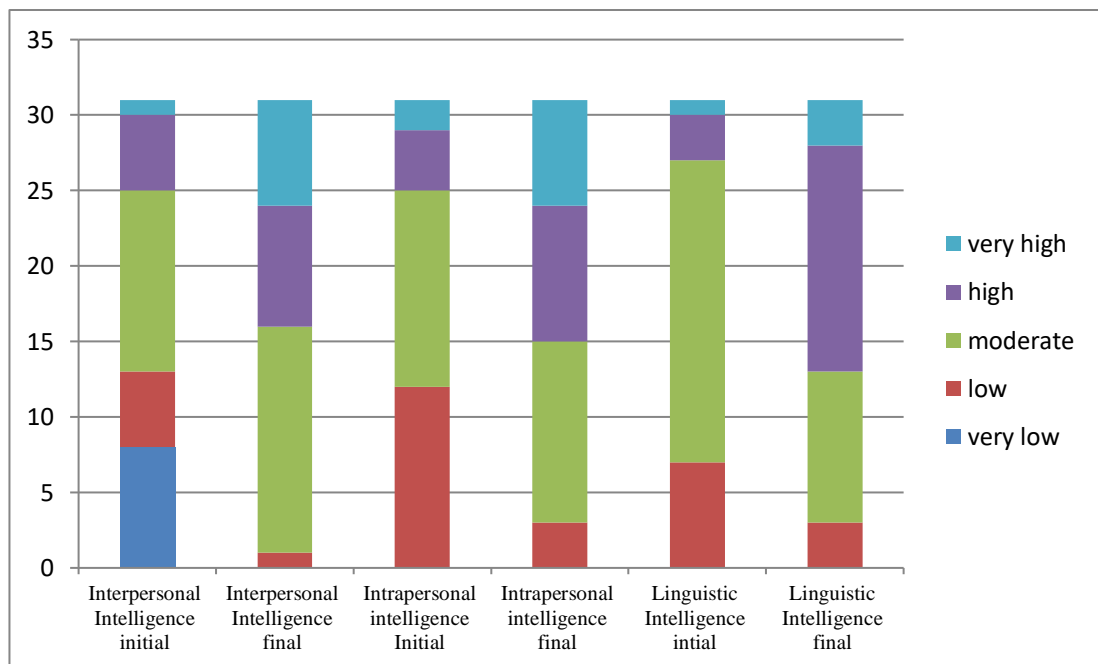

Figure 3. Group 1 experimental/perspective of interpersonal, intrapersonal and linguistic intelligence from initial to final MIDAS and from 5th to 6th grade secondary school

Graph 3 and Graph 4 show an overview for these types in relation to linguistic intelligence, which is a *sine qua non* condition for both communication and reflection, as well as expression of the individual's personality.
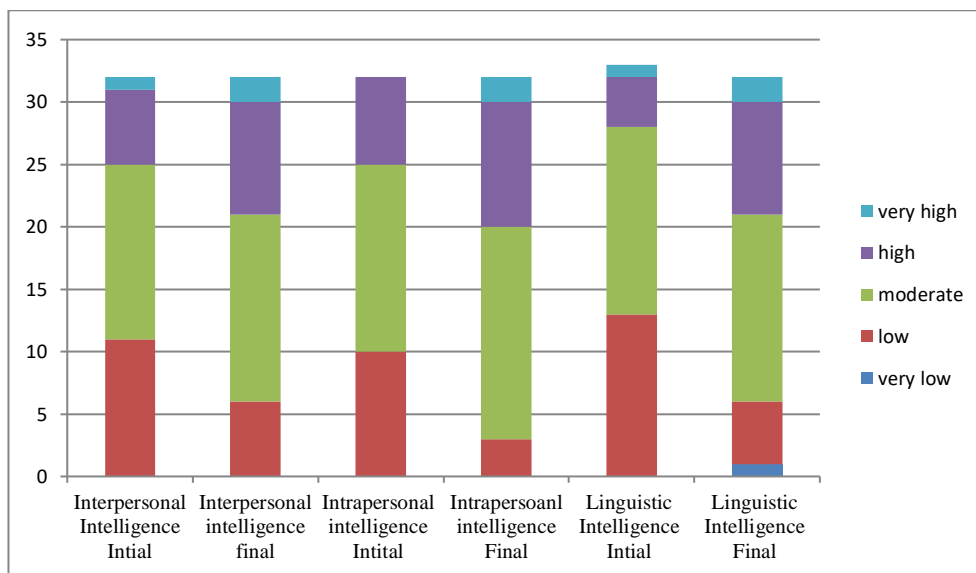
Figure 4. Group 2 control/perspective of interpersonal, intrapersonal and linguistic intelligence from initial to final MIDAS and from 5th to 6th grade secondary school

The tables offer a visual perspective of what the educational group or community of learners holds from the perspective of this type of potential. In the first instance, this type of panorama may be effective in helping educators to become aware of these potentialities rather than the statistical interpretations which anyway need to be tackled in conjunction with the graphical representations. The quantitative and qualitative discussions and approaches to the educational potential need to go hand in hand for a realistic and adequate practical approach to various educational and instructional activities based on these perspectives.

