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Contents

Quantifying teacher Professional Community in 36 countries – a test for measurement invariance using the Multiple-Group Confirmatory Factor Analysis (MGCFA) method

Lomos Cătălina [1]

Abstract: This study presents the results of a test of the professional community latent concept for measurement invariance in 36 countries and more than 58000 teachers, using the International Civic and Citizenship education Study (ICCS 2009). The Multiple-Group Confirmatory Factor Analysis was used for this analysis. Teachers become part of a professional community when they agree on a common school visions, engage in reflective dialogues and collaborative practices, and feel responsible for school improvement and student learning. The study discusses the implications of having (or not having) an invariant measure of the concept for quantifying and comparing the teacher professional community practices in the different countries involved. We establish that the latent concept of professional community can be meaningfully discussed in 35 countries, excluding Liechtenstein. In addition, in 34 countries all the items that represent the five specific dimensions are strongly related to the latent concept of professional community, except for the reflective dialogue item in Switzerland. As regards scalar invariance, we identify many noninvariant intercepts in different countries, especially for items measuring the dimensions of the deprivatisation of practice and collaborative activity, allowing to compare the professional community mean practices in 23 countries only, within partial scalar invariance.

Keywords: The Latent Concept of Professional Community; Multiple-Group Confirmatory Factor Analysis (MGCFA); Cross-Cultural approach

1. Introduction

Professional communities have been studied separately in individual countries, but the large-scale international studies and reports, such as the Trends in International Mathematics and Science Study (TIMSS) or Progress in International Reading Literacy (PIRLS), take also the comparative approach on the school processes that relate to student performance (e.g. Isac, da Costa, Araújo, Soto Calvo, & Albergaria-Almeida, 2015; OECD, 2014). However, before we compare the scores of such latent school processes across countries, the issue of measurement

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equivalence needs to be approached, valid comparisons being conditioned by invariant measurements. More specifically, we can only perform valid comparisons of latent constructs after we make sure that the scores we are comparing are only dependent on the latent concept of interest and not on measurement noninvariance (Billiet & Welkenhuysen-Gybels, 2004).

2. Theoretical background

The concept of professional community and its measurement

Considering that teachers' collaborative work within schools encompasses many activities and facets, authors such as Bryk, Camburn, and Louis, (1999) or Louis, Marks, and Kruse, (1996) concluded that the latent concept of professional community is a multidimensional one, covering different aspects of teacher interaction. Regarding the dimensions of the latent concept of professional community, Kruse, Louis, and Bryk, (1995) ''designated five interconnected variables that describe what they called genuine professional communities in such a broad manner that they can be applied to diverse settings'' (Toole & Louis, 2002, p. 249). These five dimensions used to define one overarching latent concept have been identified by these and by other authors to be *reflective dialogue, deprivatisation of practice, collaborative activity, shared sense of purpose* and *a collective focus or responsibility for student learning*.

Measurement equivalence, a necessary test for comparisons across countries

There are different stages in establishing measurement equivalence, going from less restrictive to more restrictive models, in a bottom-up approach (van der Veld & Saris, 2011). A first stage is 'configural invariance, which means that "the latent concept can be meaningfully discussed in all countries, but it does not guarantee any cross-cultural score comparability" (Meuleman & Billiet, 2012, p.9). In technical terms, configural invariance checks whether the items measure the latent concept they are intended to measure (van der Veld & Saris, 2011) and whose confirmation allows one to say that we have the same factors and the same structure in all groups. The second stage is 'metric invariance', whose confirmation allows to evaluate and compare the presence and size of the relationships of the concept of interest with other concepts of interest across groups. In technical terms, at this higher stage the factor loadings are restrained to be the same in all groups. If full metric invariance does not hold, partial metric invariance will show us in which countries one or more items is hardly measuring the concept of professional community. And finally, in order to be able to reliably compare the presence of professional community between countries, we need to establish 'scalar invariance. 'Scalar invariance' allows to compare and to test the difference between the average degree of participation in professional community across the countries. It is a strong equivalence level, which implies that both the loadings and the intercept parameters are equal in all groups. Full scalar invariance will establish not only that the concept can be meaningfully discussed in all countries, that the items are strongly related to the latent concept they are measuring in all countries, but also that the level of participation in each professional community

dimension is the same for all countries, given their general level of participation in professional community. If full scalar invariance does not hold, partial scalar invariance will show us in which country and for which item, more or less initial perceived participation is manifested, given the general level of participation in professional community across all countries.

3. Method

Data and variables

In the ICCS 2009 teacher questionnaire there are five items, common to all teachers in all modules, which refer to dimensions of the latent concept of professional community. Namely, the teachers were asked how many teachers in their schools, with reference to the current school year:

- *Support good discipline throughout the school even with students not belonging to their own class or classes?* (*Collective Responsibility*/CR)
- *Work collaboratively with one another in devising teaching activities?* (*Reflective Dialogue*/RD)
- *Take on tasks and responsibilities in addition to teaching (tutoring, school projects, etc.)?* (*Deprivatisation of Practice*/DP)
- *Actively take part in <school development/improvement activities>?* (*Shared sense of Practice*/SP)
- *Cooperate in defining and drafting the <school development plan>?* (*Collaborative Activity*/CA)

These items, presented in the order they appear in the original questionnaire, refer to teachers' practices embedded into the five dimensions of the overarching latent concept of professional community. The five items were measured using a four-point Likert scale, going from "all or nearly all" to "none or hardly any". For the analysis, all indicators were inverted in order to interpret the high-numerical values as an indication of high presence of professional community practices. After listwise deleting around 3.5% of the missing completely at random data across all items and all countries, the analysis was performed on 36[2] countries and more than 58000 8th grade teachers (sample size per country is presented in Table 6 of this paper).

Figure 1 shows the model that will be tested in order to establish the measurement invariance of the latent concept of professional community across countries.

[2] The countries in the European module are Austria (AUT), Belgium (Flemish) (BFL), Bulgaria (BGR), Cyprus (CYP), Czech Republic (CZE), Denmark (DNK), England (ENG), Estonia (EST), Finland (FIN), Ireland (IRL), Italy (ITA), Latvia (LVA), Liechtenstein (LIE), Lithuania (LTU), Luxembourg (LUX), Malta (MLT), Norway (NOR), Poland (POL), Slovak Republic (SVK), Slovenia (SVN), Spain (ESP), Sweden (SWE), and Switzerland (CHE); the countries in the Asian module are Chinese Taipei (TWN), Hong Kong SAR (HKG), Indonesia (IDN), Korea (KOR), and Thailand (THA); and in the Latin American module included Chile (CHL), Colombia (COL), Dominican Republic (DOM), Guatemala (GTM), Mexico (MEX), and Paraguay (PRY). The Russian Federation (RUS) and New Zealand (NZL) are also part of the countries involved, amounting to a total of 36 countries. Greece and the Netherlands have no teacher data available.

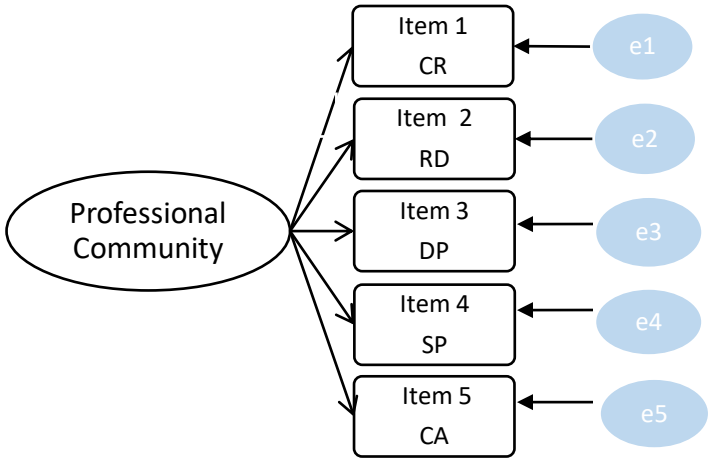

Figure 1. The model to be tested

Method and model fit indices

Multiple-Group Confirmatory Factor Analysis (MGCFA) will be used to test the measurement invariance (Billiet, 2003; Steenkamp & Baumgartner, 1998; Meuleman & Billiet, 2011) and the observed indicators are modelled as linear functions of the latent variable. The bottom-up approach will be taken (van der Veld & Saris, 2011), and full configural, metric and scalar invariance will be tested, starting from less restrictive models towards more restrictive ones. If full metric or scalar invariance is not achieved, a partial invariance will be tried as well, keeping at least two items invariant per latent construct (Byrne, Shavelson, & Muthén, 1989). Misspecifications of the model, at each level of tested invariance, will be identified and accounted for as well. As a first step, Confirmatory Factor Analysis (CFA) will be performed in each individual country to observe if the latent concept model would have a good model fit in each country. The Mplus 7.1 program was used to obtain the estimations and the model fit indices, and the JRule program (Saris, Satorra & van der Veld, 2009; van der Veld & Saris, 2011) to detect misspecifications and to consider in the model all modification indices recommended.

ICCS 2009 implemented a complex, two-stage, survey design, which implies that sampling teacher weights were taken into account to obtain unbiased estimates of the sampling error (Desa, 2014). Stratification and cluster variables were applied to the model as well to account for the complex sampling design and for correlated errors within strata and clusters.

4. Results

Invariance testing

As a first step, the individual-country CFA showed that specific decisions needed to be taken before proceeding with testing the multi-group measurement invariance. The model fit indices are satisfactory when running the CFA model across all 36 countries (RMSEA = .029, CFI = .963, SRMR = .027) and satisfactory in terms of the set level of the fit indices in other 22 countries. However, in Austria, Estonia, Ireland, New Zeeland and England, one to two model modifications were necessary in each country, allowing up to 8 error terms of two pairs of items to correlate in order to obtain a satisfactory model fit within these individual countries. The details of the modifications are presented for information in Table 1 (Table 1 can be provided on request to the author), and these modifications were allowed when running the full configural model across all countries. And finally, Liechtenstein, with only 112 participating teachers, did not show a satisfactory CFA model fit (RMSEA = .177, CFI = .799, SRMR = .061) and no specific modifications indicated by JRule, so the country was dropped from further analyses, reducing the total number of countries to 35 for all results presented next. Considering that no model modifications were recommended, we think that sample size might be the principal source of the unsatisfactory model fit for Liechtenstein.

The fit indices indicate a satisfactory model fit for the full scalar invariance model (Model A, Table 2), and when applying the additional alternative model evaluation procedure (following van der Veld & Saris, 2011) to inspect possible misspecifications of the model, no such misspecifications for the full configural model were detected.

Table 2. Results of Configural invariance testing

Model		Compared Model	χ^2 (df)	RMSEA	ΔRMSEA	CFI	ΔCFI
A	Full configural invariance (CFA – with 8 error terms correlated for 5 countries)		1533.40 (167)	.070		.968	

Note: Minimum CFI acceptable fit .90; Maximum RMSEA acceptable fit .08; *ΔCFI* <=|.01|; *ΔRMSEA* <=|.01| ; N = 58259; 35 countries; Details about the freed parameters can be requested from the author.

In a subsequent step, full metric invariance was tested and the fit indices are presented in Table 3 (Model B). Looking at the absolute differences in fit indices, we see that they are within satisfactory margins. However, when applying the additional alternative model evaluation procedure (following van der Veld & Saris, 2011) to inspect possible misspecifications of the model at the level of metric invariance, one such misspecification was detected (details in Table 1 in the Appendix, MGCFA Measurement invariance testing, Metric).

Table 3. Results of Metric invariance testing

Model		Compared Model	χ^2 (df)	RMSEA	ΔRMSEA	CFI	ΔCFI
B	Full metric invariance	A	2161.77 (303)	.061	.009	.956	.012
B_1	Partial metric invariance (free loading Item_RD for Switzerland)		2128.74 (302)	.060	-	.957	-

Note: Minimum CFI acceptable fit .90; Maximum RMSEA acceptable fit .08; *ΔCFI* <=|.01| ; *ΔRMSEA* <=|.01| ; N = 58259; 35 countries; Details about the freed parameters can be requested from the author.

Giving more detail into the model modifications identified for metric invariance, Table 4 presents the estimated slope parameters (factor loadings) and we can see that only one slope parameter deviates from the common solution for the final model. The common solution is specific for these countries considered in this model. It is the slope parameter for the *Reflective Dialogue* (RD) item in Switzerland, the low factor loading indicating that *working collaboratively with one another in devising teaching activities* is hardly related to the latent concept of professional community. It seems that in Switzerland the identification of the *Reflective Dialogue* (RD) item with the latent concept of professional community is weaker than in the other countries.

Table 4. Slope parameter estimates for the final model

	Item CR*	Item RD	Item DP	Item SP	Item CA
Switzerland		0.775			
Common solution for the model					
Slope parameters	1.000	1.232	1.400	1.577	1.379

Note: *Marker item (fixed to identify the model); N = 58259; 35 countries;

As regards metric invariance, we can see that partial metric invariance holds for 35 countries (Model B_1, Table 3). Looking at the model fit indices, we see that freeing the deviant factor loading for Item_RD for Switzerland does not make a considerable difference compared to the more restrictive metric model, but freeing it is nevertheless recommended.

In addition to the aforementioned model modifications, the intercept of Item_RD for Switzerland was freed (following van der Veld & Saris, 2011) and the scalar invariance model was run. Table 5 (Model C) clearly shows that full scalar

invariance does not show a satisfactory model fit. Applying the additional alternative model evaluation procedure (following van der Veld & Saris, 2011) to inspect the misspecifications of the model, 37 additional noninvariant intercepts were found across the countries (details in Table 1 which can be provided on request to the author, MGCFA Measurement invariance testing, Scalar).

Table 5. Results of Scalar invariance testing

Model		Compared Model	χ^2 (df)	RMSEA	ΔRMSEA	CFI	ΔCFI
C	Full scalar invariance	B_1	9478.20 (437)	.111	.051	.787	.170
C_1	Partial scalar invariance (38 free intercepts for 30 countries)		3913.49 (400)	.073	-	.917	-

Note: Minimum CFI acceptable fit .90; Maximum RMSEA acceptable fit .08; *ΔCFI* <=|.01|; *ΔRMSEA* <=|.01| ; N = 58259; 35 countries; Details about the freed parameters can be requested from the author.

As regards scalar invariance, some countries have higher or lower intercepts for the different items, as seen from the deviating parameters from the common solution for the final model presented in Table 6.

Table 6. Intercept parameter estimates for the final model

Country	Sample size	Item_CR*	Item_RD	Item_DP	Item_SP	Item_CA
AUT	949					
BFL	1582		2.981			
BGR	1813					
CHL	1698				3.014	2.917
TWN	2335					
COL	1954	2.847				2.792
CYP	875	3.369		2.512		
CZE	1557	3.356				
DNK	882					
DOM	715			2.495		2.896
ENG	1408					
EST	1745			2.336		2.822
FIN	2247				2.452	
GTM	1013				2.974	
HKG	1413	2.731				
IDN	2035			2.055	2.428	
IRL	1810					2.768

ITA	2846		2.909				
KOR	2266			2.477			
LVA	1994		2.459	2.474			
LTU	2669		2.290				
LUX	272						
MLT	862	2.806					2.787
MEX	1816	2.817					2.735
NZL	1297						
NOR	482		3.288	2.501			
PRY	1096				2.955		2.820
POL	2044						
RUS	2964			2.278			
SVK	1948			2.456			
SVN	2698						2.781
ESP	1934						2.796
SWE	1864						2.873
CHE	1416		2.445				
THA	1742			2.479			
Common solution for the final model							
Intercepts		3.110	2.681	2.643	2.684		2.594

Note: *Marker item (fixed to identify the model); N = 58259; 35 countries;

A higher/lower intercept value indicates, in general, that given the common level of participation in professional community across all countries involved, whether teachers are more or less initially involved in a specific practice, in some countries more than in other countries (following Meuleman & Billiet, 2011). Usually the intercepts could reflect initial country differences, determined by other characteristics different than the professional community practices. To be more specific, for the item reflecting a *Collective Responsibility*, we see that fewer teachers in Colombia, Hong Kong, Malta and Mexico, given the common level of participation in professional community, indicate initially to support good discipline throughout the school even with students not belonging to their own class than in the other countries; while more teachers in Cyprus and the Czech Republic support good discipline throughout the school than in other countries. The deviating intercepts for *Reflective Dialogue* indicate that only in Latvia, Lithuania, and Switzerland, fewer teachers report an initial level of working collaboratively in devising teaching activity than is expected from the average level of participation in professional community. In Italy, Belgium (Flemish), and Norway, the reversed pattern is found for the *Reflective Dialogue* item. For the *Deprivatisation of Practice* item, which refers to taking on tasks and responsibilities in addition to teaching, such as tutoring or school projects, we see that fewer teachers than expected considering the general level of involvement in professional community, take on such tasks,

in all countries with deviating intercepts presented in Table 6, majority being Eastern European and Asian countries. This is the only item for which all deviating intercepts indicate less initial perceived level of involvement of teachers in *Deprivatisation of Practice*, than it is expected from the cross-cultural level of participation in professional community. For the item representing a *Shared sense of Purpose*, the pattern is more diverse, with more teachers in Chile, Guatemala, and Paraguay, reporting a higher perceived initial level of taking actively part in school development plans and improvement activities, while the reversed pattern occurs for Indonesia and Finland. For the *Collaborative Activity* item, as for the *Deprivatisation of Practice* item but in a reversed direction, the pattern is the same for all countries in Table 6, all deviant intercepts indicating this time that more teachers than expected considering their general level of involvement in professional community, report a higher initial level of collaboration in defining and drafting the school development plan or other development schemes. It seems that it is quite common for almost all Latin American countries, namely Chile, Paraguay, Dominican Republic, Colombia and Mexico to have this pattern, together with a few European countries.

After freeing 38 intercept-related equality constraints which caused substantial misfit, we see a satisfactory model fit for the partial scalar invariance (Model C_1). A main point in Table 6 is that each country has at least two invariant intercepts per construct, indicating that the latent mean difference is identifiable. To summarize, in Table 6 we can see that ten countries have a deviant intercept for the *Deprivatisation of Practice* (DP) proxy item and 11 countries have a deviant intercept for the *Collaborative Activity* (CA) proxy item. Items proxy for *Reflective Dialogue* (RD) and *Collective Responsibility* (CR) have around 6 countries each with a deviant intercept. Choosing *Collective Responsibility* item (CR) (the fixed loading) and *Reflective Dialogue* item (RD) (the free loading and intercept for Switzerland) as the two invariant items across all groups (Byrne, Shavelson, & Muthén, 1989), partial scalar invariance holds for only 23 countries, as it can be seen in Table 6.

Respecting the results of the measurement invariance testing, we are able to compare the average scores of the professional community concept only in 23 countries[3] and not for all 36 countries initially considered.

Conclusion and discussion

The aim of the present article was to establish whether the measurement of the professional community concept, as present in this data and in accordance with the theory on the concept, can be meaningfully discussed in 36 countries and whether its metric and scalar equivalence allows for meaningful comparisons of these practices across the mentioned groups.

As regards measurement equivalence, we have established that the latent concept of professional community can be meaningfully discussed in all 35 countries, excluding Liechtenstein based on the country-specific CFA results.

[3] The countries are AUT BGR CHL TWN DNK DOM ENG EST FIN GTM IDN IRL KOR LUX NZL PRY POL RUS SVK SVN ESP SWE and THA (see Footnote 2 for the abbreviations).

Moreover, in 34 countries all the items representing the specific dimensions are strongly related with the latent concept of professional community, being now confident that these dimensions are appropriate in measuring the concept as it is defined in this study. The only exception was Switzerland, where the item *working collaboratively with one another in devising teaching activities* that represents the *Reflective Dialogue* dimension seems to have a weaker relation with the latent concept, and we therefore allowed this item to vary for Switzerland when estimating the partial metric equivalence model. This exception could be explained by the fact that teachers in Switzerland receive reflective supporting measures for lesson development to structure teaching separately from team development to promote cooperation, communication, and collegiality (Eurydice, 2013). Achieving partial metric equivalence for all 35 countries, will allow further research to validly compare relationships of the latent concept of professional community, measured through these five items in this data, with other relevant related organisational characteristics.

As regards scalar invariance, the large number of noninvariant intercepts indicate that teachers in some countries report a higher or a lower perceived initial level of involvement in specific professional community practices than expected, given the common level of participation in each specific practice across all 35 countries. To mention that these deviant intercepts are specific to this group of countries, the common solution might differ if a different group of countries is tested. Item 3 in Figure 1 proves noninvariant in its intercept in most countries, item referring to teachers taking on tasks and responsibilities in addition to teaching, implying feedback through tutoring or school projects, as a proxy for the *Deprivatisation of Practice* (DP) dimension. We see that fewer teachers than expected report taking on such tasks, considering the general level of involvement in professional communities, usually in term of intercepts determined by other characteristics than the professional community practices. The majority of countries that present a lower initial participation level in *Deprivatisation of Practice* practices are European countries (Cyprus, Slovakia, Latvia, Estonia, Russian Federation, Norway) and a few are Asian countries (Thailand, Korea, Indonesia). This finding is in accordance with the outcomes of many other studies performed within individual countries (De Neve, Devos, & Tuytens, 2015; Lomos, Hofman, & Bosker, 2011; Lomos, 2012) or across many countries (Isac, da Costa, Araújo, Soto Calvo, & Albergaria-Almeida, 2015; OECD, 2014; Vieluf, Kaplan, Klieme, & Bayer, 2012), *Deprivatisation of Practice* being the professional community dimension less practiced by teachers. This clear pattern might be influenced by the specific regulations in different countries, where such tasks could be compulsory/not compulsory, implying/not implying a reduction in teaching time, or are remunerated/not remunerated (Eurydice, 2013). In some countries, mainly in Western European countries, being tutored by an experienced teacher is compulsory for beginner teachers, which implies that experienced teachers are involved in such deprivatisation activities, even if not in collaboration with all teachers. It might also be determined by the specific school culture, where most teachers understand their activities as individual and do not feel comfortable in sharing or deprivatising their practice and knowledge through school projects, tutoring, or other such activities.

In addition, the item referring to *cooperating in defining and drafting the school development plan*, as a proxy for the *Collaborative Activity* dimension, proved also noninvariant in many countries, indicating that more teachers than expected report higher their general initial level of involvement compared to the general level of all countries considered. It seems that this is quite common for almost all Latin American countries, such as Chile, Paraguay, Dominican Republic, Colombia, and Mexico, together with a few European countries. Again, this result is comparable with results from other studies, where collaboration appears to be the most common professional community practice, next to reflection (Isac, da Costa, Araújo, Soto Calvo, & Albergaria-Almeida, 2015; OECD, 2014; Vieluf, Kaplan, Klieme, & Bayer, 2012). Even if the Latin American countries do not have a common framework for operating schools, there seem to be specific measures in place in each country which support schools in creating their own syllabus and school development plan, with teachers having significant autonomy to create such a common school plan in cooperation with each other. Such programs are the "Escuelas de calidad" in Mexico, 2001, where the participating schools had to train their teachers in accordance with the school project (Secretaria de Education Publica, 2015); or, for example, in Colombia, law 0115 from 1994 (General Law of Education, 2015) which defined the institutional school projects, establishing that schools will have to advance their own development plan, based on the nationally defined performance indicators for each level.

