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THE DYNAMICS OF ROMANIAN STUDENTS' PERSONAL GOALS: INFLUENCES OF EDUCATIONAL LEVEL, PREVIOUS WORK EXPERIENCE AND GENDER

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ABSTRACT. The present exploratory study focuses on a cross-sectional analysis of personal goals dimensional assessments in a Romanian student sample, at three educational stages: 12th grade, first year in university and final year of university. Using the Personal Goals Investigation Procedure, we examined goals in three life domains: school, professional development and personal life. On the one hand we aimed at analyzing between-subjects differences in goal dimensional assessments due to educational level and previous work experiences. On the other hand we were interested in investigating possible gender differences in the assessment of personal goals. The results of the study bring forward valuable information on how students define their ecological intentional pursuits and can be integrated in applied intervention programs for this age-group.

Key-words: *personal goals, life domains, achievement orientation, work experience, gender.*

ZUSAMMENFASSUNG. Die vorliegende exploratorische Forschung befasst sich mit eine Querschnittanalyse der dimensionale Selbsteinschätzung persönliche Zielsetzungen und und hat als Untersuchungsgegenstand der rumänische Student, in drei Ausbildungsstufen: zwölfte Klasse-Gymnasium, erstens Jahr –Hochschule und letztes Jahr -Hochschule. Durch die persönliche Ziele Erforschung Prozedur, wir haben Ziele in drei Lebens Bereiche analysiert: Schule, berufliche Ausbildung und persönliches Leben. Einerseits, wir wollten alle möglichen Unterschiede der dimensionale Selbsteinschätzung der Ziele analysieren, die durch Ausbildungsniveau und vorheriges Arbeitserfahrung bestimmt sind. Andererseits, wir waren interessiert in eine Untersuchung der Geschlechtsunterschiede in der Selbsteinschätzung der persönliche Ziele. Die Ergebnisse des Studiums bringen wertvollen Hinweise voran, über wie Studenten ihren ökologische absichtliche Verfolgungen definieren. Diese Ergebnisse können in praktische Interventionsprogramme für diese Altersgruppe integriert werden.

Schlüsselworte: *Personliche Ziele, Lebens Bereiche, Leistungsmotivation, Arbeits Erfahrung, Geschlecht*

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Investigation of individual projections of the future can offer researchers and practitioners valuable glimpses into the manner in which people construct intentional pursuits, in terms of what they want, desire or strive to achieve. Psychological discourse has slowly integrated approaches of human intentional pursuits, following decades when terms like motivation, goals or intentions were rather rare occurrences in theory and research (Austin & Vancouver, 1996; Brandtstädter & Lerner, 1999). Acknowledgement of the control individuals exert over their own development has prompted the concept of *intentional self-regulation* (Brandtstädter & Rothermund, 2002), which focuses on how individuals shape their path for personal growth, through the goals they set and gradually implement for themselves. Hence, information on personal representations of the future help scientists and practitioners understand how people project their intentional development and guide them in constructing intervention programs. Such intervention programs are based on a beneficiary focused needs analysis and a contextual diagnosis of how goals contents and structures shape the perceived development, for different life domains.

A brief view on personal goals

The analysis of goal structures and processes in ecological settings represents a tempting endeavor in Psychology. The term personal goal, as an ecological indicator of individual intentions and representations of the future has entered contemporary Psychological discourse in different conceptualizations. Main operationalizations of personal goals include: personal strivings (Emmons (1986, 1989, 1996, 1998; Emmons & King 1989), personal projects (Little, 1983, 2007), personal concerns (Klinger, 1987; Klinger & Cox 2004) and life tasks (Cantor & Blanton, 1996; Cantor & Fleeson, 1994; Zirkel & Cantor, 1990). Capitalizing theoretical and methodological tenets of these conceptualizations, we derive several statements relevant for an analysis of personal goals.

Firstly, regarding idiosyncratic goal contents, personal goals encompass subjectively relevant contents, highly activated in the present and reflecting current concerns or pursuits of the individual. These contents can be tracked on domain-specific aspects or related to developmental task requirements (Negru, 2008). By accessing idiosyncratic goal contents of individuals, researchers can tap into: (a) personal conceptualizations of orientations for the *future*; (b) themes that give structure to the lives of individuals in the *present*; (c) *specificity levels* in goal verbal content formulation. Each personal goal can be specified through a number of goal dimensions, which reflect goal structures and are usually self-assessed. By asking participants to appraise their goals on multiple dimensions, research studies: (a) define each goal on *complex coordinates*, which can be compared within and between individuals; (b) detect *discrepancies* or *similarities* in goal dimensional assessment, at individual but also at group level.