4. Social competences as the background for cultural and intercultural encounters

Although the concern of this study was linguistic and mathematical types of intelligence and didactic activities were focused on the aspects of the study from these curricular areas, the interpersonal and intrapersonal types raise interest in researcher as to when these types of intelligence begin to draw the attention of the individual, educators and society IS THIS WHAT YOU MEAN?. There are some questions on which one has to reflect. It is also important to have these questions in view as education is subjected to so many things, such as challenges in the curriculum and challenges posed by students, families, culture, society, economy, science and so on. One has to think that there are no answers or solutions without questions; therefore, the questions are as important as answers and solutions. One aspect that is relevant is what theory of development is adopted and to what extent the moral and social development of the child and/or student relates to the theories of Eric Erickson (1902–1994), Lawrence Kohlberg (1927–1987) and others, which may be adopted as general principles and frameworks into educational systems. Usually, elements from various theories are brought together and used without thinking; these act on elements which are not always synchronised in time with the moment that one or other theories emerged. Quite often, the results and effects of present-day educational actions are superficially evaluated and criticised based on elements, theories and standards that were not in use or did not even exist when the educational activity was initiated. In the same way, we judge interpersonal, intrapersonal and intercultural competencies based on a framework of competencies which emerged only in recent years. One needs to observe the lack of coordination when using and applying various frameworks and schemes to determine and emphasise or justify one aspect or another, whether a success or failure in the educational realm. This is why I prefer a reserved attitude when making assertions as to the relevance

of one dogma over another with regard to theoretical or practical issues in education and other domains as well. The quest for transversal competencies is not recent, but, in recent times, more progress has been made to apply it to frameworks and structures that may address a large variety of subjects and cultures worldwide (UNESCO, 2015). The profile of the two educational groups has made evident the presence and manifestation of these types of intelligence; therefore, the premises are where they have to be. The question is how much may a student be required to do within the educational process and how much can an educational system do at one time? Do our people, societies and cultures expect too much at once from both students and educational systems? One possible answer is 'Yes': it might be a side effect of the digital age, in which the use of devices by a simple click may be applied to students as well and we desire all in the blink of an eye – in other words in a click!

5. Relationships between intelligences

The application of multiple intelligences in secondary school first envisaged the possibility of enhancing motivation and school results. As such, the profiles generated from the MIDAS questionnaire were used in designing activities in the following subjects: Romanian Language and Literature, English Language and Mathematics. Observations of activities during Music classes, especially of students studying a musical instrument (piano in particular), completed the range of activities for the experimental group. A questionnaire was administered to parents, and the data from and about extracurricular activities completed the panorama of activities the secondary school students were part of and involved in. However, it needs to be emphasised that, at that moment, students were compelled to fulfill their duties as such, and these were specific to objectives of the education level they were part of. This was in concordance with opinions expressed by parents and educators, and there was a convergence in the sense that, at this moment, the main purpose is to perform as well as possible to progress in the desired direction, both from an educational and professional point of view, as time goes on. This does not mean that students, parents and educators are less aware of the cultural, intercultural and social competences. It is just a matter of how priorities are put in order for the time being according to the individual situation and the educational, cultural and professional perspective when the time for this comes. It would be realistic and practical to mention that the relationship between learning at this stage and the wider context of life-long learning is not absent nor estranged from this situation. I shall mention the fact that studies such as the early approaches of Botkin, Elmandjra and Malita (1981) consider anticipative and participative learning as well as innovative learning with components that refer to autonomy and integration. These are reflections of initiatives generated from the Club of Rome concerns and practice as well as based on the experience of the authors with the UNESCO. On the other hand, Malita together with Giarini continues these approaches to the problematic relationship between learning and profession in the *Double spiral of learning and labour* (Giarini & Malita, 2005); the authors underline it as an activity generated from the concerns of the Club of Rome as well as other international institutions and organisations such as UNESCO-CEPES. The interdisciplinarity and multidisciplinarity are viewed here as ideas that have to give way to transdisciplinarity, which tends to attenuate the classical delimitations between sciences and to adopt with courage methods applied in other subjects as is the case with '*mathematical music*'(Giarini & Malita, 2005, p. 35). Despite this, it does not mean that interdisciplinarity is cast away completely, as this is grounded in '*academic disciplines*', which does not intend to cancel them but to combine in a productive system of scientific cooperation (Giarini & Malita, 2005, p. 35). For Giarini and Malita, learning and labour have a parallel history (Giarini & Malita, 2005, p. 93): '*The parallel between education and labour can be identified in the evolution of classical economy but during the second half of the 20th century the pace of change has been reflected in what we call economic, social, and technological revolutions, as well as in the scales of values and mentalities*' (Giarini & Malita, 2005, p. 93). The students within the application are under the aforementioned conditions: a local, global, cultural and intercultural predicament IS THIS WHAT YOU MEAN?. Indeed, it is difficult to approach the wider context of future cultural, social and professional

perspectives as the educational curriculum has its own boundaries, but, sometimes, in the gradual pace of learning and development unexpected social, economic or cultural events enter, which forge ahead of the usual pace of events and which contribute to the early or deep maturity in unexpected ways. Sometimes, as mentioned before, intercultural experiences occur later after certain stages have been completed, and the beginning of a profession is taking place along with the experimentation on new cultural ground. In recent decades, this has become a more and more common experience as globalisation has taken hold. Such new situations have led to an increase in new dynamics within the educational curriculum and new approaches to intercultural education, social education and the accompanying set of competences.