To summarise the results of the scalar invariance test, in most of the deviating situations, we tend to see a pattern, mainly related to the continent the country belongs to. For example, we see for the items referring to *Reflective Dialogue* and *Deprivatisation of Practice* a clear European presence, and for the items referring to a *Shared sense of Purpose* and *Collaborative Activity*, a clear presence of the Latin American countries. In addition, for the *Reflective Dialogue* dimension we see only European countries. In this case, partial scalar invariance was established for 23 countries out of 35, indicating that the latent average participation in professional community can be meaningfully compared across 23 countries, taking into consideration the model modification indices considered.

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The role of emotional capital on initial students teacher training

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Abstract: This paper presents partial results of an experimental research-action part of a national scientific project implemented between 2014-2019 at the University Paul Valery. The principal objective is to develop emotional capital of freshmen of Faculty of Sciences Education. In their initial training, two approaches – European tool of Project Management and Mindfulness and Acceptance and Commitment Training were used in order to help students become more flexible, to identify and regulate suitably their emotions and to develop efficient and adaptive relationships with others.

Keywords: emotional capital, emotional competencies, freshmen students, Mindfulness, ACT.

1. Introduction

The role of universities in initial teachers' training, the acquisition of professional competencies, as well as the articulation between academic courses and practice in schools is decisive. What students learn there as relevant, how they manage relations with teachers, how they connect with their future job and responsibilities, how they handle stress are essential for their further personal and professional decisions. In the last years, multiples factors such as time, absence of motivation, number of students or inability to properly respond to different educational circumstances, modify some functions and professionals competencies and demand a quick and efficient adaptation. As Gendron and Lafortune (2009) argue, changes in education create tensions that disturb practical, management and functional teachers' models.

Previous researches outline that teaching is a profession that engages considerable emotional labor (see Schultz & Zembylas, 2009; Harris, 2007; Kelchtermans, 2009; Hochschild, 2003; Nias, 1996). Managing and regulating emotions become crucial competences that discriminates those who stay from those who leave the system.Despite their professional experience, a large number of teachers feel helpless and incapable in contact with difficult and spontaneous educational situations. Schultz and Zembylas (2009) outline that the consequences are not to ignore, due to reports that estimate that nearly 50% of teachers entering the profession leave within the first 5 years.

Actual challenges in educational field highlight the need of an efficient management of emotions, correlated with specific competencies, until now less known and valorized in educational practice – called *emotional competences* and specific to an *emotional capital* (Gendron, 2004). Improving these competences to teachers through initial training can no more be an option, but an exigency, appreciates Letor (2009) who defined them as part of permanent

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conditions of a relational profession which is constructed with and for the students, a profession that demands intellectual, cognitive, affective, emotional and ethics characteristics both from teachers and students.

In this context, since 2014, more then 130 first year university students per yearfrom the Faculty of Education Sciences, future teachers and educators,are direct beneficiaries of a program entitledEmotional Capital, Well Being, Performance and Health. This program is part of a national scientific project Initiatives of Excellence in Innovative Training, aimed at preparing and facilitating the integration of first year university students and at participating to their success through the development of relevant emotional competencies and capital. Developing their emotional capital can be advantageous in demanding emotional circumstances, such as independent living, new academic or professional environments or for new teachers managing a stressful work situation (see Gendron, 2004; Gendron et al., 2016).

The program continues for a 5-year period in order to identify best strategies and to compare main results for different generation surveyed after their first year till their professional integration. Using two methods:aProject Management Methodology (PIA2) and an Acceptance and Commitment Training (ACT')derived from the Acceptance and Commitment Therapy (ACT), the objective is to improve trainees' social and personal emotional competencies (see Schoendorff et al., 2011; Gendron et al., 2016). Preliminary observations after the first two years intervention outlined positive changes such as a better mental health, higher flexibility, and abetter stress and anxiety management.

In this article, we will present and develop the concept of emotionalcapital, declined in emotional competencies and we will discuss main results and conclusions in this phase of the program.

2. **Emotional capitalin education and development**

During the last years, psychologically based theories have specified influential clarifications of how emotional experience is produced and how it affects behaviors and learning processes and life's construction (see Goleman, 1995). More, emotions represent an important source to understand human connections and the environment where they leave and function. Without them, the information received or send is incomplete. Each moment, emotions socially communicate what a person search in her environment, how does she evaluateher self and the others and what are the fears or the challenges she must face with (Smith & Lazarus, 1990). We cannot ignore the role that emotions play in economic theory, if well managed and used. The ability to recognize, to understand, to express and regulate emotions help us to develop better relationships, to take efficient decisions or to cope with difficult life experiences can influence decisive our personal and professional life.For a better description of our theoretical approach, we will present next the significance of emotional intelligence and emotional competencies in the development of emotional capital.

From Emotional Intelligence and Emotional Competencies to Emotional Capital

Goleman,who was the first who popularized the concept of *emotional intelligence*, argued that emotional life is a dominant that can be managed with more or less talent and that require a unique set of competencies-*emotional competencies* (Goleman, 1995). Individuals whoimprovedtheir emotional capacities or competencies have more chances to be satisfied with their lives, to be more efficient, to control their impulsiveness in order to concentrate to their own work. Later, he outlined that emotional competencies are job skills that can, and indeed must, be learned. He propose a refined framework of emotional competencies where he identified four domains: self-awareness, self-management, social-awareness, and relationship management and recognize them as an adding value to performance (Goleman, 2001).

Gendron argued that this set of emotional competencies (EC) compounds the *emotional capital* (EK) defined as the set of resources that is inherent to the person, useful for personal, professional and organizational development, and participates in social cohesion and has personal, economic and social returns (Gendron, 2004, 2008). Thus, if technical competencies or experiences, referring to the concept of Savoir-faire [knowing what to do, technical skills] and in general knowledge to Savoirs [knowledge], those two measurements constitute the Becker's (1975) human capital as it has been measured, the set of emotional competencies, which has not been taken into account in Becker's measurement, referring to Savoir-être [knowing how to be and behave] (see Figure 1), constitute the *emotional capital* (Gendron, 2004) which has to be highly considered in education and in work place.

Emotional competencies,as other competencies, can be developed and learned (Gendron, 2004) but required a special pedagogy: active, interactive and experiential learning and pedagogy. This pedagogy is about creating learning environments and involving and connecting students to the subject matter they learn about (Dewey, 1938). At least for a successful learning process helping at developing emotional capital, Gendron (2010, 2013a) revisited the learning function or equation for the successful learning function as following: f(successful learning equation) = f(affect, cognition, conation) which implies different pedagogies and active pedagogy as well.

Different emotional competencies developed through experiences will have animproved effect on individual personality and different returns in personal and professional life. But not all children are exposed since the early age to the same favorable contexts of a balanced development. Those differences of exposure can be a start of inequities in educational contexts and formation; at the opposite, those who are well exposed and equipped of the ad hoc emotional competencies can better succeed. Because of the recognized impact of emotional competencies on performance and on the learning process, they have to be considered as part of the human capital in a broader sense and in its measurement.

Emotional capital as a set of emotional competencies (see Petrides, 2009; Goleman, 2001; Salovey & Mayer, 1990) is developed and provided since the early age until adulthood in informal contexts, in personal and social environments as family, neighborhood, peers, communities, societies and school contexts.

Because social environments include the groups to which people belong, the neighborhoods in which they live, the organization of their workplaces, and the policies created to order their lives, it differs from one person to another.

Regarding its effects or returns, neurosciences (see Damasio, 1995; OECD rapport, 2002), reporting on the brain and learning process, brought the evidence that emotional competencies impact the learning process (Gendron, 2013b).

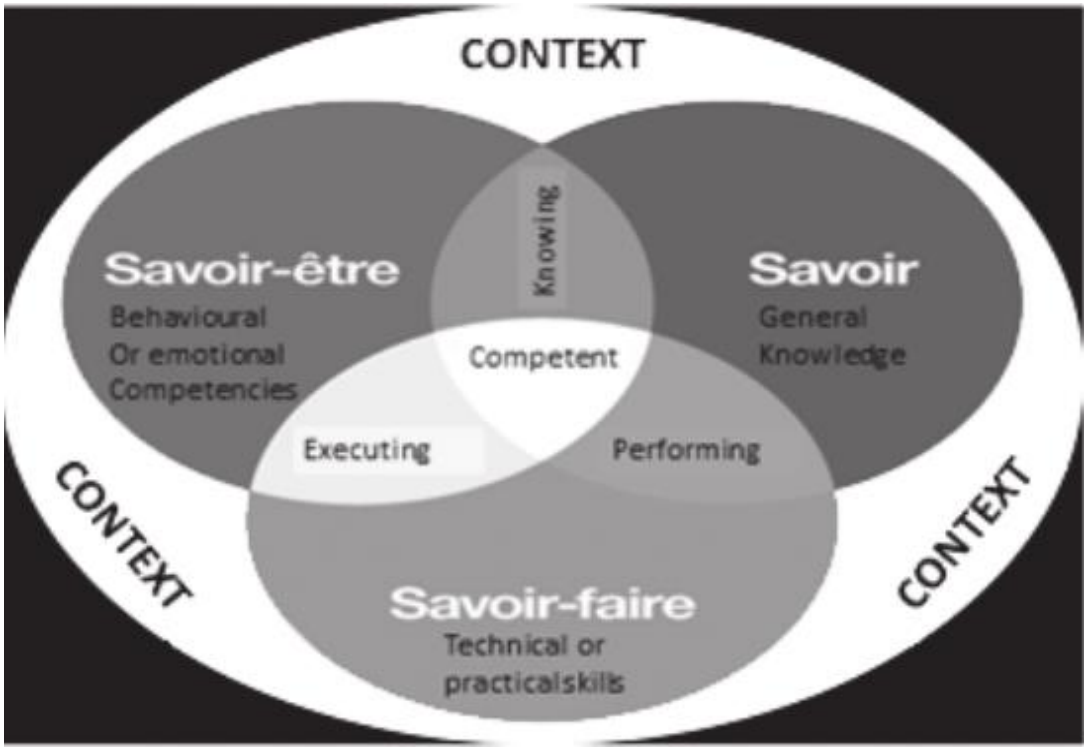

Figure 1: Being competent (Gendron, 2008)

According to the capacity of regulation of emotions, an appropriate emotional capital can facilitate the learning process. Considering school performance and failure, students with too high-esteem can be counter-productive in certain situations where modesty should be appropriate to question him-or-herself regarding his/her own failure. At the opposite end, a too low self-esteem or a lack of self-confidence can impede people to progress or lead to self-censure.An emotional capital that is equilibratedcan help individualsto achievehis best potential in the classroom and as future workers at the workplace. His importance becomes decisive for general wellbeing and success in life and indicatesthe basis for self-improvement, development, and lifelong learning, as well as being able to create efficientconnections with others (see Gendron, 2008). Stress at work affects more and more persons, their health and performance and many factors can explain this situation: external factors, environment, management but also internal factors such as the absence of personal resources necessary in different situations. In a time where teaching is considered one of the most stressful professions,recognizing and managing emotions represent a longterm solution to assume professional responsibilities with perseverance and commitment, despite everyday challenges (Day &Quing, 2009).

3. Developing emotional capital of students' teachers through initial training program

*Study design.*The project Emotional Capital, Well Being, Performance and Healthis part of a national scientific project entitled Initiatives of Excellence in Innovative Training. The program is implemented at the University Paul Valery Montpellier 3 between 2014-2019 and is addressed to first year university students of Faculty Science Education, future teachers and educators, aimed at developing their emotional capital and competences. It proposed the hypothesis that a better emotional capital referring to a set of emotional competencesfacilities a better stress management and, indirectly higher performance and efficient integration in labor market and a better mental health and social cohesion. The program was integrated as part of their annual curricula for second semester. The main objective was to develop students' emotional capital: to increase their self-esteem, self-awareness and conscience, stress management, empathy…. The experimental research is based on a traditional scientific design: two groups – an experimental group and a control group with data collected pre and post intervention. For ethical reasons the control group received the ACT' training after the end of the experimental'and data collecting' period. This year, the project finishes its second year with results that are still preliminarybut canprove that increasing emotional capital supports and allows a better resilience, a better stress and anxiety management.

During project intervention, emotional capital is developed using an active pedagogical approach incorporating acceptance and engagement trainingand project management tools. The first approach, *acceptance and engagement training* (ACT'), is derived from acceptance and engagement therapy which postulates that behavior and cognitive avoidance constitutes the main reason for psychological suffering and negative feelings. ACT proposed a new vision that stipulates that suffering is not a sign of pathology (Schoendorff et al., 2011) but an integrative part of human experience. Thus, the aim is not to reduce symptoms or to eliminate the events that generate the suffering but to increase the psychological flexibility in order to accept them (thoughts, perceptions, sensations) and to move toward valued behavior (Schoendorff et al., 2011). More specifically, drawing on positive psychology and educational approaches, workshops on acceptance and engagement and practical of mindfulness reduce the time spent fighting against painful thoughts, emotions and memories in order to use their energy more effectively and productively. The training program follows the same protocol for interventions based on ACT: at minimum, six workshops of two hours.

The main objective of the second approach of the program - *project management tools* –based on an European tool of project management (PIA2) (Gendron, 2014) was to allow students to work in groups, so that they learn about themselves and each other, and become able to evaluate their individual and collective work. Different exercises were used to increase students' commitment and to learn to become active participants in their collective groups projects. From the beginning until the end, each student from each group received different roles and responsibilities that must be accomplished in a specific deadline and following a management guide. During the workshops,students worked in small groups being accompanied by a tutor and continued their work at home or together after classes. The tutor has an important role as a coach, helping and encouraging students to continue and to persist in order to achieve the team objectives.

Institutional framework, stakeholders and data. The program was integrated into the timetable of students from Faculty of Science Education from the second semester of the first year as part of two modules: "Evaluation and orientation in teaching and education" and "Personalized Professional Project". From the beginning, the program was supported by the University Coaching and Mentoring Service and the University Preventive Medicine and Health Promotion Service. The participants consisted of a group of 132 first year university students of education from the Faculty of Education Sciences (final dataset of 97 students made up of 11 males and 86 women, mean age of 20 years). In order to evaluate all the statistical variables, two measures (test-retest) were administrated and each subject signed an informed consent statement at the beginning of first evaluation. he information regarding profile participants and results for the second year is in the preparatory phase and will be published in a future comparative study.

*Measures and analysis.*Several instruments were used according to specific variables and two dimensions: emotional competencies and ACT measurement. For the first dimension, two instruments were used: *Trait Emotional Intelligence Questionnaire* (TEIQue) and *Emotion RegulationProfile-Revised (ERP-R)*. *Trait Emotional Intelligence Questionnaire*developed by Petrides in 2009, comprises 153 items,yielding scores on 15 facets, four factors (well-being, sociability, emotionality, self-control), and global trait EI (Petrides, 2009). Secondly, the *Emotion RegulationProfile-Revised (ERP-R)* developed by Nelis, Quoidbach, Hansenne, and Mikolajczak in 2011, is a vignette-based measure. It comprises 15 scenarii describing different types of emotion-eliciting situations. Each scenario features a specific emotion (*e.g.,* anger, sadness, fear, jealousy, shame, guilt, joy, contentment, awe, gratitude, pride) and is followed by eight possible reactions: four considered as adaptive and four viewed as maladaptive (Nelis et al., 2011). For the second dimension, were used tests to evaluate students' mindfulness and awareness and the level of acceptance and engagement. *Mindful Attention Awareness Scale* (MAAS) developed by Brown and Ryan, in 2003, is a 15-item scale distributed across cognitive, emotional, physical, interpersonal, and general domains. As authors mentioned, items were drafted to reflect the experience of mindfulness and mindlessness including communication, thoughts, emotions, and physical states (Brown & Ryan, 2003). Supplementary tests were used to evaluate extend to which individuals have experienced negative emotional symptoms over the past week, academic motivation and general sense of perceived self-efficacy.

Procedure and analysis. Of 132 first year university students fro Faculty of Sciences of Education, only 97 students who completed correctly the tests and attempted all the six workshops were register in our database. They completed the evaluation tests at 3-month intervals, in the beginning and middle of second semester. Statistical data was analyzed in SPSS using T-Test in order to identify inter-group differences between experimental group (XP GP) and control group (Ctrl GP) but also to identify intra-group differences betweenmeasurements resulted before the training (T1) and after the training (T2).

Results and discussion. Initialresults of this program are presented more detailed in previous researches (see Gendron, 2014; Gendron et al., 2016).In this article we will insist on main-intra group differences obtained in T1 and

T2 that highlights the influence of the training on different variables that were measured. Overall, the statistical data allows us to confirm positive changes in students' scores for variables like: up-regulating positive emotions and empathy, but also a greater awareness of level of anxiety and stress which means that students started to know themselves better and to work on their level of stress management. Statistical analysis identified after the intervention program (T2) that subjects from experimental group have better abilities (M_{XP}=2,425, SD= 0,93) to *manage their emotionsandtofocus on the positive side* of life events than subjects from control group (M_{CTRL}=1,968, SD = 0,93). TEIQue allowed us to identify significant difference before (T1) and after (T2) the intervention concerning *social relationships*. Subjects from experimental group are more capable (M_{XP} = 5,75, SD= 0,58) to develop and maintain efficient relationship with others (M_{CTRL} = 5,38, SD = 0,93). Analysis of data will continue with further results, but preliminaryonessupport the benefic role of this early intervention, for students and also for research on initial teachers training. Even if students complete academic courses and programs to become responsible professionals, evaluation of emotional competencies allows a better understanding of their strengths and weaknesses that may affect their professional and personal evolution. As emotional competencies and emotional capital change through training and experience, this type of interventions represents only the start, the condition sine non-quabecause it is an every day process over a person's life.

4. Conclusion

Teaching is an emotional profession where managing emotions and feelings help teachers respond efficiently to each day challenges. Investing early in what we call emotional capital, based on multiple emotional competencies, allowed them to have positive and adaptive relationship, to cope with stress and to become more resilient and assertive. Regarding educational policies, initial and continuous training programs are necessary to surpass first years teaching, considered the most difficult.

Emotional capital that belongs to the human capital in broad sense is the only one in which individuals can invest in it for its economic, social and personal returns. It enables a sustainable development in the lifelong learning perspective, a better social cohesion, education and work values and commitment in the economic and social life. Institutions, such as university or schools, have their role to play at implementing and setting up such learning environments to develop this essential and useful specific human capital.

Acknowledgment

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What to do to increase access and equity in Romanian Education?

Case study: "education divide" and "ethnic divide"

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Abstract. The analysis and research results regarding the state of the Romanian education system confirm not only the overall low quality of education, but also huge disparities and inequities. This paper analyze, on the basis of the data collected by ARACIP from about 85% of the school units, some issues regarding this aspect, the "education divide" and the "ethnic divide": the level of parents' education is correlated, positively, with attendance and results; on the other hand, the proportion of Roma students is also correlated with attendance and results, but negatively. Moreover, our analysis confirmed the "segregation" of schools by results and by risk factors. For this reason, the interventions meant to increase participation and improve results should be school based, integrated and flexible: the "mix" of programmes and actions must be different in different communities, schools and even at individual level.
Key words: equity in education; evidence-based decision making; quality of education.

1. Introduction

In the last years, criticisms addressed to the Romanian educational system multiplied, regarding its quality, access and equity, all having as a background the chronic under-financing. The main external stakeholders – students, parents and employers – become more and more critical. Unfortunately, this general dissatisfaction is based not on impressions or opinions, but on statistical data regarding investment in education and evolution of various indicators on participation at education and learning outcomes. There are many analyses, research results, reports confirming the critical state of education in Romania. We shall not detail them[i] but we must underline that the same analyses, research results, reports confirm not only the overall low quality of education provided in the Romanian educations system, but also huge disparities and inequities. Moreover, the evolution of the indicators regarding participation at education[ii] and results / learning outcomes[iii] demonstrate that the overall problems of the educational system are even explained by these inequities in education provision. Recent Strategic documents developed at national level (see, for instance, Partnership Agreement România, 2014) already identified four main disadvantaged categories of children as targets for EU Cohesion and Investment funds: **children from rural areas, children from low-income and poorly educated families, Roma children and children with disabilities**.

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We have already data demonstrating that the objectives set for 2020 have already been fulfilled, regarding the urban, educated population, with average and above average income. For instance, the rate of early school leavers in urban areas is under 10%, while in the rural area it is almost 30% (we remind, at an average level of more than 18% in 2015, and increasing). **Hence, the main sources for growth, which can ensure to fulfil, in 2020, the said indicators, are to be found in the disadvantaged groups cited above**.

Given that school does not succeed to correct (in the contrary, it deepens) inequality of opportunity caused by the community and family environment[iv], reform strategies aiming to increase quality will be successful and sustainable only if they also aim, constantly, to correct inequities and to enlarge access to quality education for disadvantaged groups.

In order to offer support for these policies, among other research papers, surveys, studies and reports[v], ARACIP began, in 2015, to analyze, statistically, the general data made public by the school units via the Yearly Internal Evaluation Report on Quality of Education[vi]. The first general research report, made on the basis of the collected data, was published in 2015 (ARACIP, 2015c) and the conclusions are not only confirming other analysis and surveys made at national and international levels, but also revealed some other interesting issues to be used for building robust, efficient and effective public policies in education.

We mention that this was the first exercise (for schools but for ARACIP as well) of data collection using, for this purpose, the computer application provided by ARACIP. For this reason, even we consider the conclusions of this exercise sound and useful (see below), we took them into consideration with precaution and we are looking for further confirmation. However, based on the comparison with other data sources (for instance, the National Institute of Statistics, the Institute of Educational Sciences), even if about 1000 schools have gaps and errors in their data, we may state that our data (an thus, our conclusions, as well) are correct, because they represent about 85% of school units, and similar percentages of all students and teachers.

In this paper, we present some of these conclusions and, on this basis, some specific recommendations for policy making, in order to maximize the impact on participation at education and on learning outcomes. Of course, there will be no absolute novelty in what we propose (because studies of this kind were produced before (e.g. UEFISCDI 2015), but our conclusions may be used for developing initiatives with real added value.

2. Some conclusions regarding access and equity in education: the ”education divide” and the “ethnic divide”

The correlations between results and context or input factors (such as the area where school is functioning – rural and urban – and regarding the influence of family or community wealth on participation at education and results) are made, on regular basis, and there are enough data arguing that schools in rural and poor areas have weaker participation and poorer results. For this reason, we analyze other two variables and their influence on the above

mentioned indicators: the average level of parents' education – leading to the **"education divide"** – and the percentage of Roma students – leading to the **"ethnic divide".**

We'll present, in this chapter, some results of our own research (ARACIP, 2015c) and using data made public by schools and collected by ARACIP. The general research question of the study was: **what kind of correlations exists between data, especially regarding how contextual factors (family and community) or school (existing resources) affect school attendance and learning outcomes?**

2.1. Some facts

Dropout rate is higher where parents' level of education is lower – see Figure 1 for the level of dropout according to the level of parents' education (for primary and lower secondary levels of education).