Secondly, regarding goal dynamics, in a multiple goal paradigm with individuals holding more than one goal at a time, the generation of personal goals

and their subsequent assessment on variable dimensions offers a more elaborate approach on ecological intentional structures. Through self-assessment of goal dimensions for different life domains, we can tap into differential representations of intentionality.

Thirdly, for an approach on personal goals and indicators of individual functioning levels, analysis of personal goals can offer an initial diagnostic for individual ecological goal structures. Further *normative assessments* can link personal goals (contents and dimensional assessments) with indicators of individual functioning, like well-being, global self-regulation strategies, depression indicators, procrastination and so on. From this perspective, the value of personal goal generation and self-appraisal is immense, as they can link specific idiosyncratic intentional contents with more general human processes.

Educational level and previous work experiences influence on goal dimensional assessments

The three educational levels we selected for the present exploratory study reflect critical periods in educational development in the Romanian school system, marking the end (last year in high-school, last year in university) and respectively the beginning (first year in university) of an educational cycle. We chose to investigate personal goals of students in these educational reference points, because we believe that they reflect critical periods in personal development, from a normative perspective. This means that critical periods normatively require individuals to take more active decisions regarding their future, and project their development on coordinates referring to school, professional development and personal life.

Previous studies mapping personal goal structures and goal dimensions have pointed out the importance of contextual affordances and limitations in shaping goal pursuits. In a 10 year longitudinal study on personal goals of emerging adults, Salmela-Aro, Aunola and Nurmi (2007) found that changes in goal contents reflected changes in developmental tasks, role transitions and life situations. A shift from education related goals to work, family and health goals was clearly detected, with exit from an educational system and entrance in the work-field indicating a high decrease in school related goals. As personal goals are considered important for the manner in which individuals represent their future development and select paths of action (Cantor, Norem, Niedenthal, Langston, & Brower, 1987; Nurmi, 1989, 1991), comparisons of individuals at critical points of educational development can reveal useful information on developmental trajectories. In regard to this aspect, Nurmi, Salmela-Aro, and Koivisto (2002) revealed that young adults who gave high importance to work-relevant goals were more likely to find work according to their educational preparation after university graduation and were less likely to be unemployed.

As inclusion in an educational system offers a stable term of comparison, with all students at one educational level with similar curricular requirements facing the same type of normative demands, comparisons among goal structures of students at the

three educational critical points can bring forward new and more specific information on personal goals. In the Romanian educational system normative demands at each of the three educational points refer to:

- a) Last year in high-school – the Baccalaureate exam, the first complex examination high-school students face, with four subject matters from all years of high-school study included in a series of oral and written examinations, during a period of two weeks; the results of the Baccalaureate exam are an important criterion for admittance to university in Romania;
- b) First year in university – the first exam session, encompassing different types of oral and written exams (depending on the specific faculty) which assess the knowledge students acquired during the entire semester; it is a new type of examination for students, because it requires more self-regulated learning during the semester and the amount, complexity and novelty of information required for these exams are a significantly higher compared to previous school learning experiences;
- c) Last year in university – the graduation exam, which is a written and/or oral examination of knowledge acquired during the university; in most faculties students present a graduation project, which is a theoretical or applied written paper on a subject matter students find of interest – this paper is a criterion for the level of domain-specific knowledge comprehension and applicability.

Studies on educational transitions have shown that previous work experience is important factors in how students represent and assess their goals, because as individuals gain more educational experience, relevant work experience aids them achieve an age-adequate level of career adaptability (Savickas, 2005). This is an important assumption for emerging adults, because diversification of life domains through direct work experiences is presumed to shape representations of goals and goal dimensions. Hence, we were also interested if there are differences among students in the three educational levels regarding appraised goal novelty and difficulty, because of previous work experience. We asked students to list the number of months they worked and we counted as work experience not only full-time or part-time employment, but also project based work experience. As to our knowledge there are no previous studies on Romanian students using a mixed approach of personal goals, we hypothesized that there is a difference in the perceived difficulty and novelty of personal goals in the three life domains due to educational level and previous work experience, but we presented it as a bidirectional hypothesis. Developmental approaches do consider that as the individual advances in educational structures and is involved in more work-relevant experiences, changes appear in the manner in which he represents personal pursuits, with involvement in more complex life situations influencing how he assesses and interprets them (Lerner, 2005; Savickas, 1997; Super, Savickas, & Super, 1996).