6. Past, present and future perspectives of cultural and intercultural encounters as thoughts for educators

There is one question which does not have to be understood as an exaggeration of the individual situation, namely: How much does the individual change from the moment they commence on the educational path to the professional entry into one or other cultural and professional context? Are there any changes along the path of education and professional training and afterwards in the new environments and contexts? To return to the dialogue perspective, Tonoiu questions the problem of difference, otherness (alter ego) and intercultural dialogue (Tonoiu, 2005): '*Due to the haste and inattention, we often forget the capital role that it plays, in modern societies, the school universe, the schooling practices, I refer to their role in the internalisation of some schemes, skills, habits, cognitive, evaluative, etc. But this universe has a historical and cultural character, it is the source of 'exoticisms' and otherness depending on the referential in which you are. The reflection provided by the intercultural dialogue, as well as its exercise, have gained from the explanation of the various school universes in which we are trained. These, together with other social contexts, more or less concordant/discordant, account for the sedimentation, destruction and restructuring of some bodily, cognitive, evaluative skills and so on (…) we are too multi-socialised and multi-determined to realise our determinisms; we prefer to name it, self-flattering, 'liberated', 'free will', not once comfortable and empty abstractions*'(Tonoiu, 2005, p. 179). What is for sure is that students shift their emphasis from learning to getting acquainted with the maze of human and professional relationships and start to make use of interpersonal intelligence and intrapersonal social and transversal competences. It was quite evident that during the process of analysing the dynamics of learning (technical and innovative), the shift in the students' attitude changed from solving exercises (convergent thinking) to solving problems (divergent thinking), and it would not be too much to think of Piaget's stages of moving from the concrete stage to the symbolic stage of operations. It might be a similar situation when we think in terms of these two types of intelligence and the contexts in which they might applying real life, professional life, cultural life and everyday life in globalisation and deglobalisation.

Acknowledgements

References

Botez, A.(2005). *Postmodernismul in filosofie* (pp. 316–319). Bucuresti, Romania: Editura Floarea Albastra.
Botkin, W. J., Elmandjra M. & Malita M. (1981). *Orizontul fara limite al invatarii. Lichidarea decalajului uman* [*The horizon without limits of learning. Liquidation of human gap*]. Translated into Romanian by Tatiana Malita. Bucuresti, Romania: Editura Politica.

Club of Rome. Retrieved from https://en.wikipedia.org/wiki/Club_of_Rome

Giarini, O. & Malita, M. (2005). *Dubla spirala a invatarii si a muncii. [Double spiral of learning and labour]* (p. 35). Bucuresti, Romania: Editura Comunicare.ro.

Internet resources

Shearer C. B. (1999a). *Stepping STONES. A student's workbook for the multiple intelligences*. Columbus, OH: Printed by Greyden Press.

Shearer C. B. (1999b). *Stepping STONES. A teacher's workbook for the multiple intelligences*. Columbus, OH: Printed by Greyden Press.

Shearer C. B.(1999c). *The MIDAS handbook of multiple intelligences in the classroom*. Columbus, OH: Printed by Greyden Press.

Shearer, C. B. (1996). The MIDAS. *A professional manual*. Moraine, OH: JK Digital Publishing, LLC dba Greyden Press.

Shearer, C. B. (XXXX). *MIDAS for KIDS, "All About Me" questionnaire – translated into Romanian by the author for the purpose of the administration of the above mentioned application*.

Tonoiu, V. (1995). *Omul dialogal. Un concept raspintie. (The dialogue man. A boundary concept)*. Bucuresti, Romania: Editura Fundatiei Culturale Romane.

Tonoiu, V. (2005). *Despre diferente, alteritate si dialog intercultural. (On differences, otherness and intercultural dialogue)*. Bucuresti, Romane: Editura Academiei Romane.

UNESCO. (2015). *Asia-Pacific Education Research Institutes Network (ERI-Net) Regional Study on Regional Synthesis Report Transversal Competencies in Education Policy & Practice (PHASE I)*. Regional Synthesis Report. United Nations Educational, Scientific and Cultural Organization 7, Place de Fontenoy, 75352 Paris 07 SP, France and UNESCO Bangkok Office © UNESCO 2015 ISBN: 978-92-9223-509-3 (Electronic version).