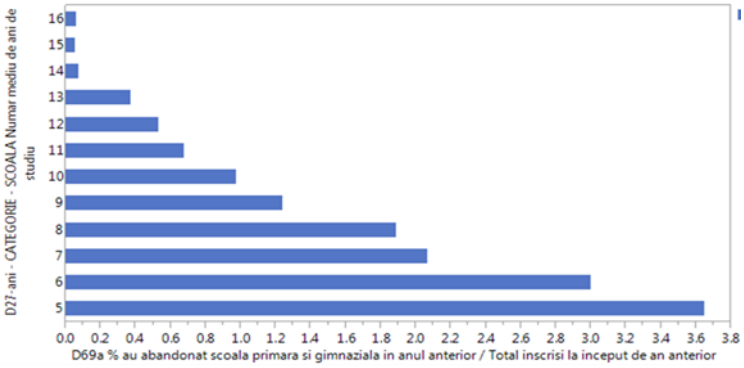

Figure 1. Dropout rate according to parents' education (for primary and lower secondary levels of education)

In schools with higher results in regular assessment and at national examinations there are parents with higher education level. Overall, a statistically significant correlation between parent education and results (current and national assessments / examinations), is registered only for urban schools. For urban high schools, there is, as well, a correlation between parents' education and the percentage of higher marks and, especially, with the percentage of high school graduates, enrolled in higher education, (see Figure 2).

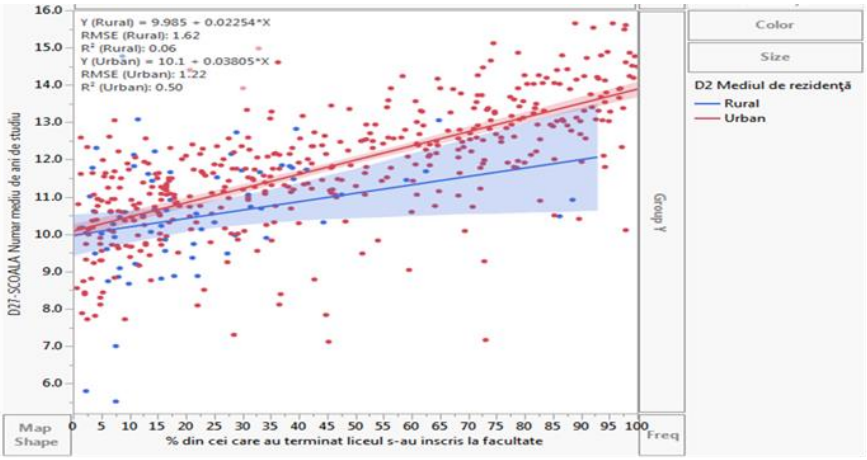

Figure 2. The correlation between the parents' education and the percentage of high school graduates enrolled in higher education

It seems that, in rural areas, schools are more able to compensate the negative impact of low education level of parents. Additional explanations for the lack of correlation, in rural schools, between the level of parents' education and results may be: the low percentage of parents with higher education in rural schools (less than 1% and half of the percentage registered 15 years ago – see ARACIP 2015a); the insignificant percentage of graduates of rural schools enrolled in higher education.

Teachers' qualification is higherin schools where parents' education is higher (see Figures 3 and 4). In Figure 3, both dimensions are put into relationship with dropout rate (higher rates are marked with red dots):

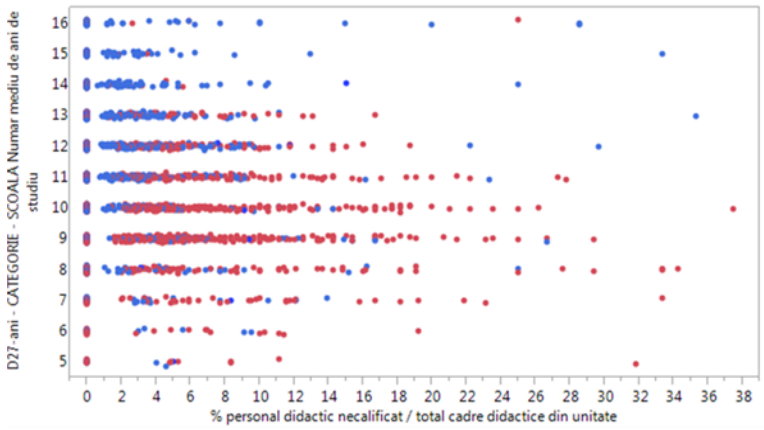

Figure 3. Distribution of unqualified teachers according with parents' education level and dropout rate

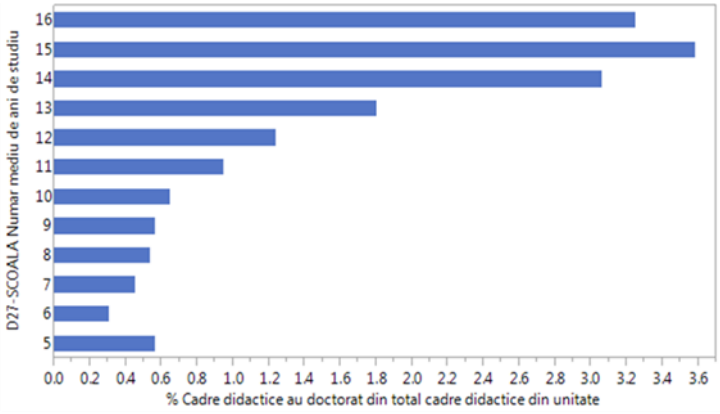

Figure 4. Percentage of teachers with PhD according to parents' education level

School attendance is lower where parents' education is lower. In Figure 5 we may see that the highest number of absences per student is registered mainly in urban areas but also in rural disadvantaged areas, in schools were parents' education level is lower. Generally, the attendance is better in rural schools. The exceptions (attendance in rural schools lower than in urban schools), are for schools where the average level of parents' education is 15 and 16 – this situation is met in suburban areas, where are located a lot of private schools collecting students from wealthy and educated families from Bucharest and other big cities.

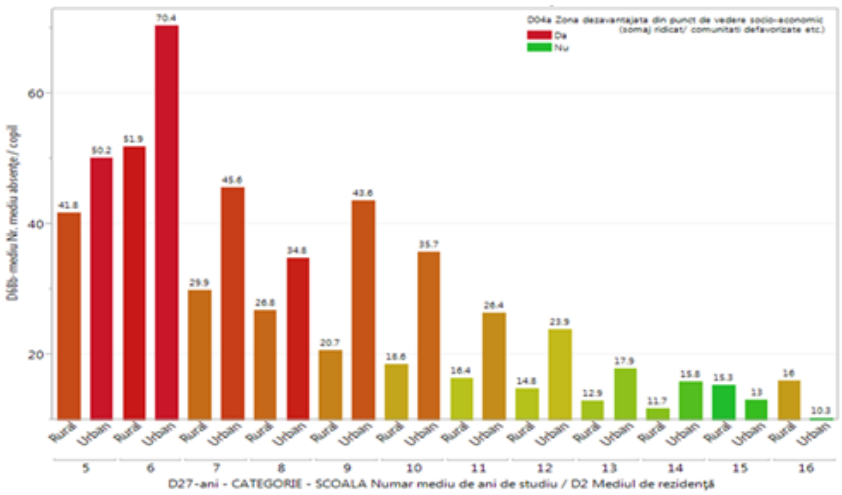

Figure 5. The average no of absences, according with the level of parents education and school position (rural/urban; disadvantaged area = red / not disadvantaged area = green)

The level of parents' education is negatively correlated with the percentage of Roma children. The level of parents' education co-varies with the ethnical composition of the school population **only** in relationship with Roma minority (see Figures 6).

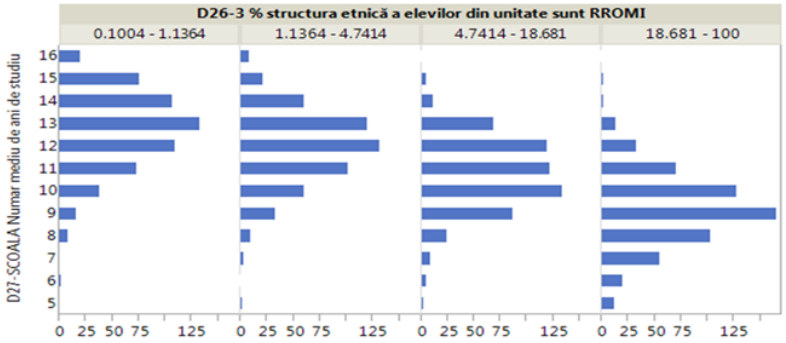

Figure 6. The level of parents' education, according with the percentage of Roma students

In the case of other ethnical groups, there are not such variations. We present, as an example, the same situation regarding the Romanian (majority) population (Figure 7):

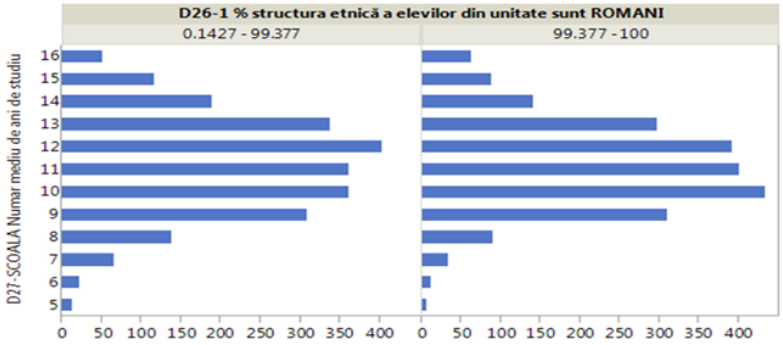

Figure 7. The level of parents' education, according with the percentage of Roma students

School attendance is lower where the percentage of Roma students is higher. Especially the **truancy is higher in rural and urban areas where the percentage of Roma students is higher** (see Figure 8):

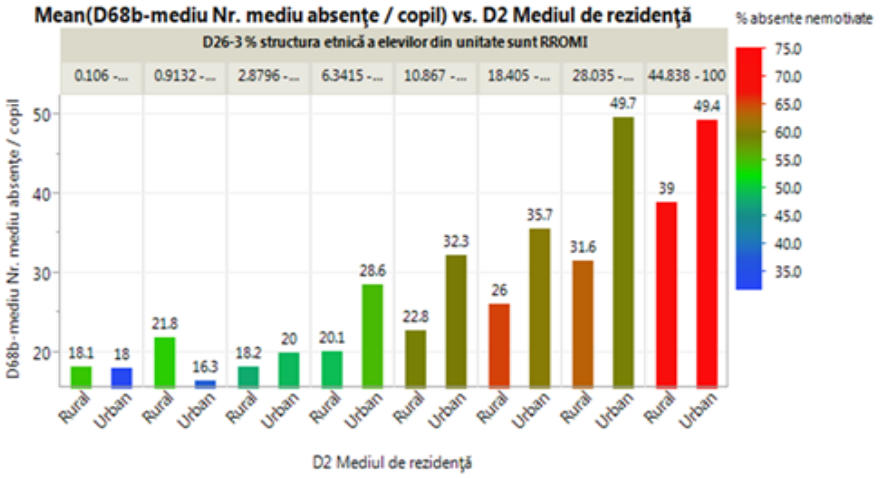

Figure 8. The average no of absences, according with the percentage of Roma students, school position (rural/urban) and the percentage of truancy (no of un-motivated absences / student: higher no = red, lower no = green)

The dropout rate is higher where the percentage of Roma students is higher. For primary and lower secondary levels of education, the dropout rate in schools where the percentage of Roma students is higher than 90% is 6-7 times higher than in schools where the percentage of Roma students is lower than 15% (see Table 1):

Table 1. Dropout rate, according to the percentage of Roma students, in primary and lower secondary schools.

% of Roma students	0.1 — 15 %	15 — 30 %	30 — 45 %	45 — 60 %	60 — 75 %	75 — 90 %	90 — 100 %
Dropout rate in the previous school year – primary level of education	0.6 %	1.3 %	2.0 %	2.5 %	1.9 %	1.7 %	3.5 %
Dropout rate in the previous school year – lower secondary level of education	0.8 %	2.0 %	3.9 %	3.7 %	3.5 %	4.0 %	5.7 %

2.2. Discussion

As a primary conclusion, our research confirms the results of other similar investigations: school attendance, dropout rate and results (learning outcomes) are highly influenced by two main factors, **the level of parents' education and the percentage of Roma students.** We may assume too that **these two variables are inter-correlated**, as well (further investigation being needed in this respect). There are other factors influencing the above mentioned indicators – such as the school location (rural / urban) and the wealth of the community. These other factors are, of course, are correlated with the ones we mentioned above: for instance, he level of education is correlated with individual income (UNICEF, 2015).

But, on the other hand, planning interventions and support programmes having in mind only the area (e.g. programmes only for rural areas) or only the poverty level **may be misleading and not having the intended results.** For instance, the learning outcomes (results at national / international assessments and examinations) are better correlated with the educational level of the families, while attendance and dropout are better correlated with wealth. In other words**: wealth may bring students in schools, but parents' education forecast the level of their school attainment**.

Another example: there are wealthy rural areas (e.g. several areas surrounding big urban centres), not needing interventions for raising income or for developing the local economy. But these areas may need increased educational support, in order to improve the passing rates in high school and higher education.

The ethnical composition of the school population - i.e. higher percentage of Roma students – is another indicator to be taken into consideration in describing risks and vulnerabilities at school level. Roma families cumulate, usually, all disadvantages: they are poor, poorly educated, with high unemployment, with health and housing problems. So, we may assume (of course, this statement too needs further research) **that the percentage of Roma students may be the most important factor affecting participation at education and results**. On this basis, improving both education participation and attainment in schools functioning in Roma communities is a must, having in mind the demographic evolutions as well: "young Roma are entering labour markets at much higher rates than aging majority populations: 1 in 5 of new labour market entrants in Bulgaria, Romania, and Serbia are Roma" (World Bank, Europe and Central Asia, 2010, p.4).

On top of this, the existing resources in schools are correlated with the input and context factors and with results, as well (for these correlations regarding human resources[vii], see above, and for the financial ones – see UNICEF, 2015).

Going more in depth, the data we have **confirms the "segregation" of schools by results** (PISA, 2013): between-school differences in PISA results are higher, in Romania, than OECD average and the differences in results within-school are lower than the OECD average. Likewise, the variation within results is explained more by school position (within the community) than by students' socio-economic status within school.

And this segregation of schools is not only by results: **we have schools cumulating advantages** (wealthy and educated families, better qualified teachers and more resources, low percentage of Roma and disabled students) **and performing well** (low dropout rate, low level of absenteeism, high graduation and survival rates in high school and higher education etc.). But **we also have schools cumulating disadvantages** (poor and poorly educated families, less qualified teachers, fewer resources, higher percentages of Roma and disabled students) **and, of course, performing poorly** (high dropout rate and absenteeism, low graduation and survival rates in high school and higher education etc.). And this "segregation" is not entirely by locality: for instance, in a small town in Moldova with three schools, almost all Roma students are gathered in only one.

3. A summary of recommendations

All the factors influencing negatively participation at education and results are, usually, cumulated, but they may blend in various ways. For these reasons, if we **aim to improve participation at education and learning outcomes**, the interventions:

- **Must be school based.**
- **Must be cumulated, in order to address all local, specific risk factors**.
- **Should be "mixed" in different ways - in different communities, in different schools** (even in the same community) **and even for different individuals**.

For instance, in the same community, some schools may need interventions at the level of basic conditions (infrastructure: water, sewerage etc.), others may not need such interventions. Some schools will need more equipment and teaching aids, other will need only better qualified teachers etc.

The same with support measures at individual level: some students need the financial and educational support, other students need only educational **or** financial support (for instance, disabled students may need financial support, but not educational or vice versa).

The international practices demonstrate that **integrated interventions** (addressing, from different angles and with different kinds of support, coming from different institutions) demonstrate the highest impact and return on investment (Edwards and Downes, 2013) because of **their cumulative effects**: better housing and financial support for families, correlated with better teachers will increase participation and will improve the results; better education attainment will increase earnings and employment opportunities. On the other hand, a hungry or abused child will not learn, until the lower levels of needs are satisfied. The same, efforts made to ensure professional qualification will become useless if there are no employment opportunities in the local community.

So, the interventions should be "**menu based**", each community selecting, from this "menu", for each school and even for each individual, the most adequate support measures.

For this reason, in Roma communities, where all risk factors cumulate, **the interventions should be cumulated, as well**: economic (financial support – as "conditional cash transfer or not –, employment opportunities, "social economy" etc.), social (judicial support, prevention of child abuse and child work, day centres etc.) and educational (better paid and better qualified teachers, tutoring and recovery programs, extra support teachers etc.). In this blend, **scholarships and other incentives for "resilience"** are a must. In order to "blend" interventions in an adequate ways, there must be enough **financial flexibility**, at community and school level.

Of course, this **"a la carte" system of interventions and the financial flexibility** must be completed with a robust and powerful evaluation system, based on clear indicators and with early warning mechanisms, and t**he main outcomes of this intervention system will be continuously diminished "segregation" among schools and individuals (regarding participation and results), diminished "education divide" and "ethnic divide", improved overall quality of education, demonstrated, at its turn, by better results at national and international evaluations and examinations.**

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Teachers' perspective towards the implementation of inclusive education

Elena MARIN[7]

Abstract: This paper presents the findings of an empirical study that aims to investigate teachers' perspective towards the implementation of inclusive education. The study was part a research inquiry which investigated teachers' attitudes, believes and needs regarding the process of implementation of an inclusive education system. This data was based on questionnaire, conducted with mainstream teachers in state schools in Bucharest, Romania. The results show that teachers who teach students with SEN agree to go through training courses related to inclusive education.Moreover, it is showed that teachers who hold a bachelor's or a master degree declare themselves to more prepared and have a better knowledge regarding the concept of inclusive education, while teachers who do not hold a university degree (unqualified teachers) declared themselves to be relatively unprepared to respond to the new educational requirements that come along with the development of the inclusive schools. All in all, teachers perspective towards the implementation of an inclusive educational system is mainly positively minded, teachers seeing the process as being beneficial to all students, regardless the fact they have special education needs or not.
Keywords: inclusive education, teachers' attitude; students with special needs.

1. Introduction

The need for a shared idea of inclusion targets the human factor rather than the technical side of education. It is based on the idea that inclusive education is better for all learners in terms of life preparation. The schools long-standing traditions must be overcome with a move from a medical mind-set to schools where everyone belongs. Inclusion is about all learners. (EASNIE, 2014). Other studies show the fact that inclusion is strictly correlated to the belief that students with special educational needs should be fully integrated into general education classrooms (Ivey & Reincke, 2002; Hanwi, 2003; Al Zyoudi, 2006) and that the teachers are responsible for providing all students with authentic learning experiences (Prochnow et al., 2000; Iucu & Marin, 2014).

Tring to portrait a comprehensive approach towards inclusion in education UNESCO agrees that:

'applying a rights-based approach to education in order to move towards inclusion will require comprehensive school system reform including modification of constitutional guarantees and policies, curricula, teacher training systems, materials, learning environments, methodologies, resource allocation, etc. Above all, it will require a change

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in attitudes of all people, throughout the system, to welcome diversity and difference and see these as opportunities rather than problems.' (UNESCO, 2008, p. 29).

Preparing all teachers to face inclusion in the classroom is one of the major characteristics of pedagogical shift in recent years. Nowadays, teachers` responsibilities have diversified and they have to be able to meet the challenge of teaching to the 21st century students by adjusting their teaching styles and strategies in accordance with the diversity of learning styles (Clayton, 1996; Forlin, 1997; Paterson & Graham, 2000, Marin, 2014). Therefore, universities through the teacher training departments are now required to ensure that all teachers are able to face inclusion in the classroom, by providing a highly qualitative learning experiences that will prepare them to answer to the needs of an increasing range of diverse learners (Al Tarwana, 2008). In this sense, there are some international guidelines proposed by UNESCO that states the fact that within the initial and continuous teacher training system should be offered courses with regard to inclusion in education (UNESCO, 1994). Moreover, in a report of the European Agency for Development in Special Needs Education, there are presentedfour core values relating to teaching and learning in inclusive environments. These four core values are: (EADSNE, 2012, p.2)

1. Valuing learner diversity – learner difference is considered as a resource and an asset to education;
2. Supporting all learners – teachers have high expectations for all learners' achievements;
3. Working with others – collaboration and teamwork are essential approaches for all teachers;
4. Continuing personal professional development – teaching is a learning activity and teachers take responsibility for their own lifelong learning.

Understand teachers' perspective towards inclusive education is seen as a decisive factor in making schools more inclusive. Studies show that teachers have conflicting opinions regarding educating students with special education needs (SEN), mainly that some teachers see this responsibility as an extra duty (Van Reusen, Shosho, & Bonker, 2000; Gordon, 2002; Arif & Gaad, 2008). Besides, this extra responsibility is not accepted by some teachers, that do not accept the education of students with SEN and consequently they will try to ensure that other colleagues, such as the special educator will take responsibility (Mutasa, Goronga, & Tafangombe, 2013).

In addition, studies emphasizes the importance of the teacher training programme in building a positive attitudes towards inclusion (Campbell, Gilmore, & Cuskelly, 2003; Shippen et al., 2005; Jung, 2007). Furthermore, Subban and Sharma (2007) draws attention on the fact that if teachers acquire a negative attitudes during their teacher training programme, then those attitudes are difficult to change.

2. The Development of the Inclusive Romanian educational system

The process of shifting from the integration perspective to the inclusion one started in 1990 with the first legislative document, the*Convention on the Rights of the Child* that talks about the nondiscrimination principle (art.2), connected with the right to education (art.28 and 29), both articles clearly stating the need to include all students in the

educational process. A similar legislative document is the *Romanian Constitution* and the *Law of Education* that agrees that all Romanian citizens have an equal right to education, at all levels and in all forms, regardless of gender, race, nationality, religious, or political affiliation and social or economic status; and in consequence the state's role is to make sure that the principles of democratically education are applied, guarantying the right to differentiated education, on the basis of educational pluralism (Romanian Law of Education1/2011).

Another document that focused on social inclusion, but also covering educational inclusion is *The Common Memorandum on Inclusion* signed, in 2004,by the Romanian Government with theEuropean Commission and presents the fact that students living in poor families are having 2,3 times more chances to abandon the school, in comparison with students from non-poor families.

The Ministry of National Education and Scientific Research has initiated several programmes that target the development of both mainstream schools, as well as special needs schools and the transformation of special schools into school centres for inclusive education. The idea that supports this shift towards the inclusive school system is related to the fact that students with special education needs from the mainstream education can benefit from both qualified services from the supporting teacher/itinerant, as well as special therapy sessions provided by the psych-pedagogy teachers from the resource centers.Moreover, each school has its freedom to choose if the national curriculum plan must be adapted depending on the needs of students.

The improvement and development of educational services in the Romanian education system is correlated to the following aspects: (Ghergut, 2012)

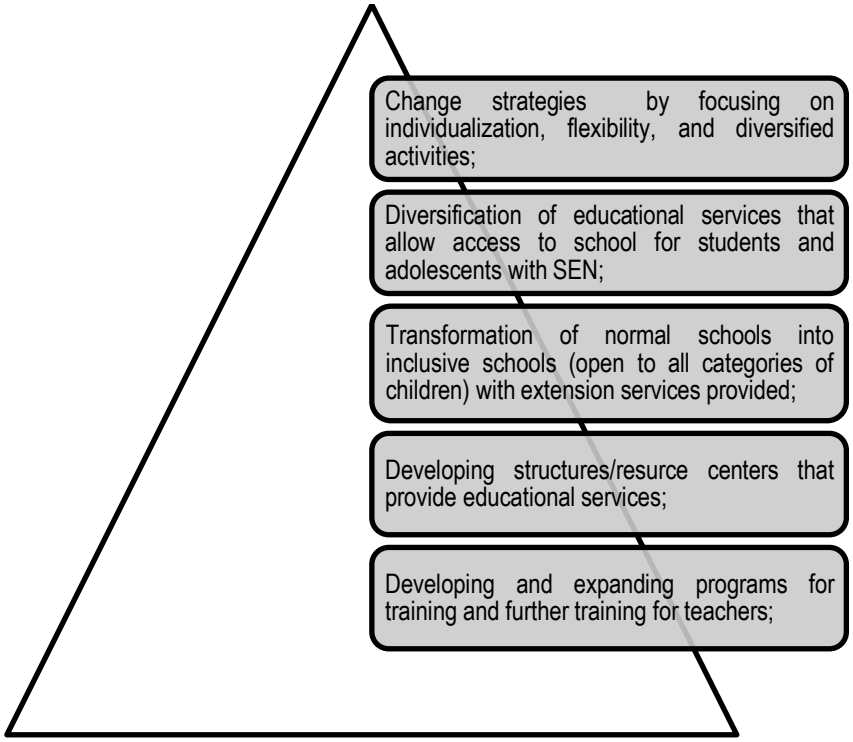

Figure 1 Aspects that influence the improvement and development of educational services in the Romanian education system

The obstacles in promoting an inclusive education are complex and notable, but in Romania the most relevant one is the lack of clear legislative initiatives and the lack of training that teachers received in facing inclusion in the classroom (Marin, 2014). Based on the assumptions presented above, the aim of this study is to contribute to the knowledge in the field of inclusive education, more specifically on the human factor that influences the development of the inclusive education system, and that is the teachers` perspective towards inclusive education.

3. Methodology

A quantitative approach was used by administrating a questionnaire to mainstream teachers in state schools in Bucharest, Romania. The design of the questionnaire is based on a set of 3 clusters such as: knowledge in the field of inclusive education; teachers` level of preparedness in order to face inclusion in the classroom; and the importance of initial teacher training course in order to prepare future teachers to deal with inclusion. The independent variable that were taken into consideration were respondents` highest level of education and respondents` level of studies they teach.

The questionnaire was administrated between January and July 2014. It is estimated that nearly 400 teachers from 17 public schools that have received the questionnaire through their principle which facilitated the access to the sample. From these, 213 teachers completed the survey which shows the fact that the response rate was of 47%.

The profile of the respondents in term of the highest level of education that they have obtained and in terms of the level of studied they teach is presented in the tables below.

Table 1 Participants profile in terms of the highest level of education obtained

	High school studies	Bachelor degree	Master degree	Doctoral degree
No of participants	25	112	69	7

Regarding participants profile in terms of the highest level of education obtained it can be observed that the majority of teachers that have participated in this study hold a bachelor degree (112 respondents), while 69 of them hold a master degree and 7 of them have passed through doctoral studies. At the same time, a category of approximately 8,5% of respondents have only graduated from the *upper-secondary*school.

Table 2 Participants profile in terms of the level of studies they teach

	Pre-school education system	Primary school system	Lower- Secondary School System	Upper - Secondary School System
No of participants	95	55	29	34

When it comes to participants` profile in terms of the level of studies they teach, it can be observed that 95 respondents work in the preschool education system, 55 of them work in the primary education system, where 29 of them work in lower secondary school, respectively 34 of them work in the upper-secondary education system.

4. Results

The results are organized as follows. Firstly, teachers` level of knowledge in the field of inclusive education is being examined according to their level of study in order to portrait how much information teachers hold regarding a specific field of study, such as inclusive education that is present in the Romanian system for over 25 years. Also, presenting a statistic of the number of teachers that have previously worked with students with SEN will show how diverse the Romanian education system is and will also show teachers` level of identifying situations where they had to adapt both the curricula and the teaching strategies to the learning needs of all students. Nevertheless, teacher` level of preparedness to teach students with SEN is presented in comparison to teachers` need of going through training courses that can prepare them to face an inclusive school environment. If there is a real need to receive specialized training that can lead to changing the teacher training curricula, this could be considered as a main factor to start putting a stress on the need to have a compulsory course that deals with the concept of inclusive education.

Table 3 Correlation between the highest level of education and the level of knowledge in the field of inclusive education

		The highest level of education completed	Level of knowledge in the field of inclusive education
The highest level of education completed	Pearson Correlations	1	,187**
	Sig. (2-tailed)		,006
	N	213	213
Level of knowledge in the field of inclusive education	Pearson Correlations	,187**	1
	Sig. (2-tailed)	,006	
	N	213	213

**. Correlations is significant at the 0.01 level (2-tailed).

In table 3, there is present a statistic that shows the correlation between the highest level of education and the level of knowledge in the field of inclusive education. There is a positive correlation (p =, 187) between the highest level of education completed and the level of knowledge regarding the concept of inclusion. Thus, teachers who hold a bachelor's or a master degree declares to more prepared and have a better knowledge regarding the concept of inclusive education, while teachers who do not hold a university degree (unqualified teachers) declared themselves

to be relatively unprepared to respond to the new educational requirements that come along with the development of the inclusive schools.

Table 4 Correlation between the number of teachers who have experience in working with students with SEN and the level of usage of teaching strategies and methodologies adapted to the needs of students with SEN

		Have you worked with students with SEN?	To what extent are you familiar with using teaching strategies and methodologies adapted to the needs of students with SEN?
Have you worked with students with SEN?	Pearson Correlations	1	-,138*
	Sig. (2-tailed)		,045
	N	213	213
To what extent are you familiar with using teaching strategies and methodologies adapted to the needs of students with SEN?	Pearson Correlations	-,138*	1
	Sig. (2-tailed)	,045	
	N	213	213

*. Correlations is significant at the 0.05 level (2-tailed).

Although teachers declared they have experience in working with students with special needs, they say that they are not familiar with the process of adapting teaching strategies and methodologies to the needs of students with SEN. There is a negative correlation (p = -, 138) between the items presented above, showing that, either teachers haven`t received a proper training regarding ways of adapting the curriculum and the teaching strategies in order to fulfil the needs of every student and offer each students a unique learning experience, or they do not feel sufficiently confident on applying what the literature has highline as being essential, mainly to make use of instructional strategies known to be effective for divers learning contexts and divers learners.

Table 5 Correlation between teacher` level of prepares to teach students with SEN and the presence of training courses regarding the specification of an inclusive school environment

		To what extent are you ready to receive students with SEN in the classroom?	Do you think attending training courses regarding inclusive education could help you to better adapt to different learning situations that involve students with SEN?
To what extent are you ready to receive students with SEN in the classroom?	Pearson Correlation	1	,154*
	Sig. (2-tailed)		,024
	N	213	213
Do you think attending training courses regarding inclusive education could help you to	Pearson Correlation	,154*	1
	Sig. (2-tailed)	,024	

better adapt to different learning situations that involve students with SEN?	N	213	213

*. Correlation is significant at the 0.05 level (2-tailed).

A significant number of teachers that are willing to teach students with SEN agree to go through training courses related to inclusive education. In this sense, a positive correlation can be seen (p =,154) between the item concerning the extent to which teachers think they are ready to receive pupils with SEN in their classrooms and the need to go through a teaching training programme that will enable them to receive the proper training and to be ready to face inclusion the classroom.

5. Discussion and conclusions

At a legislative level, there is a need to further improve the legislative document and create a unitary vision of what inclusive education really means, aligning and at the same time updating the terminology used in this field. Specifically, at a legislative level the concept of inclusion and special education needs should be adopted and should be avoided concepts such as handicapped. That is why it is necessary to adopt a National strategy on inclusion of students with special education needs that is aligned to the international forum of discussion. Moreover, the national strategy should focus on the importance of investing in the teacher training programmes so that it can provide future teachers a qualitative and relevant learning experience that can prepare them to face inclusion in the classroom.

As showed, teachers say they have little or no clear information on the concept of inclusion, which could have a negative consequences on the process of developing an inclusive school education. Therefore, it must be implemented a system of initial and continuing training that meets the current requirements of future teachers, providing compulsory courses in the field of inclusive education to all the future teachers regardless of their specialization. Respondents are in favor of going through training courses to acquire a special set of skills to thereby be able to work in an inclusive learning environment which correlates to the findings of the OECD report that shows that teachers opinion towards their own professional development is commonly related to the need to acquire new knowledge related to didactics and on how to adapt to diversity in the classroom. (OECD, 2005)

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Scrapping subjects and introducing 'topics'? An inquiry over integrative approaches to learning departing from the case of Arts in the curriculum

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Abstract: It is proposed a critical reading of educational research literature approaching the role and place of Arts in the curriculum. The purpose of this proposed critical reading is to explore the implications of research and/or practice informed discussions of the role Arts play in the curriculum in current reformist debates. Pre-modern approaches to education placed great emphasis on subject-knowledge, assigning to arts a particularly important place in the system of liberal arts. Modern and post-modern approaches to understanding the role of arts in education prompt significant shifts in the view and practices of not only arts, but education itself which deserve attention. Disciplinary and interdisciplinary approaches to structuring learning contents mark the opposite ends of a continuum where every system of educational practice may be positioned closer to either one, based on the approaches to learning it endorses. In what follows, it is proposed reflecting on what moving across this continuum may mean for the place arts may be attributed in the curriculum.

Keywords: curriculum, arts, educational reform, integrative approaches

Deciding what role and what place Arts should be assigned in the curriculum is no simple problem. Some very interesting discussions in reformist discourses around the Western World today have sprung out of it. The mainstream curriculum had traditionally valued particularly two forms of artistic expression: music and visual arts. The long lasting history of arts' status quo in the early, pre-modern approaches to systemic education in Europe has been strongly debated in modern and post-modern discourses on educational reform, with abandonment of all subject-based teaching figuring as one possible perspective to curriculum in some of the most progressive understandings to the topic.

It is proposed here a critical reading of current research literature approaching the role and place of Arts in the curriculum. The purpose of this proposed critical reading is to explore the implications of research and/or practice informed discussions of the role Arts play in the curriculum in current reformist debates.

The traditional conceptualizations of subject knowledge or learning content in the form of arts disciplines placed an important amount of pedagogic emphasis on training the taste, reasoning and aesthetic attitude of learners towards appreciation and consumption of art and art works, either musical or visual, as significant parts of the world's

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cultural patrimony. Appreciating their quality of serving as great deposits of cultural memory, traditionalists believe that the art works enjoying centuries of cultural recognition have the merit of securing us out of the danger of becoming prisoners of our own time, as Efland (2007) argued. In the curriculum, work as vehicles to the history of human creativity and culture in the absence of which, traditionalists believe new generations would be less rich spiritually. Hence, a specially preserved place in the curriculum is recommended to be secured so that arts' specific subject-knowledge to be taught and learned. The work of art, as traditionalists see it, does not concern itself with the everyday trivia of one's life. It provides a way out of the ordinary, into where the exceptional and the imaginary live. This apparent breakage with the mundane, explains Julian Johnson (2002, p. 49) does not mean a breakage with the human being; instead it signifies arts' refusal to admit that everything which can be said about men lies in the everyday mundane objectivity (idem).

The Modern Age of the Industrial Revolution determined rapid transformations in the demographic, geo-political, cultural and socio-economical structure of life, with major consequences on the understanding of time, space, work productivity and human identity. These changes charged shifts in all major aspects of life and work; knowledge is defined by attributes such as certainty, systemic structure and accuracy (Toulmin, 1990); work is defined by efficiency and productivity, under a new-found appreciation for reducing costs and increasing the volume and speed of production; learning too, is - more than ever in history of education - significant mostly as a process deemed improvable in this cost-efficiency logic making its mark in every aspect of life at the time. Important for education is only the knowledge imbued with resources for increasing work productivity and employment, making arts subject-knowledge obsolete and marginal in a new order of things placing the greatest value on measurable aspects of learning related to the world of work and economic gain. At best, arts are regarded as a luxury – great to have in the curriculum, but not a necessity (Eisner, 2004).

The rate and amplitude of changes charging the world in all its' dimensions and aspects of life at the end of the XXth century fueled even further the inquiry and the continuous quest for renewed meanings for education and for arts. Postmodern interpretations of art processes prompt new roles and positions for both the work of art, and the artist. Meanings are co-constructed in the dynamic relational milieu pulling together in one fluid system the artist, the work of art and the consumer of art; the work of art is no longer understood as a product, dissociated from its' public. It rather functions as a pretext for experiences and judgments making up the act of co-constructing artistic vision and meanings in this particular relational dynamic. Irrespective of the degree of initiation, taste or maturity of aesthetic reasoning, individuals are engaged in the exercise of artistic production of meaning, at times by intrusive intervention, other times by integrating the artistic situation in the systems of social milieu, such as architecture, mass-media or folk art production do (Kwon, 2004, pp. 56-99, apud. Nae, 2015, p.182).

Current post-modern inquiries on education call out the immediacy and importance of accounting for the modern approaches to school curriculum's capacity to effectively respond to the major shifts in technological, demographical, socio-economical, geopolitical and cultural aspects of life. Communication, creation, learning, poverty and prosperity,

success, accomplishment, collaboration etc. are all notions expanding their meaning, with ample consequences on how people understand to procure what makes them lead a happy and fulfilled life. The main question in contemporary debates on education is whether the conceptions and approaches of modern industrialism, underlying the vast majority of approaches to curriculum today, are still capable of responding to the requirements of life and work today?

More often than ever educationalists tend to turn to exploring the potential for school learning that arts participation and arts production may present. Elliot Eisner (2004) provides a few good reasons as to why this may be the case. His arguments are worthy of a closer attention particularly because it seems to attempt closing the gap between the opposing ends of a curricular dichotomy prophesying a conceptual divorce between literacy and arts:

- Arts do not separate between form and content. The way in which something is being said determines the experience of receiving that which is being said to the same extent the content of that message does. What does this mean for education? It is a memento for the implications bared for learning by the way in which the school and the curriculum are being structured: learning owes to teaching just as much as it owes to the context (material, systemic, process etc.) of teaching.
- In Arts everything interacts: there is no form without content and no content without form. Whenever the form of an object or phenomenon changes, it simultaneously determines changes in the quality of the experience with that object or phenomenon. A color interacts with other colors on the canvas. Alterations of its' intensity determine alterations in the ways in which we perceive everything surrounding it. The way in which something is being taught or learned in school, faster or slower, difficult or simple gains its' meaning in relation to everything surrounding it in the relevant context of learning.
- In Arts nuances matter. Interpreters define their interpretations in the details, in the nuances. There are many ways in which the interpretation of a musical fragment may differ from one interpreter to another, not because they read a different music notation, but because the nuances the interpreter sees in the music are uniquely read and uniquely mastered in interpretations. The quality of learning is greatly influenced by the nuances of interpreting and constructing meaning afforded in the curriculum.
- In Arts surprise does not stand in the way of reasoning, instead it is considered a desirable part of the rewards and outcomes anyone participating in the artistic event awaits and hopes for. Without surprise there is no discovery and without discovery there is no progress. School learning could benefit greatly from hosting a lot more surprises than it manages to, as long as we are able to recognize the incredible intrinsic value surprises have in building motivation for learning.
- In Arts slowing perceptions are the surest way of securing the observation of what's going on. For the school learning though, the academic performance often emphasizes wittiness, quickness of reaction, sharpness of mind and responses. Perception, in authentic Deweyian sense, is more than simply the result of observing an object

for the purpose of recognition and labeling; slowed down perception allows savoring – meaning a qualitative exploration of the many aspects and relations the object or phenomenon under study affords.

- In Arts, the limitations of language are not signifying limitations of reasoning. We know more than we can say, famously warned Michael Polanyi (1960, apud. Palmer, 1998). Literacy is conventionally understood in relation to school learning as our ability to read and write. Eisner invites our reflection on the possibilities arts open up for expanding our current understandings of and approaches to literacy in curriculum and education. He is encouraging understanding literacy as someone's ability to identify or create forms of representation helpful in constructing and communicating meaning, even when or where similarities to conventional language are not available or possible. Moreover, conventional curricular approaches associate literacy to higher order thinking skills. Admitting we know more than we are able to say, schools may be able to cultivate an interest for multi-literacy, meaning to cultivate an interest in fostering a variety of forms of literacy, each prompting another way of being in the world, of leading a life of experiences and knowledge, of recovering and expressing meaning.
- In Arts the somatic experience is indicative of people getting the message. The school learning experience is often accused of focusing too much on everything else but the somatic experiences. Robinson (2001) notes that it is as if school only cares for our heads, as if it would be separate from the rest of the body. In a more serious note, he mentions Susane Langer's metaphor of senses functioning as boulevards for consciousness. Somatic ways of knowing are bodily, visceral; they build in a sense of appropriateness to making a choice such as expressing a preference or a rejection, without necessarily putting into words all the reasons why that choice seems the right choice. Should wording be always required, then all the poetry of the choices we make would no longer be, such as falling in love, for instance, would be reduced to giving a logical structure and wording the entirety of our reasons and motives.
- In Arts the problems with an open ending are the best ones to elicit our imagination. The imagination, as a fundamental human capacity, is the source of all new possibilities. In the exercise of imagination, not in the necessity, lies the impulse for discovery. In the arts, the place for imagination is very highly regarded. School based learning could learn from the Arts this special positioning of imagination, and it seems to explore exactly that in systems of educational practice proposing the study of not merely subject-knowledge, but the exploratory venture into horizons of knowing which may include possible actions of discovery which have not previously been tested in any school culture of learning. This may seem to be the case of Finland's dropping the curricular plans focusing on subject-knowledge and replacing it with integrated approaches to learning, where imagination and inquiry are top rated intellectual exercises in engaging with 'topics' pedagogically designed to foster a phenomenological understanding of the world.

However compelling and enthusiastic Eisner's call for reconsidering the place and the role of arts in curriculum may be, different degrees of skepticism mark the practices of many systems of education and the discourses on educational reform in Europe today. Certainly, there is a great variation in the conceptions and approaches to

learning and education and in the ways learning contents structure current views of knowledge, particularly of academic knowledge. Disciplinary and interdisciplinary approaches to structuring learning contents mark the opposite ends of a continuum where every system of educational practice may be positioned closer to either one, based on the approaches to learning it endorses. In what follows, it is proposed reflecting on what moving across this continuum may mean for the place arts may be attributed in the curriculum.

Possibly the greatest advantage a disciplinary approach to structuring academic knowledge presents consists in the predictability of learning conditions and the linearity of the learning trajectory it affords. Standards of academic performance can be formulated in relation to each subject and every unit of learning content in it, whereas contexts for transmitting and assimilating the content can be secured from as little variation as possible, allowing for similarity of learning conditions and efficient control of the resources directed at reaching the proposed standards of academic performance. It bears no surprise, that such an understanding of knowledge and of learning is also impactful on learners and teachers identities, as it is consequential to the relational aspects of learning and of agency. It follows a logic of control and consistency building on the idea that what it is valuable in the human cultural patrimony can be established and needs to be preserved for future generations to identify with or be identified by, and that there is a level of predictability which objectivist conditions to acquiring knowledge afford to indicators of academic performances in relation to the macro-systemic criteria of productivity and economic gain. Although it made history and continues to frame the most impactful rhetoric in education in the world, this logic is detrimental to all learning that is difficult to measure and ends up in prompting segregationist approaches to knowledge in the curriculum. In most cases, it leads to marginalization and diminished formative value being attributed to the subjects in the curriculum which do not make the object of assessment and have no predictive value in relation to productivity and economic gain. Even where arts make it in the curriculum, a disciplinary approach to learning contents prove limiting to the possibilities of exploring art forms and creative experiences out of the scope of delivering the propositional knowledge endorsed in the curriculum.

Interdisciplinary approaches to arts in the curriculum prompt no less of a debate. Dispersion of views and positions can be explored when looking at notions of *transfer* in learning, attributing to Arts a position of being *instrumental* to learning in other subjects in the curriculum (i.e music may or may not be instrumental to higher performances in mathematical reasoning). Albeit all interdisciplinary approaches sprung out of a need to reposition arts in the curriculum, the better part of educational research studies endorsing interdisciplinary approaches before the turn of the century, have argued along the lines of a presumed instrumental effect arts have in regard of teaching and learning the core-curriculum heavies like language or mathematics. Thomas Brewer (2002) gives a comprehensive view over some of the earliest research studies warning against this extrinsic motivational build-on supporting the idea that Arts could play a more central part in the curriculum:

- Hetland and Winner (2000) edited a meta-analysis of studies on the impact interdisciplinary approaches repositioning arts in learning and curriculum bare on the academic performances of various disciplinary subjects and

noted only three causal relations: that of learning Music and the impact on spatial and temporal reasoning, and that of studying Drama and its' noted effects on the verbal reasoning of students. The reduced number of correlations and causal effects identified prompted the two researchers to caution against promoting arts for the sake of promised improvements in the performances tested in non-artistic disciplines in the curriculum.

- Walker and Schaffarzick (1981) published a synthesis of 26 comparative studies focusing on traditional and innovative approaches to curriculum. The two researchers concluded their report by noting various possible constellations of acquisitions attributable to learning in various approaches to curriculum, but it cannot be concluded on the general effect on learning as an integrative phenomenon.
- Looking at various possible didactic associations between arts and non-arts disciplines, Kindler (1987) remarks on the lack of empirical evidence in support of notable benefits of learning in the arts, partly because the assessment instruments and procedures do not match the nature of learning in the arts and are more suitable to measuring learning in other areas.
- Significant differences have been noted between arts as well, with Samuel Hope (1997) cautioning on the importance recognition of specificity every form of artistic expression requires and careful advancement in what and what cannot be done interdisciplinary in the arts as well. Although they may share some common principles, the art forms do not substitute one another and it cannot be said something in the name of all forms of arts learning just by exploring any one of the artistic forms which made it above the cut in the curriculum.

For either too much or too little supportive enthusiasm to the idea of interdisciplinary approaches to learning, repositioning arts in the curriculum proves tricky, especially when the arts are regarded as adjuvant to academic performance in other curricular areas. A more commendable approach to interdisciplinary learning actions inclusive of arts learning seems to be those engaging educationalists with the intrinsic educational value of every learning content and empowering systematic searches for connections between knowledge distributed across the various disciplines in the curriculum and beyond the curriculum. This quest for what brings everything together in terms of knowledge may not serve well the purposes of specialization (Russel, Zembylas, 2007), it may elude the narrow paths of traditional assessment practices and it may upset the positivist claims against subjectivity in deciding what knowledge should be a part of the curriculum, but it has the merit of presenting the participants to the learning situation – teachers and students – with an opportunity to explore and inquire into expanding horizons of possible actions with knowledge, ones in which sound, form, color, vibration, movement, light etc. allow for pluri-dimensional exploration and experimentation, inclusive of relevant aspects of knowing in the arts (affective, bodily, intellectual, imaginative), of knowing in sciences and technologies (imaginative, rational, aesthetic) and of knowing in social, cultural, humanist endeavors (volitional, intellectual, affective).

The literature supporting this new, integrative understanding of various forms of knowing and their place in the curriculum, advances arguments and empirical evidence placing emphasis on other aspects of learning and development than those announced through traditional measurements of academic performances or of cognitivist

approaches to testing various intellectual categories. New, integrative approaches to arts in the curriculum facilitate learning experiences intellectually and emotionally stimulating for both students and teachers (Veblen, Elliott, 2000; Deasy, 2002; Chrysostomou, 2004; Mansilla, 2005). Studies also show the repositioning of arts in the curriculum encourage holistic approaches to problem solving (Mason, 1996; O'Donell, Fitzpatrick, 2016) and facilitate a more situated, context sensitive and culturally mediated approach to learning and meaning making (Efland, 2002; Freedman, 2003; Rose, 2011; Share, 2015), as well as introduce to the educational enterprise the pedagogical resources distributed in the community outside the school, such as museums and arts galleries (Sternfeld, 2012; Coehlo Valente, 2016).

Should integrative approaches to learning contents in the curriculum mark the beginning of a new pedagogical age, in which abandoning pedagogical approaches rooted in subject-knowledge becomes the rule, not a bold, but singular move in an avant-garde educational system such as Finland's, it will most likely be as a reflection of this integrative view melting into every aspect of life in and out of school. To illustrate the way in which this principle of connectedness imbues the pedagogical truths we look for, much of Finland's great educational success over the past decade has being explained on the basis of a combination of political will, purposeful efforts to promote equity by the educational system, high quality teacher education, teachers' professional and moral responsibility and society's trust in educational actors (Niemi et al, 2012). What this teaches us is that it takes an all integrative, dynamic view on education and life for the realization of which it is not simply enough to adjust the pedagogical technique, as it is to engage all participants to education in this relational approach to knowledge and learning to seriously inquire into the deep meanings of what, why, how it can be done beyond the traditional confines of pedagogic imagination and of the resources available. What fuels the support for this integrative vision seems to be the acknowledgement that working in education towards finding the connections between forms of knowing, between the participants and the non-participants to the learning situation, between the individual and the collective capacity building is not a pedagogical luxury or a fad. It may be, in view of what goes on today in the world, the soundest pedagogical way to move forward.

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Mediated learning. Psihopedagogical implications

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Abstract: In this article are presented some important aspects of the mediated learning and their pedagogical implications. Feuerstein Method aims to improve the cognitive abilities of each person and it is based on the belief that there is always a gap between the potential of an individual and the actual achievement of this potential, so there is always the possibility of a further development of a person, over whom it can be a great influence in a constructive way. Feuerstein method is applied in various fields and at various levels, starting from the recovery of people with severe mental retardation to the continuing education of the staff from various companies.

Keywords: mediated learning, structural cognitive modificability, cognitive functions, instrumental enrichment program, potential.

1. The role of the Feuerstein Method

Feuerstein Method intends to form and to develop cognitive strategies of a person, in order to reach to his intrinsic motivation, to be able to solve a task, or a problem by changing the way of thinking with regard to the actions that a person should undertake in difficult situations and also to be able to accept the cognitive challenges.

Through this system the teacher manages to learn student various concepts and mental operations necessary for them in order to become proficient in solving general problems, to correct their poor cognitive functions. It also encourages the metacognitive reflection on the cognitive functions and on the mental processes, it contributes to the development of the perspective on the conditions of success or failure causes, at school and in the vocational training, but also in everyday situations. The teacher is able to offer the students the opportunity to experience and understand their cognitive abilities and, mostly important, this method helps teacher to get out from the cognitive passivity, what makes the students becoming aware of their capacity of regarding the production of ideas, the extrapolation of information, the formulation and the verification of various hypotheses. Feuerstein method is based on the concept of „Structural Cognitive Modificability" which supports the hypothesis that human beings can be modelled after some educational interventions made by the mediators.

According to Feuerstein, intelligence is a good that all men have and which develops due to the plasticity and malleability of human brain structures. The intelligence is not static. So, it can be developed, enhanced through various interventions tailored to each person by the mediators.

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Throughout life, according to the experiences a man lives, he suffers some changes in response to the stimuli which are acting on him continuously. Thus, the man modifies his own performances and he tends to adapt to the environment. What he learns acquires a meaning, a value only if there is an intervention of other human beings, who act as „mediators", organizing them and presenting them the stimuli, so that they generate positive changes at the cognitive level, which means „the mediated learning experience".

Feuerstein's method aims to develop the cognitive functions of each person, of those with learning disabilities, with mental retardation or living in an unfavorable cultural environment, thus stimulating the creation of new capacities of thinking, of development of concepts, of reflection, of organization and also selecting the data. It aims to develop the mental flexibility, the deductive and inductive reasoning, the hypothetical and inferential thinking, and also transforming the individual into a person who generates ideas and information. Underlying all these goals the confidence stands in modifying the cognitive structure of every human being (Feuerstein, 1995).

Feuerstein method developed by the Romanian psychologist Reuven Feuerstein represents a reference point for the pedagogical intervention programs applied in different contexts.

2. Historical aspects of the Fuerstein's Theory

Immediately after the Second World War, the State of Israel, still in formation, faced the problem of integration into the social and cultural life of hundreds of people (including many children and teenagers) who came from different countries, speaking different languages and most of them suffered important emotional and cultural frustrations: family separation, removal from the groupwhere they belonged. Many of them came from the concentration camps, being deprived of the most basic cultural necessities, were also psychologically marked by their traumatic experiences they have lived. Feuerstein being convinced that human beings are modifiable, through his position of psychologist sworn by Israeli government in order to interfere in solving the complex social problem existing in the country, he wanted to overcome that situation of social and cultural disadvantage felt by many young people (Kopciowski Camerini, 2002, p. 7-8).

Feuerstein's theory based on the concepts of *learning potential* and of *cognitive structural modification* was followed by a dynamic practice intervention. After a first analysis of the behavior, of the problems of relational and cognitive possibilities, he shows that young people who had certain learning and relational difficulties (young people who usually were considered impossible to be educated) were placed in an intensive program of training, which had as a result their integration into school and society. They were divided into groups and they had contact with youngsters of the same age, they attended the activities in a relaxed atmosphere, rich in affective and cultural stimuli, which led them feel useful and efficient.

The central idea of the program was to create the possibility in order to benefit from the experience of the mediated learning proposed by Reuven Feuerstein. The success of this training program was extraordinarily high, because almost all of the young people have managed to overcome their initial difficulties and proved that they can

be integrated into the society and they are also able to develop their cognitive potential to the optimum level. The results obtained by them to certain tests after a period of time when they benefited from a sustained psychological support demonstrated remarkable progress (effective cognitive functioning, cognitive modification, personal balance). These results were close to normal values and were significantly higher than those achieved by young people considered normal.

Reuven Feuerstein's theory, like other theories arose from the need to support people who are in difficulty, proved to be useful for the entire population. Therefore, the principle of mediated learning has proven effectiveness for improving mental abilities of young normal adults, professionally speaking.

3. The impact of the Feuerstein Method

Today, the method is used in various environments: in formal education environment (in schools and universities), in the field of special education (the recovery of persons with socio-cultural problems of integration), in the area of adult education (maintaining mental abilities of older people) and in lifelong learning (professional qualifications of a staff in the production field) (Vanini, 2003).

The success reached by Feuerstein method can be attributed to several factors. One of them is represented by the *flexibility* of the method, which made possible its application in various fields. The method, designed to meet the educational demands of young people disadvantaged from a socio-cultural point of view, it proved to be effective for persons with disabilities. The method was applied gradually in both special education and general education, and it aims to develop the cognitive abilities of young normal people. Recently this method was also applied in the production sector, namely in staff training programs of some multinational companies (Mara, 2009, p. 46).

Another important factor that explains the success of this method refers to the *precision* of the program, both in terms of developing cognitive skills, and also improving the cognitive intervention. Feuerstein method provides well-defined tools and materials, as well as precise strategies for their use in order to ensure consistency in the action carried out by the specialists. Feuerstein stresses out the fact that the superficial and mechanical use of the materials proposed by him could lead to bottlenecks when applying his method. Hence, it is necessary a well-known understanding of the theoretical and conceptual part of this program.

The basic ideas grounded by the whole theory of Reuven Feuerstein are (Mara, 2009, p. 46-47):

a. the priority of the cognitive sphere;

b. the modification of the intelligence;

c. not accepting the disability;

d. educational optimism.

Further on, we intend to detail these fundamental ideas with the goal of identifying the complexity of the theoretical and practical dimensions of Feuerstein's theory.

a. The priority of the cognitive sphere

The program of research and intervention suggested by Feuerstein focuses on the individual's cognitive sphere: attention, memory, logical reasoning, abstract thinking. This approach can be explained by the fact that he worked with Jean Piaget, he was his student, but it is supported by a number of other reasons, such as:

- cognitive abilities are considered to be the main instruments through which the individual is able to control himself and to adapt himself to the surrounding reality;

- current society is characterized by increasingly rapid changes, requiring to each individual to develop certain capacities in order to adapt to new and complex contexts. In this regard, only a well-developed cognitive competence enables an efficient interaction with certain rapidly changing environments. At the same time, in schools are required more complex and sophisticated cognitive skills from the students. So it is obvious that in the absence of some cognitive development programs like the one developed by Feuerstein, the children with learning difficulties or with cognitive disabilities are more likely to be disadvantaged.

- the cognitive sphere presents a higher degree of modification than the physical sphere (often limited by severe neuromuscular deficiencies) or the emotional area. The latter represents for the subject an intimate part, therefore it is less available to external intervention. The intervention at the cognitive level has significant implications for all the other spheres (of motricity, emotional, motivational) so that the development of some cognitive abilities leads to an increased self-esteem and to a self-control student.

The cognitive subsystem can be considered as being the main means in order to reach to the other systems: from a behavioral and an emotional point of view.

One of the most important contributions made by Feuerstein is that he turned his attention from the cognitive functions toward their control processes. So, the goal of the educational intervention is not to provide new knowledge or skills to the child, but to develop him the capacity of autonomous learning and self-learning.

We find in Feuerstein's theory a concept met to other authors, too, namely that the student must *learn to learn*, in such a manner that he should not be dependent on an external aid, in the process of a continuous adaptation to the surrounding reality.

On a practical level there are two objectives:

- helping pupil to reflect and to become aware of the cognitive processes that he activates when he needs to solve a problem;

- acquiring a precise methodology of learning and a problem solving algorithm in order to enable students to successfully overcome new and unexpected problem situations.

The approach of the cognitive operation conducted by Feuerstein is centered on the process and not on the product or on the results of the activity found in the paradigm of the classical evaluation (of the traditional intelligence tests).

b. The modification of the intelligence

The whole theory of Feuerstein is considered as a broad debate about intelligence, as a confrontation between the ambientalist theory (which emphasizes the importance of social factors in determining the cognitive benefits of the subject) and the hereditarist theory (which offers a special importance to the genetics). Feuerstein's theory is placed within the first theory. However Feuerstein recognizes the importance of the hereditary factor but he gives more confidence to social and cultural influences or to mediation (term proposed by him).

The intellectual level of the individual is mostly the result of the interaction with social environment, due to the experience of the mediated learning. In this sense, Feuerste differs from Piaget, not being agree with the cognitive development in successive and fixed stages for all individuals. The connection between the two authors is that they both consider intelligence as a process and not a product which can be measured by psychometric tests. The intelligence is defined as a modifiable capacity which allows achieving some levels of adaptation in a bigger and complex way. From these experiences Feuerstein built his theory of *Structural Cognitive Modificability*. Feuerstein explains the difference between "change" and "structural change". The first term refers to changes limited in time which do not become part of the cognitive structure of the subject. Instead, the change involves a evolution of the entire cognitive system that leads to new structures and new connections between the existing ones. In other words a structural change involves new ways of thinking and they are much more flexible. A characteristic of humans is the intrinsic tendency towards evolution and continuous change. In this sense, the cognitive system is considered to be as an open system, a system that can not achieve a stable and a definitive status, but it interacts with the surrounding reality.

Concerning the maximum level of development that an individual can achieve, Feuerstein states that it is not possible to predict the maximum degree of the cognitive development that can be achieved by the student individually, even if he receives external support.

c. Non-acceptance of the disability

The conviction on human modificability is directly accompanied by a different attitude characterized by not accepting the disability, regardless of its degree. In this respect, it should be mentioned the fact that non-acceptance does not cover the emotional relationship of the trainer with the subject in difficulty, a relationship based on empathy, respect, but it refers to the risk of a passive attitude and of a renunciation to foreign intervention. It often happens that the parents of a child with disabilities to have the tendency to avoid stressful situations for him, the result being that of a static, not exigent, artificial environment which does not stimulate the child towards the change and evolution of his cognitive skills.

Feuerstein has stressed many times that man is able to change himself even if he has a deficiency. Culturally disadvantaged people or those with disabilities are not capable of a spontaneous change. In their case it is required a systematic and an intensive intervention.

d. Educational Optimism

Feuerstein considers that human beings represent a system of components that are closely interrelated. The change occurred in one of these components has important effects on the other system components. For instance, a child's development of the motivation improves his mnesic performance which will have an impact on his self-esteem and on his self-control.

The changes suggested by The Instrumental Enrichment Program (a set of pedagogical intervention tools) occur at the level of cognitive structure, being in favor of the development of certain cognitive new schemas through which the individual interacts with reality, in a flexible manner.

Feuerstein cognitive method requires that the subject's cognitive reorganization should be the primary means through which he achieves changes in all the other subsystems: behavioral, emotional, motivational and so on and so forth. These changes are possible to be reached only when the subject is involved in certain specific behavioral exercises, such as phobic intervention, in cases when a cognitive reorganization is not sufficient without a direct exposure of the subject to that specific situation.

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Exploring the long-term impact of three short instructional development programs on instructional models for university teachers

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Abstract: In the last decades, the number of instructional development programs for university teachers are increasing across the world. Consequently, many research studies aim to indentify the impact of these programs on teaching effectiveness in higher education. Despite the number of studies, many research questions have not received yet conclusive responses. In this context, the present paper presents some evidence about the long-term effect of three short instructional development programs that have used instructional models as educational content (*Gagné's instructional model*, *Gagné's Adapted instructional model* and *Engelmann's Direct instructional model*). After three years from the implementation of programs, a semi-structured interviews was conducted. Out of the 12 teachers involved in the programs, 9 expressed their willingness to respond. The results show that all the 9 teachers have used in their current teaching practice, in a adapted form, many of the aspects acquired during the programs. Also, the results highlighted that instructional models are perceived by the university teachers as tools with greater applicability for teaching in higher education. The results are discussed and some possible implication for the filed are presented.

Key words: higher education; instructional development programs; instructional models; medical universities, long-term impact.

1. Introduction

In the past decades, a lot of effort has been invested to investigate the impact of instructional development programs (IDPs) for university teachers on teaching effectiveness in higher education (De Rijdt et al. 2013; Steinert et al. 2016; Stes et al. 2010). Generally, these studies have used adapted the version of the Kirkpatrick's (1994) model for evaluating outcomes of IDPs (Steinert et al. 2006; Stes et al. 2010). For example, Stes and her collaborators (Stes et al. 2010) presented a model with three levels (*change within teachers*, *institutional impact*, and *change within students*). Each of these three levels has some dimensions. *Change within teachers* is referred to change in teachers' attitudes, conceptions, knowledge, skills and behavior. *Institutional impact* takes in consideration changes in the organizational, attributable to the IDPs. Also, *change within students*, considered the following aspects:

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students' perceptions, study approaches and learning outcomes (Stes et al. 2010, p. 29). It seems that most of the studies in the field are focused mainly on the first issue (Steinert et al. 2016). Even if the change within teachers it seems to be the most analyzed outcome of IDPs, the long-term impacts of such programs remain an aspect less studied (Stes et al. 2010). Also, most of the studies have evaluated the impact of IDPs as a whole. For which reason exploring the impact of the amount of training time spent (De Rijdt et al. 2013; Stes et al. 2010) or theoretical foundation (Amundsen and Wilson 2012) of IDPs could be also useful in order to increase the knowledge about these programs and their impact on teaching effectiveness in higher education.

This study aims to present some evidences in order to fill these gaps. A qualitative research approach is adopted to evaluate the long-term impact of three short IDPs (two hours of training each program) with instructional models (*Gagné's instructional model*, *Gagné's Adapted instructional model* and *Engelmann's Direct instructional model*) as educational content. A semi-structured interviews instrument was used to collect the participants' answers. The research was conducted three years after the programs.

2. Conclusions from the exploration of previous studies in the filed

Usually, if the amount of training time spent is considered, IDPs are divided into *one-time events and extended over-time events* (Rijdt et al. 2013; Stes et al. 2010). In the most recent review in the field (Steinert et al. 2016), out of the 111 studies analyzed, 32 are presented as one-time events. This type of program is described as interventions ranging in duration from one hour to six days. In previous reviews, the same type of IDPs is described slightly differently. For example, Stes and her collaborators understand from one-time events that programs from 2 hours to 4.5 days (Stes et al. 2010). Also, Rijdt and her collaborators (Rijdt et al. 2013) present one-time events as program from one hour/one day to two consecutive days. Maybe, this inconsistence in the field can be explained by the fact that many studies have used different terms to report the amount of training time spent. Some article do not present data (e.g., Addy and Blanchard 2010; Stepp-Greany 2004 etc.), other use years (e.g., Howland and Wedman 2004; McClusky de Swart 2010 etc.), or months (e.g., Cilliers and Herman 2010; Persellin and Goodrick 2010 etc.), or weeks (e.g., McShannon and Hynes 2005; Sydow 1998 etc.), or days (e.g., O'Hara and Pritchard 2008) and small minority use ECTS (e.g., Postareff et al. 2007; Postareff et al. 2008) to present the amount of training time. In this context, the present paper used the definition proposed by Rijdt and her collaborators (Rijdt et al. 2013) to explain one-time events/short IDPs. It must be said that previous studies, also, have advanced the idea that one-time events have less change to make a profound impact (Prebble at al. 2004; Saroyan and Trigwell 2015; Stes et al. 2010). However, due to the small number of the studies that evaluated the impact of one-time events, future research on this topic is necessary. Also, an even greater need appears to be the evaluation of the long-term impacts of short IDPs. (Stes et al. 2010).

Three instructional models are the theoretical foundation of the three IDPs (*Gagné's instructional model*, *Gagné's Adapted instructional model* and *Engelmann's Direct instructional model*)

evaluated in this study. Instructional design is one of the central topics of the educational research field. Studies in field have considered empirical research, instructional theory, learning theory and human behaviour (Reiser 2001), proposing important contributions in order to design instructional activities. Among these, instructional design models (IDM) and instructional models (IM) have an essential role.

IDMs are used in university programs dedicated to training professionals in instructional design activities in USA and abroad (Driscoll 1994). However, the interest for using them in practice is different from field to field. If in areas such as industry, business and military, the interest for using these models was always high, in public schools and specially in universities *(Reiser 2001),* this interest is at the opposite level. This existing situation could be one of the explanations of education's current limits, highlighted by relatively recent extensive research, too (ex.: Arum and Roksa 2011). IDMs are complex structures that are focusing on the phases of the process of designing an instructional program (analysis, design, development, implementation and evaluation). In the implementation phase, some IDMs are proposing IMs applicable at the lesson level, using a specific set of instructional events. An IM is "a step by step procedure" (Gunter et al. 1995, p. 67), which allows the planning of the lesson steps, using instructional events (Gagné and Brigges 1974; Hunter 1984; Ilie 2014; Magana and Marzano 2014; Dick and Carey 1990). These instructional events were the central concept of three IDPs evaluated in this paper.

In Romania, beyond a summary presentation of several IMs (Iucu 2008), *only the model proposed by Gagné* (Gagné and Brigges 1974) is widely known (Crasovan 2003; Pavelea et. al 2005; Joița 1994) and it is used for lesson design in an adapted form, however substantiated epistemic and empirically only recently (Ilie 2014). This situation is felt in real educational practice at all levels of educational. In pre-university education, most practitioners consider the lesson plan design as a bureaucratic paper (Ilie 2014 et al.). In higher education, excepting the situations when the academic must take part in a didactic competition, lesson plan is not used.

These shortcomings of IMs using in educational practice could be explained by a series of limitations of IMs current approach in the context of the state of the art research in the instructional design field. I am *discussing the following two arguments:*

a) placing the IM as a less important background of the IDM.

In December 2011, without time limitation and using IDM and IM as key terms for a simple research in two of the most relevant journals in the instructional design field, *Educational Technology Research and Development (ETR&D) and British Journal of Educational Technology* (BJET), data confirms this limit. After eliminating the book reviews and studies assigned to both categories, we have found 102 results in ETR&D and 34 in BJET (total = 136) for IDM, and 73 in ETR&D and 46 in BJET (total = 119 results) for IM. If we do a more specific research, taking into account as key term *instructional events* as steps of an IM, then the situation is even clearer: 39 in ETR&D, 12 in BJET, total of 51 results. This reduction in the number of articles related to IM, makes us remind the firm remark of one of the reviewer of an article recently published in ETR&D **(Ilie 2014**), which highlights that although several confusions are made quite often between IDM and IM, a correct presentation of terms requires a clear distinction

between the two concepts. Coming back to our computations, a quick analysis shows us that the ratio between them is around ⅓ for IDM. From another point of view, we can find studies which are making conceptual and comparative analysis of 15 IDMs (Edmonds and al. 1994) or even 40 IDMs (Andrews and Goodson 1980), however we can find quite rarely studies which analyse more than 5 IMs (Magliaro and al. 2005).

b) a relatively low number of empirical data related to IMs and their impact on the instructional design and the teaching effectiveness.

This fact was noted even by Wager since 1978:"at this point there is very little empirical data or research relating to the events of instruction and how they affect the design of instruction" (1978, p.8). Of course, since Wager's observation until nowadays several studies were made in order to fill this gap (ex: Kinzie 2005, Ilie 2014 etc.). However, even the IM of Gagné (Gagné and Brigges 1974), which is the most known and used IM from field (Smith and Ragan 2000), has not been integrated until this moment into a meta-analytic study. Several meta-analysis of the field (Donker et al. 2014; Hattie 2012; McEwan 2014), are rather approaching instructional strategies focused on a specific type of learning strategies such comprehensive reading and writing (Chiu 1998), writing to learn (Bangert-Drowns 2004), cooperative learning (Slavin 1991) etc., than considering an IM as set of instructional events. In the 931 meta-analyzes that Hattie (2012) centralized, he never uses the term of IM, although identify 411 studies, which frames to teaching category. Among these, is even the model *Direct instruction* proposed by Engelmann (1980). Thus, the paper aims to develop the knowledge in the field through the evaluation of the long-term impact of three IMs on university teachers' currently teaching behavior.

3. The three IDPs with instructional models as content

Gagné's; *Gagné's Adapted* and *Engelmann's* were selected as instructional content of three short/one-time IDPs. The instructional events of these models were the main concept of the three IDPs. These choices were based on sound arguments. *Gagné's instructional model* is one of the most influential and used IMs (Christensen and Osguthorpe 2004). *Gagné's Adapted instructional model* is the most widely known in the Romanian educational context (Ilie 2014). Also, *Engelmann's Direct instructional model* is one of the few for which the effect size (d=.59) of its impact on student achievement has been calculated (Hattie 2012). Each of the three training sessions has two hours of instruction. The following steps are included in each program: first, short presentation of the history of the instructional model; second, presentation of the instructional events of the model; third, examples of how the model can be applied; and fourth, examples of how a lesson plan is developed using the model. Also, the specific correlation of the following four instructional elements is considered: learning objectives, instructional content, instructional methods and assessment methods elements (Anderson and Faust 1973). Moreover, in the training sessions, the trainer paid particular attention to the following: a) balance between explanation and interaction; b) balance between theoretical aspects and application; c) developing an experience exchange environment; and d) taking into account the participants' instructional needs (De Rijdt et al 2016). Each of participating university teachers

were asked to teach three lessons to their classes following these specific steps: a) participate in the first training program on Gagné's model; b) develop a lesson plan using Gagné's model; c) teach a lesson using the lesson plan based on Gagné's model; d) participate in the second training program on Gagné's Adapted model; e) develop a lesson plan using Gagné's Adapted model; f) teach a lesson using the lesson plan based on Gagné's Adapted model; g) participate in the third training program on Engelmann's model; h) develop a lesson plan using Engelmann's model; i) teach a lesson using the lesson plan based on Engelmann's model.

4. The present study

4.1 Aims and hypotheses

The present study investigates the long-term impact of three short IDPs on teachers' currently instructional behavior. The three IDPs evaluated have used three IMs as educational content. After three years to the implementation of the programs, a quantitative research approach is used to collect data from the participants.

The aim of the study is to contribute to the development of knowledge about IDPs for university teachers and their impact on teachers' instructional practice in higher education. The research question and hypothesis are the following:

Do short IDPs of two hours with one IM as instructional content and delivered to in-service university teachers have a long-term impact on teachers' instructional practice in higher education?

This study hypothesizes that short IDPs that have used IMs as educational content can have positive long-term impact on teachers' currently instructional behavior. This hypothesis is based on previous studies on long-term impact of IDPs in medical university context (Dennick 2003; Gozu et al. 2008; Knight et al. 2005, 2007; Malling et al. 2007; Sisson and Kern 2008).

4.2 Participants, measures and procedure

Between November and December 2013, 108 university teachers from "Victor Babes" University of Medicine and Pharmacy, Timișoara, Romania, were enrolled in a pedagogical program offered by Teacher Training Department of West University of Timișoara. Out of these 108 participants, 20 expressed their willingness to participate in an experimental program that would test if a short training, with specific instructional content (IMs), can have a positive impact on their teaching effectiveness. This program is presented in the above section called *The three IDPs with instructional models as content*. The other 88 chose an alternative program that had curriculum development models as content. At the end, out of these 20 participants, 11 completed their tasks and another one taught only three lessons. For various reasons the other 8 could not complete their tasks. Thus, out of the 20 academics, only 12 finalized the programs.

In order to explore in a quantitative approach the long-term impact of these programs, in November 2016 a semi-structured interview tool was developed. The main questions of this tool were the following:

(1) *Why have you chosen the IDPs with IMs as instructional content and not the other one*?

(2) *Are IMs utile tools for increase the teaching effectiveness in higher education*?

(3) *Have you use in your current instructional activities IMs*? *Please give some examples*?

(4) *If in this moment do you have the opportunity of a complex IDPs dedicated to IMs, do you decide to participate*? *Why*?

In the first decade of November 2016, all 12 participants that finalized the programs received one e-mail from the author of this paper. Also, the author of this study was the trainer of the three IDPs. Through the e-mail, the author of this paper invited the academics to participate at the interview and present the four above questions. The participant could choose to response using the e-mail or by phone. After, this out of the 12 university teachers, 3 replied in writing via e-mail. Another 6 accept to response by phone, and the remaining three could not be contacted. Each interview took about 15 - 20 minutes. For each question, the researcher wrote the participants' answer and, after that, ask if they agree those notes.

5. Results

Out of the 9 university teachers, 8 were female. Also the teachers have different staff grades: one associate professor, one lecturer and 7 university assistants; and different lengths of service as university teachers (from 1 to 15 years). The technique of text analysis was used to interpret the participants' answer.

The answers of the first question highlight two different type of motivation to choose the instructional programs with IMs as educational content. First, the programs have been chosen because it seemed to have greater level of applicability. Out of the 9 participants, 7 gave an answer in this direction. Please see below some examples.

It appeared a theme with greater applicability (teacher no. 1).

It was my first year of teaching and I wanted to experiment these IMs. Also, it was the most appropriate to my main activities from that moment (teacher no. 5).

I choose IMs because I had very little information about it and I wanted to see if it has impact on practice (teacher no. 8).

Another type of answer (at the first question) highlighted that the task was perceived as an easier task and also more applicable. Out of the 9 participants, 2 gave an answer in this direction.

It seemed to be easier (teacher no. 2).

It seemed to be easier, but also more efficient. I wanted to increase the level of my teaching activity, I felt that I had gaps in this regard (teacher no. 6).

All the answers to the second questions highlighted that the university teachers have perceived the IMs as useful or very useful tools for increase their teaching effectiveness. Please see below three examples to sustain this position.

I think the models can be useful (teacher no. 5).

For me, yes! I think that the models are useful ... I think at the models when I teach (teacher no. 6).

The IMs were useful for me. I used its immediately in my teaching activities (teacher no. 7).

At the third questions, all the participants have said that use the models in their educational practice. The answers can be presented in two categories. The first includes those that used the correct terms to present the instructional events of the IMs (5 answers), and the second those that cannot be used the correct terminology but can present a well description of the instructional events (4 answers). We present below some examples.

Yes, specifically Gaining attention and Final appreciation (I neglected these aspects before the IDPs) (teacher no. 4).

Yes. Currently, I do not start any teaching activity without Gaining attention and explain why is necessary to acquire the new knowledge. Also, I not finish any teaching activity without questions for students about the new knowledge. Always, I let time to see if they have learned the new knowledge and, if are necessary, to give some new explications (teacher no. 8).

Yes, I have use IMs in my activities. It's difficult to present these now using the specific terminology. For example, at the beginning of the lesson, I always tell to the students the specific title of the lesson and, also, what I expect them to know at the end of the course (teacher no. 7).

Five different type of answers have highlighted at the four questions. Generally, out of the 9 answers, 8 express teachers' interest to participate to similar programs in the future. Only one said he is not interested because is focused on research.

I am focused on research, I believe I would not choose a course of pedagogical training, regardless of instructional content (teacher no. 2).

Out of the 8 positive answers, three have linked the participation to the amount of training time necessary to spent.

I would be interested, but it's hard with my schedule (teacher no. 1).

Yes, depending on the time available (teacher no. 3).

Out of the positive responses, another three present unconditional positions. The three university teachers are interested in participating in future to similar IDPs.

Yes, why not! No, the amount of time necessary doesn't matter. I liked very much the programs (teacher no. 7).

Yes, Yes, Yes! I believe that a lesson plan is not enough and if we had more knowledge, we can make better lessons (teacher no. 8).

The last two responses link the participation of academics in IDPs to who is the trainer or to the level of applicability at the medical educational current practice.

It would be interesting, but if it would take more into account the particularities of our university. (teacher no. 4).

Yes, of course but depends on who is the trainer and also from my schedule (teacher no. 6).

The answers of all four questions have highlighted some additionally and interesting results. One teacher would recommend the IDPs to others colleagues. One participant sustain that these IDPs are more useful at the onset of

the career. Another highlighted her surprise because the students have realized that her manner of teaching has changed.

Yes, I think it useful, I would recommend others to participate (teacher no. 1).

It would be extremely useful, but at the onset of the university teaching professional career ... after 10 years of teaching, I found that I have respect some aspects of IMs, obviously without knowing of their existence ... (teacher no. 4).

To my surprise, the students have realized that my manner of teaching has changed (teacher no. 8).

No, the amount of time necessary doesn't matter, but is important to be in the week, not in weekend and also to match my schedule (teacher no. 6).

I would be interested, but it's hard with my schedule. So, short IDPs would be better. If this program will be made during the week (not in weekend and not in the evening) it would be great. I think that the students' assessment period it is more suitable period. In this period, we have a less busy schedule. It would be better that those course be mandatory as ours, I came reticent, but I learned a lot (teacher no. 6).

6. Conclusions and discussion

The present study reports positive long-time impact of one-time events with IMs as educational content on university teachers' instructional approach. The results are in line with previous studies on which we based our research hypothesis (e.g., Dennick 2003; Gozu et al. 2008; Knight et al. 2005, 2007). Also, the results are in line with previous studies on one-time events impact (e.g., Dixon and Scott 2003; Kahn and Pred 2002; Sydow 1998). From another point of view, the results are in line with previous research that highlighted the impact of IMs in higher education (Hampton and Reiser 2004; Hardré 2003; Hoogveld et al. 2005; Ilie 2014).

Due to the qualitative research approach an additionally set of interesting data is highlighted of the study. The great level of applicability of the IMs is a good reason for the university teachers to choose IDPs if its included IMs as content. Also, the ease which these models can be studied it seems to be an additional reason for university teachers to choose IDPs dedicated to IMs. These results seem to be in accordance with principles of adult learning (Paloș et al. 2007). So, because university teachers are adult learners, in designing IDPs one must use specific instructional content which is related to concrete needs in the daily work of university teachers (Opfer and Pedder 2011).

From another point of view, it seems that the amount of training time spent is important for university teachers, but more important it seems to be that the schedule of the IDPs matches with teachers' schedule. Also, because the medical teachers' schedule is overcrowded (these people are, in the same time, doctors, researchers and teachers) they dedicate the weekend time to the family. Consequently, the students' assessment period it is more suitable period to implement one-time events/short IDPs in medical university settings. Also, because the medical academics see themselves first as doctors or as researchers and only in the end as teachers (Stenfors-

Hayes et al. 2010) it seems that mandatory IDPs are more efficient to determinate the participation of medical university teachers in IDPs.

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Teacher Evaluation in Higher Education as a Component of the Quality Assurance Process

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Abstract: Teacher evaluation in higher education is one of the quality assurance process components that influences a large array of subsystems of the higher education area. The present paper is analysing the teacher evaluation procedures of three universities, Aalborg University – Denmark, University of Bucharest – Romania and West University of Timișoara – Romania, in order to identify similarities and differences at a structural and qualitative level of the documents. There are significant similarities, especially content wise between the Romanian universities, but all the three documents touch on very similar information and are analogous and comparable on a structural level as well.

Keywords: teacher evaluation, quality assurance, higher education, peer evaluation, self-evaluation

1. Introduction

In a recent detailed analysis of the policies regarding quality assurance in higher education around Europe, The European Higher Education Area in 2015 Report (European Commission/EACEA/Eurydice, 2015), the progress of quality assurance in European educational systems is presented, covering both internal and external quality assurance mechanisms. The main point of interest is the approach of national quality assurance systems in correlation with continuous change taking place in educational public policy. In the report it can be noticed that the main directions for quality assurance in education are internationalisation and the use of support from neighbouring countries in achieving quality assurance improvements, along with carefully watching the interventions of the important stakeholders in the quality assurance management and the challenges that these might bring to the system. More specifically, the report displays the following relevant data: all EU universities have their own autonomous internal quality assurance system, there is a significant growth in the number of national quality assurance agencies for higher education that are independent from the government, the number of reports that touch on critical or negative points is low (6) meaning that external quality assurance system is not transparent and trustworthy enough and needs improvement, 60% of the countries use an external quality assurance agency that is in line with the European Standards and Guidelines for Quality Assurance in Higher Education Area (ESG)[13] and the number of countries involving students in the quality assurance system had a significant increase reaching 31

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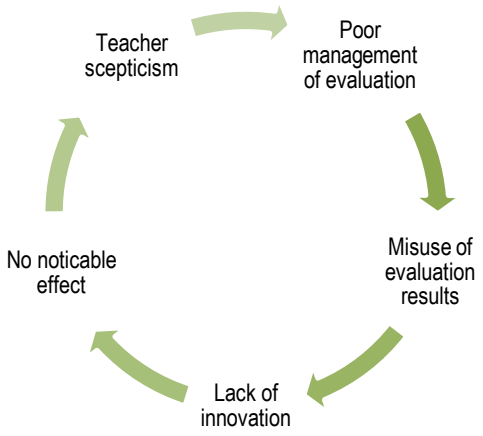
[13] ESG – European Standards and Guidelines for Quality Assurance in Higher Education Area. It became a mandatory request in 2003, as a part of European University Association (EUA) Graz Declaration

countries. This report offers strong evidence that quality assurance continues to be a dynamic area, permanently evolving, being strongly sustained by the Bologna process and the development of the European Higher Education Area (EHEA)[14]. As stated in the report, but also in other European policy documents (Crosier, Purser, & Smidt, 2007), there is an accentuated need for continuous development of the quality assurance processes within the European universities, but also a sustained development in the implementation of educational specific procedures in both internal and external quality assurance systems regarding the teachers' and students' educational activity. There is a trend in this direction from the early 1960 specially in American universities, where the student evaluation of teachers' activity is prevailing in the quality assurance process. This became also a current and largely spread issue in the European higher education area (Ghedin & Aquario, 2008). Even though Romania in most analyses meets all the minim criteria for quality assurance there is still room for improvement.

In the context of quality assurance, evaluation plays an important and decisive role in all the levels of the educational systems. There are a few perspectives over how educational evaluation can be seen. Some examples in this direction are: as a process that shows the degree to which the objectives of an educational programme had been reached (Tyler, 1950), as collecting and using information in order to make a decision about an educational programme (Cronbach, 1960), as a judgement of the result of an educational programme though observations, testing, questionnaires, interviews focusing on how the evaluation is made (Wheeler, 1967) or as attribution of a value to an entity in relation to an set of objectives or criterial values (Yoloye, 1981). Also, over time a classification of the different types of teacher evaluation was established, differentiating them based on the agent that runs the evaluation process (Braskamp, Brandenburg, & Ory, 1984; Kyriakidesa, Demetrioua, & Charalambousa, 2006; Looney, 2011) as student evaluation of teaching performance, peer evaluation and self-evaluation. For each of these, there are different methods of evaluation. Student evaluation of teacher performance can be measured using feedback forms from current students, questionnaires from alumni, interviews and focus groups, mid-semester feedback or analysis of achievement of learning outcomes. Peer evaluation can take the form of observation of teaching activities, analysis of supporting teaching materials or analysis of research products. The self-evaluation usually takes the form of a personal portfolio that contains information regarding the academic trajectory, the academic environment of the teacher, materials used in the teaching process, publications, etc. Out of the three forms of teacher evaluation student evaluation of teaching is the most used at European level and is considered to be the one that offers concrete information about the teachers and the quality of teaching (Marsh, 2007; Hattie, 2009). Moreover, there has also been found a positive correlation between student evaluation of teacher performance and increased engagement and satisfaction for studying (Chen Tsai & Lin, 2012). About peer evaluation teachers feel that it might be biased, but they still consider it essential for the quality assurance process even though

[14]EHEA – European Higher Education Area was launched in 2010, at the 10th anniversary of the Bologna Process, at the Budapest-Vienna Ministerial Conference. It aims at assuring compatibility, coherence and analogousness between the European higher education systems

improvements should be made (Salih, 2013). For self-evaluation the success depends on mutual support, openness and cooperation between teachers (Vanhoof, Van Petegem, Verhoeven, & Buvens, 2009), but an important role is also played by the educational manager which should aim at developing an atmosphere suitable for fair and equitable self-evaluation in order to encourage a proper quality assurance process. One of the main challenges in teacher evaluation is the teacher resistance, and even though evaluation is not a new phenomenon can still generate scepticism, tension and stress among university teachers. They are very used to play the evaluator, but are not as comfortable being evaluated. Contributing to this situation in some cases is the fact that the evaluation process does not have stable and clear rules of how is made, missing a transparent overview of the evaluation process. The lack of proper organization of the evaluation process is linked with the misuse or lack of use of the evaluation results, creating an impossibility for innovation in the teaching process. Due to the fact that even though the evaluation takes place, but the effects cannot be seen, a perpetuation of scepticism and rigidity towards teacher evaluation occurs. For a better understanding of this process the figure below was developed.



Possible challenges in teacher evaluation

(Own source)

As teacher evaluation systems started developing, studies measuring their effect become more and more popular. And the results managed to show that there is a significant increase in teaching effectiveness, measured by students' learning outcomes, when the teachers are exposed to an evaluation environment. More interesting is that evaluation keeps its positive results even more than one year later after the evaluation moment (Taylor & Tyler, 2012). Today researchers try to discover the right mix of teacher evaluation methods, as part of a functional system, which can generate precise date about the way teachers organize their teaching and perform daily making use of scales for evaluating teaching effectiveness (Altaf, Kamal, & Hassan, 2013).

2. Methodology

The aim of this study is to analyse the universities' quality assurance documents regarding teacher evaluation in order to identify similarities and differences at structural and qualitative level. The main hypothesis is that the documents present significant structural similarities, but the integration of teacher evaluation as an important component to quality assurance management is different.

To choose the universities to be analysed in this study the QS University Ranking 2015 was used, due to the fact that it offers the possibility to rank universities by different criteria. One of the criteria is Teaching Rating, being the most relevant to the study. Because this study is focusing on Romanian universities, two of the ranked Romanian universities were chosen for the comparison, the first Romanian university ranked and the last Romanian university ranked in the QS University Ranking 2015, precisely University of Bucharest and West University of Timișoara. These two universities will be compared with the first university ranked for Teaching in the QS University Ranking 2015, Aalborg University. For all three of the universities the documents regarding the procedure of teacher evaluation were analysed using the eightdifferent factors, which were chosen based on qualitative research method for documents analysis (Bowen, 2009). Each of the factors has to be at least mentioned in the teacher evaluation procedures and will be offered a measurement depending to the extent of their presence in the three documents. The factors are:

1. aim / purpose of the teacher evaluation

   The presented aim/purpose should be on the lines of continuous improvement of the teaching activity, taking into account partial evaluation results and a concrete final target, in line with other components of the quality assurance management process.
2. evaluation timeframe / when is the evaluation taking place

   The timeframe of the evaluation during an academic year should place methods at the right time in order to allow an assessment and reconfiguration of the teaching process.
3. types of teacher evaluation

   The ideal situation is when all of the three types of teacher evaluation are being used: student evaluation of teaching performance, peer evaluation and self-evaluation in order to create a comprehensive image to the teaching practice.
4. number and types of instruments used in teacher evaluation

   In the same line with the previous factor, an array of instruments for each of the types of teacher evaluation has a significant contribution in building a complete picture of the teacher activity.
5. percentage of direct (self-evaluation) versus indirect (by others) sources of information

   The number of indirect sources of information should be at least equal with the number of direct sources to be able to analyse the teacher performance as objectively as possible.
6. focus of evaluation

What will exactly be evaluated. The teachers need to know what components from their activity will be assessed. This type of information reveals what is important for each university, what is the most valuable component of the teacher activity and tells the teachers how they should approach it.

7. use of evaluation results

   Shows how the results of the evaluation will be used by the university, by the faculty management, by teachers, by students, etc. This factor reflects the long-term perspective of the universities in setting up quality assurance documents in order to reach their goal.

8. last update of the document (date)

   How old or new is the procedure of teacher evaluation is an indicator to the level of changes that affect quality assurance documents.

The above factors can offer an overview of the three documents, even though they might vary in size, degree of specificity or terminology. One of the universities presents three different documents, for each type of evaluation used, but it will be considered as a single compact document for the purpose of the analysis. From this point on, the University of Aalborg will be referred to as UA, the University of Bucharest as UB, and the West University of Timișoara as UW.

3. Results

Each of the documents regarding the teacher evaluation was analysed using the eight factors mentionedabove. A summary of the result can be observed in Table 1. The results of the analysis for each of the factors show the following outcomes: UA states an aim that explicitly is directed towards teaching improvement, while UB and UW just tangentially mention improvement as their goal; UA and UW use at least one type of evaluation every 6 months, while UB has an annual procedure for evaluating teaching activity; all of the three universities use all three types of teacher evaluation, self-evaluation, peer evaluation and student evaluation of teaching performance.UB and UW both use the same instruments in running the teacher evaluation, utilising for each of the evaluations type mentioned above one type of instrument, self-evaluation form, student questionnaire and peer evaluation form based on peer observation of activity, while UA additionally appeals to alumni questionnaires, student focus groups and analysis of student academic results as a determinant for teaching effectiveness. The focus of the evaluation for UA is on how teachers are dealing with teaching in specific situation, how do they organize the learning programmes and what educational progress is registered; UB and UW both focus on teaching and research activity, but additionally UB is valuing institutional activity of the teacher and the effort put towards student-teacher relationships. The post evaluation results are being used by the UB to see if the institutional and individual desired perspective are met and are vaguely described at all. UW mentions implementation of changes based on the measured data, improvement of the educational process quality and assurance that the implementation procedures are correct and UA uses the results to analyse the cooperation between different departments, to implement necessary changes in the

instructional activity, to develop strategies for improving teaching quality, but also to verify the success of previously implemented improvement strategies and last, in order to be able to offer feedback to the students by granting access to teachers' evaluation.

Table 2. Analysis summary

Analysis factor	Aalborg University	University of Bucharest	West University of Timișoara
Aim / purpose of teacher evaluation	Improvement	partially improvement	partially improvement
Evaluation timeframe	6 months	12 months	6 months
Type of evaluation	self-evaluation	self-evaluation	self-evaluation
	peer evaluation	peer evaluation	peer evaluation
	student evaluation	student evaluation	student evaluation
Evaluation instruments	self-evaluation form	self-evaluation form	self-evaluation form
	student focus group		
	student questionnaire	student questionnaire	student questionnaire
	alumni questionnaire		
	student academic results		
	peer evaluation form (observation)	peer evaluation form (observation)	peer evaluation form (observation)
Indirect instruments	5	2	2
Direct instruments	1	1	1
Focus of evaluation	teaching in specific situations	teaching activity	teaching activity
	the organization of the study programmes	teacher-student interaction	
	Tracking of educational progress	research activity	research activity
		institutional activity	
Use of evaluation results	analysis of the cooperation between departments	institutional perspective	implementing changes based on the income measured data
	implementing necessary changes in instruction	individual perspective	improving the quality of the educational process
	developing strategies for improving teaching quality		assuring the implementation of procedures
	verifying the success of previously implemented strategies of improvement		

	giving feedback to students		
Last update of the document	2015	2009	2012, partially updated in 2015

The significant effort in gathering all the data about teaching activity can easily be steered into the right direction offering a possibility to host innovation and change for the teaching evaluation system, but also to the system as a complete quality assurance system. Regarding the instruments used for the teacher evaluation, for both UB and UW there is a lack of instruments that could offer a deeper look into the teaching performance and activity, even though the proportion of direct versus indirect sources of information is right. UA uses indirect instruments that allows a more comprehensive analysis, staying true to their aim, by reaching out to alumni questionnaires and student focus groups. It is interesting that the student learning outcomes play a role in the teacher evaluation process for UA, rising a lot of possible interpretations to the procedure(Steele, Hamilton, & Stecher, 2010; Zabaleta, 2007). The time frame of the evaluations does not present significant differences, but there is a major difference between the last update of the documents. A newer, updated document is much more likely to be a reference point in the quality assurance process.

The analysis has the specific limitations of a comparative study of documents. The documents regulating the teacher evaluation process in higher education institutions can show mostly structural similarities and differences, but there are in depth content details that can be separately analysedin order to track better the alignment with policy documents, national strategies and quality assurance management at a bigger scale. Also, the analysed documents were not constructed to meet quality assurance criteria, but to be functional documents inside the organization, justifying in this way potential minuses of a consistent quality assurance instrument. Because of the above mentioned limitations a general conclusioncannot be drawn, but it can be said that teacher evaluation procedure documents follow a similar pattern and touch on similar information, even though there can be seen a difference on the approach of the evaluation focus and the capitalization of the teacher evaluation result towards innovation and continuous development of teaching performance.

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Environmental Education and Educational Farms: a German Concept

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Abstract: The article provides an insight into a teaching unit designed for an educational farm in Germany. Environmental education and sustainable development are important aspects of the country's curricula for biology. As a part of environmental education in biology, children staying on the farm engage in authentic activities which are essential for life on the farm to function. The unit itself dealt with bees and other pollinating insects and lasted one day. It was an offer which young students staying on the farm for several days could choose from apart from other tasks. It consisted of a theoretical part dealing with various aspects of bees, their habitats, and pollination, as well as a practical part in the afternoon in which students could apply their knowledge and build an insect hotel.
Keywords: environmental education, educational farms, hands-on activities, teaching concept, pollinating insects,

1, The Concept

Lately, environmental education has received more and more attention, as discussions about sustainability have become central topic to the public and in the media (Stevenson et al., 2013). Environmental education and education for sustainable development are hard to separate, they both have the goal to "educate for a sustainable future or about environmental issues" (Smeds et al., 2015, p. 384). Stevenson et al. (2013) mention several characteristics of environmental education:

- deals with normative questions
- is interdisciplinary
- is concerned with "the agency of learners in participating and taking action (…)" (Stevenson et al., 2013, p.2)
- takes place outside of formal educational settings
- matters on the global and local level (Stevenson et al, 2013, p. 2)

Environmental education thus teaches about real life issues, implies hands-on activities rather than teacher-centered instruction with a focus on textbooks, and stresses interdisciplinarity (Pandey, 2007). Environmental education implies that "students are engaged in hands-on, active learning that increases their knowledge and

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awareness about the environment" (Pandey, 2007, p.19). It encourages inquiry and helps students develop "critical thinking, problem solving, and effective decision making skills" (Pandey, 2007, p.19). It is education in and from the environment, where learning occurs outside the classroom (Smeds et al., 2009).

The goal of environmental education is thus to create a kind of environmental competence, which includes cognitive, affective, as well as psychomotor and practical skills (Koutsoukos et al., 2015). It should foster and raise "awareness, understanding, and the skills necessary to obtain understanding" (Palmer & Neal, 1994 in Smeds et al., 2009, p.2). This understanding includes the concern about the "interdependence in urban as well as rural areas in terms of economic, social, political, and ecological aspects" (Dillon et al., 2006, p.110). Experiential learning has become a part of environmental education with putting the focus on the students' lives and their active participation (Koutsoukos et al., 2015). This approach makes learning "more dynamic" (p. 24) and fosters the development of confidence and autonomy. Students are more likely to understand the natural world they are living in when they observe and investigate it directly, being engaged into learning (Koutsoukos et al., 20015). The evidence from research around the world is that "field work can have a range of positive impacts on participants" (Dillon et al., 2006, p.110)

Particularly on educational farms, students build a connection to animals and plants, tools and machines, and also to their fellow students, farmers, and teachers. Apart from these aspects, students are immersed in tasks and their completion as well. When mastering tasks, this is reflected in "changed posture, body movement, in comments or exclamations, in their cooperation with others…" (Jolly & Krogh, 2011, p.3.). Students do something which is valuable to them (Jolly & Krogh, 2011).

Agriculture is a central part of science education, especially considering its crucial role for sustainable development. The fact that many young people "have lost their connection with agriculture in daily life" (Bickel, 2014, p.33) resulting in misconceptions and even prejudice seems to be even more dramatic considering the crucial role agriculture plays (Bickel, 2014). Also the results of the ROSE study (**r**elevance **o**f **s**cience **e**ducation) revealed that for the German sample, items regarding agriculture were rated the least interesting. The projectinvestigates and compares important factors for science learning (for more information see http://roseproject.no/?page_id=4). The same applied for other countries, such as England, Norway, and Sweden (Bickel, 2014). Taking into account the lack of connections students have to agriculture and the increasing theorizing in schools with practical work decreasing, which, in addition, "widens the gap between the local community and the school" (Jolly & Krogh, p.4), working on a farm can provide "meaningful contexts" (Bickel, 2014, p. 6) in which children are motivated to learn through practical experience and their senses. They thus get a chance to gain insights into "ecological connections" (Bickel, 2014, p. 6). The model by Smeds et al. (2015)

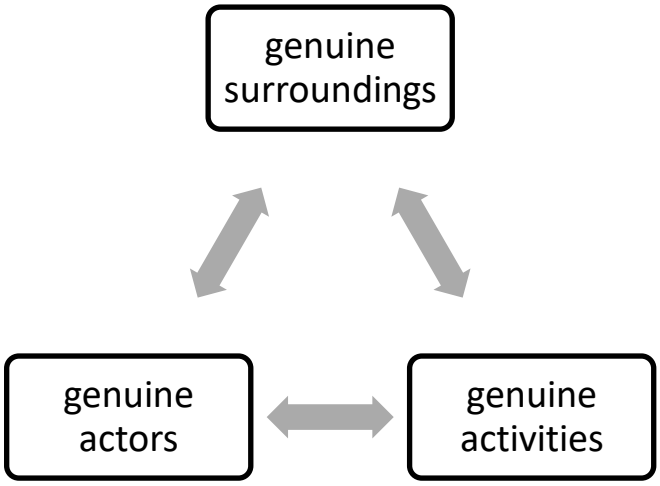


Figure 2. Farm Education and the farm as an authentic learning environment. Model adapted by Smeds et al. (2015).

illustrates the learning experience on such a farm (see figure 1): it connects genuine surroundings with authentic actors and activities. Only when all these components are present, one can talk about a truly authentic learning experience on a farm (Smeds et al., p. 15). There are several ways in which nature can be experienced,namely through the instrumental (e.g. including taking care of animals and plants on the farm), scientific (e.g. exploring plants and animals), social (e.g. establishing a relationship with animals on the farm), ecological (e.g. learning about ecosystems), as well as aesthetic (e.g. recognizing the beauty of nature) Farm education thus provides opportunities to experience nature in various ways. They are central to teaching about sustainability and can "contribute to the awareness for the conservation of biodiversity" (Bickel, 2014, p. 11).

Environmental education and raising awareness of sustainable development are embedded in German curricula for all school types from the elementary level to secondary education. In different science subjects, the importance of environmental protection and sustainable living is stressed. In addition, the curricula mention the importance of learning at places outside the classroom. For farm education specifically, there are many different models in Germany (Bickel, 2014). There are various offers, ranging from one- hour guided farm trips to a farm stay of several days (Bickel, 2014). Even though the offer is diversified, most of the programs focus on children or young adolescents (Bickel, 2014).

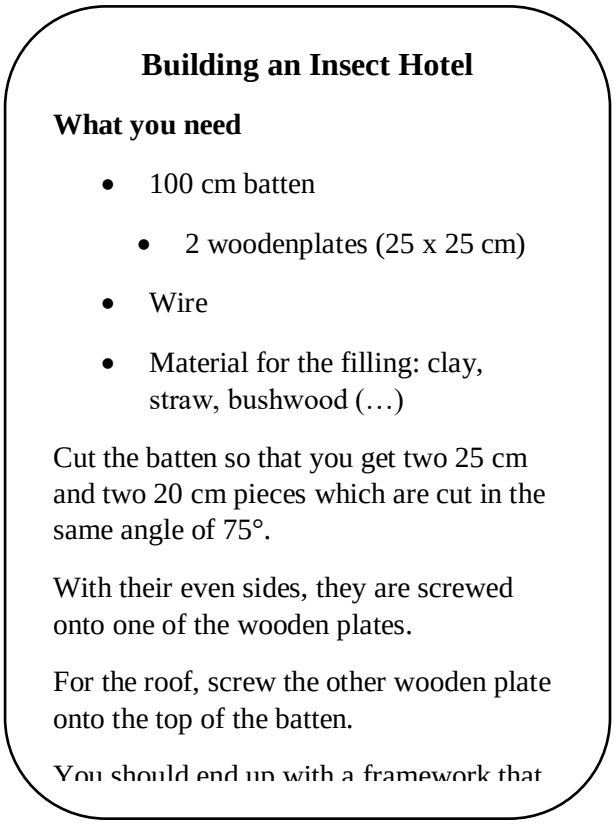
When looking at the effects of such programs on students, there are various positive outcomes that educational farms elicit. In his literature review, Bickel (2014) summarizes the effects of farm education and similar "educational settings" (p.12) as having an influence on the students' attitudes towards nature, their knowledge about nature and agriculture, their academic achievement, nutritional and social behavior, and their motivational levels. When Haubenhofer (2010) investigated different educational activities on a farm which differed in the time spent there, he found that teachers thought that regardless of the length of the stay, students appreciated the farm, physical work, and caring for the animals. Over the course of longer stays they stated that students also valued nature more,

improved the relationship with their peers, and gained more self-esteem. Haubenhofer (2010) also asked students directly for their opinion. They liked the chance to work in groups and on their own, the physical activity, working with animals and taking care of them. He also observed that in case children did not get the chance to engage in practical work, some aspects of working on a farm were not appreciated on their part. Another example of an evaluation of the effect of educational farms on pupils is the project *The Farm for City Kids.* It is an educational program in which children from urban areas get the chance to either visit a farm for a day or stay one week to gain insights into agriculture and farm life (Powers & Powers, 2006). An evaluation of the program showed that staying at a farm led to an increase in self-esteem and confidence, improved teamwork, a better understanding of agriculture, appreciation of nature and farm animals, as well as a healthy lifestyle (Powers & Powers, 2006). In a meta-analysis,Zelezny (1999) found that educational interventions like these, involving young participants and active work, improved environmental behavior most effectively.She also states that Dresner & Gill (1994) and Jordan, Hungerford& Tomera (1986) found a significant relationship between responsible environmental behavior and experiences in nature as well as active participation in activities outside the classroom.

The farm for which the concept was developed was the first of its kind in Germany when it was re-opened for educational purposes in 1985.Like many other concepts of educational farms, the idea behind the offer is to let students live like farmers in order to give them an insight into ecological and sustainable agriculture and lifestyles. Students usually stay on the farm for five days. During their stay several tasks are handed over to the students in order to ensure (efficient) life on the farm. They are divided into subgroups and take responsibility for the particular task they choose. While students carry out their tasks, they are supervised by staff working on the farm. Tasks which need to be carried out on the farm and which are essential for running it sufficiently and successfully include caring for the farm's animals, vegetable and fruit growing, arable farming as well as housekeeping. The concept of the educational farm thus follows the notion of active, learner-centered learning as a central part of environmental education. Students engage in authentic tasks which are crucial to living on a farm with animals and plants typical for this region of Germany. During their stay on the farm, they are guided by staff which is part of the farm. All aspects of truly authentic learning (see figure 1) are thus being followed.

The small groups they work in consist of four to five students. Group work is carried out two times a day: from 10 a.m. to 12 p.m. and 2:30 p.m. to 4 p.m. One part of a working group also includes working with bees.Students are expected to be somewhat familiar with the topic since it is part of the German biology curriculum for the particular grade. Like the general procedure of a day on the farm, students also take part in two working phases. The first one lasts approximately two hours. In this working phase students approach the topic through different stations dealing with individual aspects of the topic (for an overview of the day see table 1). Working on the stations, students build a theoretical basis for the practical part of the group work in the afternoon.

Figure 3. Instructions on how to build an insect hotel as a practical application for the knowledge the pupils acquired during working on their topic



Building an Insect Hotel

What you need

- 100 cm batten
- 2 woodenplates (25 x 25 cm)
- Wire
- Material for the filling: clay, straw, bushwood (…)

Cut the batten so that you get two 25 cm and two 20 cm pieces which are cut in the same angle of 75°.

With their even sides, they are screwed onto one of the wooden plates.

For the roof, screw the other wooden plate onto the top of the batten.

You should end up with a framework that

Table 3. Structure of the day for the group working with bees.

Working phase	Content/ station
10 a.m.-12 p.m.	Theoretical foundations through stations: I) morphology II) life in the colony III) pollination, diversity of pollinating insects IV) theoretical aspects of an insect hotel
2:30 p.m. – 4 p.m.	Practical work: Building an insect hotel

Working on the individual stations in the theoretical part is intended to last approximately 30 minutes. The first one deals with the honeybee's anatomy. For observing the insect's anatomy in detail, every students gets a binocular as well as a honeybee preserved in alcohol. The students have the task to carefully observe how the mouth parts are shaped.

To secure their results, they draw their observations on a control sheet. The second station deals with life in a bee colony. For this purpose, students observe bees in a showcase and get the chance to taste honey directly from the stock. Working on this station, students are intended to recognize that bees live in colonies. Working on the next station, students learn about pollination and other pollinating insects apart from the bee. Bees can also be observed in their natural habitat since the farm has an orchard. Students can thus experience pollination in real life. For further illustrating the process of pollination, a movie is shown and a model is used to explain the phenomenon in greater detail. This station is also used to talk about the ecological value of bees and other pollinating insects. The last station of the theoretical part is the insect hotel. Here students realize that different kinds of pollinating insects have their habitat in this "hotel". The students then discuss and work on the question what makes an ideal insect hotel. This station is intended to give students the theoretical basis for the practical part in the afternoon.

For the practical part students build their own insect hotel in the farm's wood work shop. Here they apply their newly acquired knowledge about the criteria for a good insect hotel since they get the chance to build their own one. They collect the material needed for their hotel outside. To support students when building their own hotel, instructions are handed out (see schema in figure 2). After finishing their work, students present the results of their work to the other groups which worked on different topics.

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Innovative Practices for Higher Education Assessment and Measurement - Book review

Otilia Sanda Bersan[18]

Editors: Elena Cano (University of Barcelona, Spain) and Georgeta Ion (Universitat Autònoma de Barcelona, Spain)

Abstract: *Innovative Practices for Higher Education Assessment and Measurement* it's a reunion between theoretical fundamentals, practices in higher education and political approach. This publication gives a new dimension to the assessment in higher education and offers a new and an innovative perspective to this topic.

Keywords: assessment, higher education, practices

This book is dedicated to all teachers and students from university level, educators, educational sciences specialists, policy makers, administrators and to specialists interested in higher education. The book came out in July 2016 and in the 20 articles and 472 pages contains the following topics (http://www.igi-global.com/book/innovative-practices-higher-education-assessment):

- Assessment Design
- Brain-Compatible Classrooms
- Comparative Judgement
- Competency-Based Assessment
- e-Assessment
- Peer Assessment
- Project-Based Learning
- Self-Regulated Learning
- Serious Games
- Student Involvement
- Teacher Self-Assessment

Also, in this book it is specified the role of the teachers and students in assessment activities. Both subjects are involved in the process of assessment, but the students participations is the most important aspect in the process, especially in their own assessment, to make a reflective assessment, and to introduce new technologies etc. Also

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these books add new tendencies for feedback, e-assessment, competency-based assessment and learning centred assessment.

All the articles of the book include theoretical, practical and research from higher education level, articles writhed by specialists from allots of countries from Europe, Middle East, US and Australia.

From the *Preface* this book is presented like „a contribution to the field of educational knowledge and more specifically to the sub area of learning process and assessment based on students' competences. The fact of assessment is a key element in the learning process, while guiding these processes and determines the type of cognitive skills that students develop, is something well known. Therefore, the book is not intended to justify the importance of assessment but to enhance a different conception on the topic, in the direction indicated by the current pedagogical knowledge centred on constructive approaches and connectives models; reviewing the agents involved; looking for a truly formative purpose through implementation of dialogic feedback experiences and incorporating possibilities of technology. The book indeed offer a framework on the current situation and to open new perspective on assessment practices."

(http://www.igi-global.com/pdf.aspx?tid=159961&ptid=147029&ctid=15&t=preface)

The *first section n*includes seven chapters based on assessment the ories in the national and international contexts.

The first chapter, written by Mark Claver presents the limits between feedback, feed forward and defining self-regulated learning for assessment context. Also in this chapter we can find best practice and models for the topic above mentioned. Also feeding back and feeding before it's the topic of the next chapter, authored by Zineb Djoub. The author presents practical strategies and models for teachers and for students in this regard.

The next chapter, authored by Guardia,Crispand Alsina presents the best opportunities of e-assessment for higher education.

The 4th chapter written by Mohammed KhalidiIdrissi, Meriem Hnida and Samir Bennani includes ,,competency" as a key word for the assessment. Also in this chapter we see the transition from a conceptual model to an operational concept of competency-based assessment.

The 5th chapter includes EFL Brain model of learning centred by the activities that not all students learn in the same way. Also the role of feedback in this case it's a motivational one.

The 6th chapter is based on formative assessment and evaluation of teaching and the student's participation in this case.Gina Mariano presents a research about how students can evaluate and percept the courses.

This section is finished by the contribution of Marije Lesterhuis, San Verhavert, Liesje Coertjens, Vincent Donche, and Sven De Maeyer on the research of sumative assessment in the field of competency.

The second section has, like the first section, seven chapters, that include students' perspectives to academics assessment written by various researches in this field.

The first chapter on the second section, authored by Rebecca Hamer, and Erik Jan van Rossum presents an historical conception of assessment at higher education level. On the other way, in the next chapter, Eddy White presents reflective and innovative case studies of the self-assessment of teachers.

Maite Fernández-Ferrer and Laura Pons-Seguí authors of the next chapter present the concept of „feed-forward" as the base of learning process of students.

The concept of ,,self-assessment" is presented in the chapter no. 11, by Gloria Nogueiras, David Herrero, and Alejandro Iborra. Authors details case studies and practices form Spain universities.

Victoria Quesada, Eduardo Garcia-Jimenez, and Miguel Angel Gomez-Ruiz, presents in the next chapter the process of assessment and the specific level of students participation on the process.

The online assessment and the peer assessment is presented in the next chapter by Alda Pereira, Luis Tinoca, and Isolina Oliveira, in a longitudinal research from Portugal.

The last chapter of section no. 2, is based on e-assessment in literacy in higher education level. Gregorio Rodriguez-Gomez and María Soledad Ibarra-Sáiz present an international project research in this field.

The *third section* of the book includes six chapters. First chapter, by Stefanie Panke presents aspects of pedagogical implementation of assessment and development practical applications in this area.

The next chapter from this section (Patrick Baughan, City University London, UK) is dedicated to an innovative experience of life competence-based assessment.

The chapter no. 17 (authored by Patrick Baughan, UK) and chapter no. 18 (James G M Crossley, UK) shows assessment in professional programmes and also in health sciences field.

From Romania: Simona Iftimescu, Romita Iucu, Elena Marin, and Mihaela Monica Stingu in the chapter no. 19 present an inquiry into assessment of master students programmes. This chapter clarified assessment aspects of master students in two years studding, based by Bologna process.

The last chapter, no. 20, authored by Catalina Ulrich and Lucian Ciolan presents a good perspective on the Project Based Learning leads to the type of authentic learning needed for master degree students.

The entire book, all the 20 chapters, give a new and innovative perspective to the assessment in higher education, gives allots of examples for teachers and students and presents best practices proved by research.

The relevance of the book is for both scholars, students and academic leaders in higher education context, all of them will find in this book valuable examples and guidelines in order to experiment new ways of assessment and to improve their practices.

Diaspora in the Scientific Research and Higher Education in Romania -Diaspora and her friends. Event presentation

Elena Liliana Danciu[19]

The initiative of the president of Romania, of 15th February 2016, to launch a wide public consultation regarding the field of education and research, with the purpose of drawing the directions of development on the level of the year 2030 horizon, was the first step of the undertakings aiming to maintain the connection with the diaspora and to involve it in the Romanian research on the Higher Education level.

In the first stage (2016-2017), the consultation aimed at catching up the vision of the society (NGO, educational actors, schools and universities, teachers, pupils, students, public institutions, employers, experts, etc.) and the second, the period 2018-2030 aims at converting it into a national, unitary, integrated vision and in strategic objectives of the country. 2017 will have as objective the elaboration of a strategy and of an operational plan which illustrate the layout for achieving the assumed challenges, while 2018, promoting a coherent legislative mix and an adequate governance system, will aim at starting the reform for an Educated Romania.

The National Debate for Education and Research conducted in Timișoara within the Conference "Diaspora within the Scientific Research and the Higher Education in Romania- Diaspora and its friends" by the Western University and organised by the Department of Educational Sciences of the Faculty of Sociology and Psychology was grounded on a new, inclusive, bottom to top approach, which started from the needs of the society and from the good practices and included an online consultation tool, thematic regional debates, as well as events organised by all third parties (NGOs, coalitions, institutions, private actors). The description of the first stage of the debate is available at: http://www.presidency.ro/ro/angajamente/romania-educata

Within the event *Diaspora within the Scientific Research and the Higher Education in Romania- Diaspora and its friends*, took place a session dedicated to this consultative undertaking, unfolded within the exploring workshops which lasted more than two hours and aimed at identifying the priorities and the vision for research in Romania (2030).

There were debated topics such as:

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- *Predictability, stability and professional prestige in the development of the teaching and research career.*
- *Ethic, impartiality and scientific rigor in research*
- *The collaboration between the academic and research environment and the private environment*
- *The transfer of the research results on the level of the public policies and the practice in the field*
- *The mission and functions of the higher education institutions - the teaching function, the research function, the public/social function*
- *Cutting short the cycle of research and innovation: the transition from the research idea to the market (product, policies)*
- *Open innovation*
- *Social innovation*
- *Romania in the European Field of Research*
- *Smart specialization*
- *The system of the public research organisations - focus and correlation with the economy's structure and the society's challenges*
- *Autonomy, management and leadership within the public research organisations*
- *Open science*
- *Research, innovation and tech entrepreneurship*
- *International competition for talents in the research and innovation field*

Exploring workshop: *Education for innovation - how do the new educational systems answer to the new generations* Moderators Ph.D. Prof. Romiță Iucu (University of Bucharest) Ph.D. Prof. Alis Oancea (Univ. of Oxford) Ph.D. Prof. Simona Sava (Western University of Timișoara) used a method based on working -groups and the purpose of the session was to offer the participants the chance to state possible suggestions and recommendations regarding the priorities and vision for research- development-innovation (2030), starting from a set of debate generating topics.

Depending on the schedule of each workshop, the session dedicated to the National Debate for Education and Research lasted between 90 and 120 minutes, within which, the moderator had an essential role in presenting the debate context, the method by which the discussion topics were chosen from the list presented, as well as the objectives of the session (*by open vote, by post-it, by reasoning, etc.*), mediated a debate for choosing 5 topics from the list of 15 to be debated in 5 groups balanced as number, depending on the interest for a certain topic of the 5 voted as priorities.

The thematic discussions took place in two rounds aiming at:

- Identifying the bench-marks (3-5) and the good practices examples in the field of scientific research, development and innovation (Round 1/15 minutes)

- Converting directions (as country objectives) (3-5) for Romania at the horizon of 2030, in relation with the identified bench-marks (Round 2/25 minutes)

At the end of the second shift, the completion of the exercise and the reporting in plenum were announced by the moderator, centralised and included in *a ppt template to be projected.*

Each group presented its discussion results in plenum (5 minutes/topic), following the structure of the rounds (3-5 benchmarks/ each topic+ 3-5 converting directions/ each topic) and at the end of the presentation, the moderator closed the session, mentioning the presentation of the conclusions regarding the vision and country objectives concerning research, development and innovation in Romania: aspirations and directions for measures for the Educated Romania 2030, within an interactive plenary session.

The panel with the topic *National and international developments in approaching innovation in education* in which the main actors were: Dr. Magdalena Isac (Univ. of Groningen/ CRELL_EC), Drd. Dakmara Georgescu (UNESCO Programme Specialist for Curriculum, Teachers and Higher Education), Dr. Alexandru Crișan (Senior Adviser, the World Bank) was moderated by Ph.D. Prof. Carmen Crețu (UAIC, Iași) while Ph.D. Prof. Simona Sava (Western University of Timișoara) presented the last Studies and researches concerning innovation in education (OECD-CERI) and Ph.D. Prof. Romiță Iucu, Ph.D. Prof. Lucian Ciolan (University of Bucharest) the study ,,Romania 2030 – educational trends and challenges.,,

Of a real interest were also the six debate sessions.

The first, entitled ,,*Changes that should be brought to the educational system from the perspective of the evolution trends 2030* (Input, issues, researches to be made, key-messages) had as moderators Ph.D. Prof. Anca Nedelcu (UB) and Ph.D. Prof. Ion Albulescu (UBB). Drd.Dakmara Georgescu (UNESCO) emphasised the *Dilemmas of the change from an international perspective* and Senior Adviser Alexandru Crișan (BM): *Educational change – a "game with glass* beads" (Herman Hesse): certainties, uncertainties, paradoxes.

From the office in the classroom: a UNICEF study regarding good practices in the early education in Romania was the title of the investigation conducted by Ph.D. Prof. Anca Nedelcu (UB) and Ph.D. Prof. Carmen Rusu (Univ. P.V. Montpellier) emphasised *Priorities of the Romanian education regarding early school abandon and integration on the labour field*

The topic of the second debate session was: *Reconsidering the results of learning from the perspective of the evolution trends 2030 Input, issues, researches to be made, key-message* moderated by Ph.D. Prof. Mușata Bocoș (UBB) and Ph.D. Ass. Prof. Mariana Momanu (UAIC). Dakmara Georgescu (UNESCO): presented Controversies regarding the `results of learning` , Magdalena Isac (Univ. of Groningen): The results of learning from the perspective of the new priorities for European cooperation in the field of education and professional development (ET2020) and Carmen Rusu (Univ. P.V. Montpellier) emphasized *How close is the today's teacher to the tomorrow's pupil?*

The presentation of the debates synthesis of the two plenary sessions managed to emphasise some uncertainties but also some opportunities.

Debate session 3: Reconsiderations regarding curriculum, the conception of the educational environment (digitally mediated) and of assessment for stimulating innovation in input, research that is to be done, key messages; moderated by Magdalena Balica, PhD (ISE) and lecturer Mariana Crașovan (UVT). Interventions from:

- Musata Bocos, Daniel Andronache (UBB): *The status of curriculum integration in the theory and practice of education. Critical analyses*
- Alexandru Crișan (BM): *Curriculum - in what direction? A new wave? "A thousand and one questions"; a few answers (a look toward/from the Emirates in the Gulf)*
- Dakmara Georgescu (UNESCO): *Learning and curriculum in the digital age: what is "new" and what is "old"*
- Catalina Lomos ("LISER, Luxembourg): *MathemaTIC - a digital platform that supports differentiated and individualized learning of mathematics in primary school. A case study of the implementation and assessment strategy for this innovation in Luxembourg*

Exigencies in educating teaching staff for the stimulation of the education of future innovators were the topic of debate session no. 4 moderated by Professor Carmen Crețu, PhD (UAIC) and Reader Cătălin Glava, PhD (UBB). The guests of the session made interventions by means of research such as:

- *For an integrated public policy regarding human resource management in education* (Serban Iosifescu, ARACIP):
- "*Reference frameworks" for policies and strategies for educating teaching staff: international milestones for today and tomorrow* (Alexandru Crișan, BM):
- *Influencing national policies related to teaching staff - SABER studies promoted by the World Bank* (George Pataki (BM/ UAIC):
- *What are the results of Romanian higher education? Discrepancies between teaching qualifications obtained by graduates and labour market demand* (Ion Albulescu, Mirela Albulescu, UBB):
- *Comparative study regarding the initial education programs for teaching staff in Romania and the US. A few conclusions* (CătălinGlava, UBB):

In Debate session 5: *Changes to be made in governance and in the implementation of policies for innovation in education,* moderators: Madlen Șerban, PhD (ESF), Professor Lucian Ciolan, PhD (UB)

maintained the active interest in the discussed issues and monitored analytical interventions regarding:

- *Public policies in vocational education and training (VET): innovation and challenges. Subtopics: 1. formulation of VET policies and their timeline: innovative approaches; 2. implementing public policies in VET: roles and innovative practices* (Madlen Serban, ETF):
- *Lights and shadows in establishing the basis for education public policies using evidence: "fairness" and "equal chances" in education*" (Șerban Iosifescu, ARACIP
- *The internationalisation of higher education: opportunities for Romanian universities* (Dan Popescu, NARIC, UK):

The last debate session, no. 6, moderated by Ciprian Fatrusnic, PhD (IȘE) and Simona Iftimescu (UB/Presidential Administration) was about *Priorities and visions for (educational) research in Romania (2030) Input, issues, research that is to be done, key messages, conclusions*) and the guests highlighted key aspects identified during accomplished research:

Educational research – *Performance, visibility and relevancy for the national area* Carmen Cretu (UAIC):

Mobilisation of research at the level of educational practice: challenges and opportunities Georgeta Ion (Autonomous University of Barcelona)

The plenary analyses synthesized the debates from the sessions, drew conclusions and determined future actions.

The debates of Workshop ***Education for innovation - how education systems respond to new generations*** highlightedthe elements that could bring innovation in research:

- TIC – with advantages related to performance and the diminishing of effort and imminent dangers to physical and mental health
- Good practices in other systems that involve transfer and adaptation
- Research of education phenomena and processes
- Entrepreneurship elements promoted in education
- Usage of open educational resources
- Multiplying authentic learning experiences
- Focus on heutagogy elements

It was argued that innovation in education is not enough, and that there is a need for education that promotes innovation, reflectiveness, that capitalizes on interdisciplinarity, that changes even the perspective regarding research and education and that can allow a real coherence between policies (ideologies, philosophies), (on the basis of which curricular counselling is generalized, counselling practices in the area of education for innovation are diversified, the professionalization of the field is accomplished and the need for corresponding expertise is fulfilled), research and practices, so that the development of innovation skills is achieved through research and so that education is for change.

In research and innovation there is still a great deal of bureaucracy, in the determination of solutions the focus remains on results and underfinancing represents a major impediment. NO POWER. NO POINT.

In reference to innovation for learning, there are expectations of learning for innovating, educational analysis at a micro (action research) and macro (system-reform) level, capitalization on results of learning at a system level.

Learning for innovation involves creativity, change, valorisation, adaptation, development, education, curiosity, validation, collaboration, systemic expansion, ambition, perseverance, consistency, research, asking questions.

The analysis of the results obtained within the debate sessions was done based on answers to a series of questions such as: ***What do you mean by „an educated Romanian 19 year old" in 2016 and 2030?***

Learning outcomesfor 2016 must characterize the student as Beautiful,Free, Open, unselfconscious, With open mind, Critical, active citizen , whereas for 2030 the adjectives should be along the lines of And beautiful, more freely, Open, freely, creatively, With open mind, Critical – Reflexive, European citizen proactive, Equal opportunity, Autonomous (decision-financial), emotionally mature digital wise.

In regards to the second one; ***What contextual (social, economic, cultural, political, structural, system-level etc.) factors enable or inhibit the achievement of these outcomes in Romania?***

highlighted negative aspects included the lack of a development strategy for the educational system, discontinuity in interventions, lack of perseverance, the national research strategy that DOES NOT finance educational research and a disconnect from real life.

The presence of education in public discourse, the valuable community of specialists (Romania and Diaspora), and availability are nominated as positive aspects**.**

A general vision, a national strategy for innovation in education based on coherence, relevancy, fairness, reaction, public educational policies, a personalized curriculum (tendency 83% personalized, 17% frontal), theoretical results of research correlated with educational practices are the answers given

to the question:***What parts of the system face particularly acute challenges in terms of educational quality and equity***

According to the answers given for ***What researchers are to be done?,*** research teams act in order to establish coherent educational policies, for the internationalisation of higher education, the introduction of curriculum counsellor status by means of bachelor studies programmes, the revigoration of the concept of a curriculum area in the spirit of curriculum related innovation and of the paradigm of competence, the exercise of discourse practices related to learning at the policy level, the creation of discourse practices related to learning at the policy level, qualitative research (qualitative research culture), research – action, of analyses of educational needs, learning analyses / big data in HE, of the general profile of the young person/adult, qualitative and quantitative research on the results of learning

The next question***, What measures and indicators of learning outcomes need to be prioritized in Romanian education in the medium term, and what part does innovation play in this?*** brings into the discussion answers related toresults of learning – skills,innovative, diverse ways of assessment, development of the capacity for innovative assessment***,*** 360º assessment***,*** Definition/clarification

In regards to Teacher education, according the answers to the question ***What are the feature of successful educational policy and governance nationally and internationally?*** *the majority of respondents consider that the particularities of school policy are related to intelligent educational community,* professional ethics, integrated policies, distinct financing: institutions, people (teachers), research, the mental ecology of the education community, learning communities

Teachers (***How can teacher education contribute to innovation?)*** can contribute to innovation by means of educational master programmes – professional development of teaching careers (MA, Ph.D Europe in T.E.) and education for teaching – integrated learning (inter-, transdisciplinarity), and in regards to the features of a successful national and international system.

What are the features of a successful teacher education system nationally and internationally? respondents consider to be important the professional development - professional standards centred on the quality of teaching, teacher prestige, support services for professional and personal development, models, vision and coherent and open and continuous practices for initial education based on a vision and flexible strategies, the practices of initial and continuous education, the flexibilization of the education curriculum, the focus on mentoring (Apprenticeship) (online mentoring), assessment of the teacher by criteria that reflect the quality of teaching, the importance of assisting teachers with programmes for continuous vocational education and with the implementation of innovation/changes, professional learning and collaboration communities

The long-term effects of teacher education (***what are the medium – term challenges in Romanian teacher education?*** are related to professional development, social status, a focus on results (at the level of the person being taught)Coherence: teacher education, curriculum, management, flexible international standards, diverse routes for education (in accordance with national standards)recognition of skills,international mobility,

Long-term priorities for change in education and professional development ***(What are the medium – term priorities for change in Romanian initial and in-service teacher education and professional development)*** are the motivation for a teaching career - curriculum

- Integrating ed. theory and practice in the T. E. programs
- Instrumental bridges between initial and in-service learning
- Transition to school and insertion programs
- What capabilities are a priority for the beginning/ experienced teachers? (locally, nationally, internationally)
- Promoting communities of learning
- Mentoring and personal development
- Collentive capabilities
- Interdisciplinary approaches to learning content and curriculum standards
- A focus on instrumentalizing curriculum development capabilities

Educational policy and governance (***What are the on-going challenges in educational policy and governance in Romania?)*** *pursue* the compatibility of public educational policies, visibility and impact of research in Romania on educational policy and public debate, the need to establish assessment criteria for this impact and policy making, coherently formulated educational policies, impact evaluationsupporting and educating teachers, international openness

What are the medium – term priorities for change in Romanian educational policy and governance systems? Are related to research based decisions, real communication between, researcherbuilding a platform for researcher Building a platform for researchers. Connecting the ed. researchers and practice to wider (intl) communities, Building a platform for researchers, Connecting the ed. researchers and practice to wider (intl) communities, Human resources development (competency – based approach.

Educational policies and governance can contribute to teaching innovation capacity through policies / strategies / measures for rewarding performance and the excellence of staff that innovates and disseminates the information, financing teacher training for innovation, programmes for stimulating innovation in the rural environment.

The guests of Diaspora have been involved particularly in the organization of activities. It has been a pleasure to discuss with Alis Oancea, professor, Oxford University, Georgeta Ion, UNIVERSIDAD AUTONOMA DE BARCELONA, Dr. Catalina Lomos, Researcher LISER (Luxembourg Institute of Socio-Economic Research), Esch-sur-Alzette, Luxembourg, Dr. Magdalena Isac (Univ. of Groningen/ CRELL_EC), Drd. DakmaraGeorgescu (UNESCO Programme Specialist for Curriculum, Teachers and Higher Education), Dr.Alexandru Crișan (Senior Adviser, World Bank), Carmen Rusu (Univ. P.V. Montpellier), Dan Popescu (NARIC, UK).

Beside the debates and individual discussions, which were profoundly entertaining, amiable and thoughtful, some of the guests were asked to respond to a survey targeting the following aspects:

- **TELL US A BIT ABOUT YOURSELF – XXXXXXX – THE PERSON AND THE PROFESSIONAL**
- **WHAT'S YOUR AREA OF INTEREST REGARDING RESEARCH? PLEASE, TELL US ABOUT IT!**
- **WHAT ARE THE MAIN RESEARCH DIRECTIONS IN….?**
- **WHAT ARE THE MAIN REASONS OF YOUR PARTICIPATION IN THIS CONFERENCE?**

"I was invited by professor Carmen Cretu, my mentor and coordinator during my studies in Iasi. I was happy to receive the invitation, as I am very curious to meet people from the national and international educational environment and to feel the pulse of the Romanian education. Just like everybody else in Diaspora, I remained emotionally and professionally connected to Romania and I would love to be able to contribute somehow, by collaboration, in order to bring a positive change, especially in the educational environment" Catalina Lomos.

"First of all, to see my friends – I haven't seen some of them in 10-15 years – and also to learn and see, from the primary sources, what's really going on in the world: the official documents and works published are often a pale image, sometimes distorted, of reality, highlighting political priorities and cultural roots (even biases)". (Serban Iosifescu)

I owe my presence here, first to the professors in Iasi and second, to the organizers of "Diaspora and Friends", a truly professional event. The main reason is the interest in the progress of education, dialogue and projects, along with ambassadors of the international academic community.

WHATDOES EDUCATED ROMANIA MEANS TO YOU?

- *To me, an educated Romania means, first of all, equal chances for everybody, beginning with a series of values mentioned these days: trust, flexibility, transparency, sense of belonging, recognition, wellbeing. Romania for people and through people. The open dialogue among all participants in this process represents the only way of change, innovation and progress. (Carmen Rusu)*
- *I don't think it's time now for punctual changes, but for major directions, defined at a social and political level, achieving under the principles of stability and continuity. I think it's time for an "Educated Romania", for the entire Romania to be educated. The attention must be directed to the education of the entire society, be it formal or informal, punctual or global, civic or scientific. It's time for our national values, civic and social principles to be brought in the limelight, and for the initial and continuous training, again, formal or informal, to be accessible for everybody. (Catalina Lomos)*
- The open dialogue among all participants in this process represents the only way of bringing change, innovation and progress (Alis Oancea, Oxford Univ.)

IN YOUR OPINION WHAT ARE THE DIRECTIONS OF EDUCATIONAL RESEARCH REGARDING THE LABOUR MARKET INTEGRATION OF GRADUATES?

STATE FEW OF THE OPPORTUNITIES LEADING TO CHANGE IN EDUCATION

- *One common point – that we have ambassadors carrying Romania in their hearts, wherever they might go, inspiring and believing in a better future. (Victoria Cojocaru)*
- *The Government's failure to engage the teachers' mind and soul and to transform them in active partners in preparing the educational policies, represents one of the biggest weaknesses of reforms, having major consequences on the dynamics of relations experimented in the class and at institution's level. To me, an educated Romania means, first of all, equal chances for everybody, beginning with a series of values mentioned these days: trust, flexibility, transparency, sense of belonging, recognition, wellbeing. Romania for people and through people. The open dialogue among all participants in this process represents the only way of change, innovation and progress. (Carmen Rusu)*
- I shall mention just one of the multiple opportunities under debate; that these days, the participants in this event sent a common message: *we have ambassadors carrying Romania in their hearts, wherever they might go, inspiring and believing in a better future. Alis Oancea*

STATE FEW OF THE POSITIVE AND NEGATIVE ASPECTS, DESCRIBING THE ESTABLISHMENT OF PUBLIC POLICIES IN EDUCATION

- *Plus: openness to public, debate, as a result of an increase of the public opinion's interest for subjects related to education.*
- *Minus: lack of coherence and continuity (each change of a Minister comes with a change of tune…); lack of consistency (public policies are not based on evidence, on research and assessment results); lack of a professional assessment of the impact of most policies implemented and of the assessment of the added value (economic and social) of the respective policy (of the so-called return on investment and social return on investment).*
- State few of the globalization challenges and possible solutions from the educational perspective.

AS INTERNATIONAL EXPERTS, WE KINDLY ASK YOU TO EXPRESS YOUR OPINION RELATED TO THE POSSIBLE DIRECTIONS OF THE REFORM OF THE ROMANIAN EDUCATIONAL SYSTEM– CHALLENGES, PERSPECTIVES.

IS THERE A LAST QUESTION YOU WOULD LIKE TO ANSWER, IF ASKED?

If I may, I'd like to change roles and ask you one question, this time. I've seen that you wrote about the importance of developing the emotional intelligence in children, a subject of interest to me. Do you think that in the future we will have the possibility to give more importance to such competencies and in selecting teachers? How much does the emotion count in the class?

The rewarding and pleasant atmosphere, the high level of sociability of guests, open to our collaboration proposals, as partners, regarding important projects, publications, organization of conferences and congresses, was enjoyed by all participants, leaving a sense of belonging to a big family.

We remember the words of Catalina Lomos

As in all successful conferences, we all want to build networks, to build a network of specialists where we can get back later with questions and collaboration proposals, and to return to our work richer and more erudite, more prepared for new and old. Of course, for the diaspora the conference was more than a common one, it was close to our hearts, it was the moment when our work and experience seemed to play an important role, also relevant for the ones at home, for Romania will remain for all of us, diaspora or Romania, home…Thank you!

We remained in contact with all the participants and we are ready to give effect to thoughts and plans made together. We will meet again soon and we won't let the hope perish, irrespective of circumstances. We are education specialists, researchers and friends.

Recommendations for authors

The recommendations below are meant to clearify the expected quality of the journal and it's articles.
The authors can send the electronic version of articles at: resjournal@e-uvt.ro
The sent papers shall be submitted under a peer-review from the members of our Editorial Board and beyond. The scientific criteria used by them are bellow.

Editing criteria:

1. The accepted publishing languages is English
2. The words and quotes in foreign languages are written in Italics. The quotes in Romanian are writen normally. Every quote shall have a foot note.
3. Citations should be indicated in parentheses the author, year of publication, page, can be easily identified with a complete reference to the citation from the end of the article. For example, if references to an author who had two publications in the same year, 2010, will be written including one bibliography 2010b works, to be easily identified. Footnotes should be used only in exceptional cases, if necessary annotations by the author.
4. Every author shall insert his name below the title of the paper, upper right on the paper, with a foot note that shall stipulate: academical title, institution, city, country, e-mail.
5. Every text shall be preceded by an abstract; every abstract should be up to followed by the key-words section up to 5 key-words. The abstract and the key-words section should be up to 800 characters; the abstract and key-words shall be written both in Romanian and English.
6. Each abbreviation shall be explained only at first use.
7. The bibliographical references must include at least one author listed by ISI or quoted in ISI articles.
8. At least 30% of the references must include papers published in the last five years.

Technical criteria:

1. page - A4;
2. page setup: up – 2cm; down – 3 cm; left – 3 cm; right – 2 cm;
3. length of paper: 8-10 pages (max. 30 000 characters, including bibliography and abstract);
4. the abstract and key words shall be submitted in English (and Romanian, if possible);
5. page setup: justified, line spacing: 1,5;
6. title: aldine (bold), 14p;
7. text: Arial Narrow, 11;
8. first line indent: 1 cm;
9. bibliographical references, listed in alphabetical order, APA Style:

- book: Name, S. (publication date). Title. city: publishing house.
- article**:** Name, S. (publication date). Title. Name of Journal. page number.
- online article**:** Name, S. (publication date). Title. Name of Journal.(is it is the case). Retrieved from (web site address).
- Website**:** Name, S. (publication date).Title. name of the website. Retrieved from (web site address).

The references are not numbered

Scientific evaluation criteria for the journal of educational sciences articles

CRITERI A	1	2	3	0
A. Scientific merit of the paper				
A.1. The importance and the actuality of the discussed topic, as well as the relevance of the discussed question				
A.2. The level of information (e.g. actuality and relevance of the publications from the bibliography) and the quality of the description of the current progress of knowledge in the				
A.3 The argument and basis of the discussed problem are well clarified and defined (e.g. conceptual clarifications, separating the aspects which shall not be discussed); the				
B. Potential contributions to developing scientific				
B.1 The research question is adequately answered, raising conclusions related to the theoretical basis presented in the article and the shared new ideas.				
B. 2 The type and the authenticity level is achieved by the				
B.3 The set of conclusions represents a synthesis built on a personal interpretation of the prior exposed results, with references to further developments on the discussed				
C. Argumentative procedure				
C.1. The research design is correct, the hypothesis are relevant, the methods and empirical investigation instruments are transparent and the interpretation of data is				
C.2 The affirmations are sustained by credible data from research or current theoretical elaborations.				
D. Structure and presentation of the article				
D.1. A logic sequence/connection (the ideas are logically linked together, the transit from an idea to the other is easy to follow, the order in which the parts of the paper are				
D.2 The used language is coherent, grammatically correct, meeting the scientific standards of expression				
D.3 The imposed structure of the paper is respected: abstract of approximately 800 characters, relevant				

EVALUATOR'S CONCLUSIONS:

I recommend the publishing of the article

I recommend the publishing of the article after revise of the author

I do not recommend the publishing of the article

Final comments:

Note: the evaluation scale of meeting the criteria presents itself as follows: 1 – done; 2 – partially done (requires further revise or annexation); 3- not done, does not fulfill the criterion; 0 – not the case, does not apply.

[h] Please provide explanations regarding the reasons for rejecting the article or list (on a separate sheet) with the concrete revisionrequirements

Notes

[i] The evolution of the relevant indicators at European Union (EU) level is presented in different documents – such as Education and Training Monitor (2013, 2014 and 2015 editions) and Country Fact Sheet – Romania (2013).

[ii] See, for instance, UNICEF (2012), UNICEF (2014a), UNICEF (2014b), UNICEF (2015), Analiza sistemului de învățământ preuniversitar din România din perspectiva unor indicatori statistici. Politici educaționale bazate pe date (2015). See also, for the international perspective, McKinsey (2007), McKinsey (2009), OECD (2013), PISA (2013)

[iii] See PISA (2013), PISA (2014),TIMSS (2011), PIRLS (2011).

[iv] For instance, the percentage of "resilient students" (as defined by OECD) is, in Romania, les than 3%, meaning less than half of the average percentage for all PISA participating countries (PISA 2013). See also: McKinsey (2007), McKinsey (2009), OECD (2013), PISA (2014)

[v] See, for instance, ARACIP (2013), ARACIP (2015a), ARACIP (2015b).

[vi] See http://aracip.eu for these reports. The Yearly Internal Evaluation Report on Quality of Education must be conceived and made public by each school unit, according to the Romanian regulations regarding quality of education. Since 2013, the schools were strongly encouraged to make and publish the Report using a dedicated information system and computer application (See: https://calitate.aracip.eu), the first set of data being collected for the school year 2014-2014.

[vii] The teacher is the school internal factor with the highest influence on learning outcomes.