Self-others comparison focus or ability/knowledge development focus – differences related to previous work experience

Self-other comparison is a key element for a performance goal orientation, while focus on ability/knowledge development is a central component of a mastery orientation. In introducing these elements of self-assessment for each representative personal goal, we aimed at tapping into how students perceive their goals on each dimension, from a goal-driven perspective. As most research studies use standard sets of goal orientations or types of goals, our approach was different, in that it focused on personally salient goal structures, verbally formulated by the individual. In this study we were interested in analyzing whether previous work experience has an effect on how students view their school and professional development goals, in terms of focus on self-others comparisons and ability/knowledge development, respectively. We chose to dwell only upon these two goals, as they are more achievement oriented than the personal life goals.

Developmental studies investigating achievement orientations of elementary school students before and after entering junior high-school, have uncovered that as students advance in the educational system, their achievement goals change from a mastery focus to a performance focus (Koller, 2000). As research on achievement orientations of personal goal in older students is rather scarce, for our study we hypothesized that previous work experience influences how students perceive their school and professional development goals, in terms of performance versus mastery focus.

Gender differences in achievement relevant dimensions of personal goals

Though Pintrich and Schunk (2002) note the paucity of gender-related characteristics in research on achievement motivation, some studies did approach this topic, with mixed findings. Some researchers have uncovered gender differences related to academic goals, indicating an increased focus on competitiveness in boys compared to girls; on the other hand, girls seem to set higher level goals, with a dominant mastery orientation (Bouffard, Boisvert, Vezeau, & Larouche, 1995; Elliot & Church, 1997; Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997; Meece & Holt, 1993; Nolen, 1988; Pajares et al., 2000; Spence & Helmreich, 1983). Other studies did not reveal significant gender differences in self-set goals (Barron & Harackiewicz, 2001; Fukada, Fukada, & Hicks, 1993; Gernigon & Le Bars, 2000; Pajares, Britner, & Valiante, 2000). In reviewing both lines of research, Hyde and Durik (2005) summarized that task domain and life domain must be more carefully addressed, in order to track gender differences in the conceptualization of goal representations.

Relying on these findings, we wanted to analyze in our study possible gender differences in the self-assessment of achievement relevant personal goal dimensions: self-others comparison focus and ability/knowledge development focus. Also, as previous research has often introduced goal involvement as a dimension relevant for achievement motivation, we wanted to investigate whether ideographically generated goal contents are attributed differential involvement by girls versus boys. For each of the

life-domain goals: school, professional development and personal life, we analyzed possible gender differences for the above mentioned goal dimensions. Information on gender differences for idiographic personal goals can open new and complex lines of research, as self-assessments made on the selected dimensions stem from individual goals, not from nomothetic contents identical for all participants, but perhaps non-significant for some of them.

Objectives of the study

The first objective of the study was the investigation of educational level and previous work experiences differences in goal dimensional assessments. In this objective we integrated two bidirectional hypotheses. Firstly, we were interested in investigating whether the perceived difficulty and respectively novelty of the professional development goal and school goal is influenced by students' educational level and their previous work experience. Secondly, we wanted to see whether students' previous work experience influences self-others comparisons and knowledge/ability development focus for the school and professional development goal.

The second objective of the research was the analysis of gender differences in goal dimensional assessments, and it also integrated two bidirectional hypotheses. Firstly, we wanted to investigate whether there are gender differences in the procedural involvement and ability/knowledge development focus for the school goal, professional development goal and personal life goal. Secondly, we examined whether there are gender differences in self-other comparison focus in the school goal, professional development goal and personal life goal.

Participants

A number of 360 participants ($N = 360$) were recruited from six educational institutions, three high-schools and three universities, from Cluj-Napoca and Arad, Romania. Participants' socio-demographic characteristics are depicted in Table 1. All participants entered the study on a voluntary basis. At the beginning of the procedure they were informed on the confidentiality of their responses and the mean length of completing the whole procedure.

Table 1.

Socio-demographic sample characteristics

	12 th Grade	1 st Year university	Final year in university
<i>n</i>	106	119	135
% of Total N	29.4 %	33.1 %	37.5 %
Age (in years)			
<i>M</i>	17.98	19.09	22.72
<i>SD</i>	.41	.50	1.50
Gender			
Male	57 (15.8 %)	41 (11.4 %)	98 (27.2 %)
Female	49 (13.6 %)	78 (21.7 %)	37 (10.3 %)

Instruments/measures

Personal Goals Investigation Procedure (PGIP). For the present study we used the PGIP, an instrument we previously developed (Negru, 2009), capitalizing on existing personal goal methodology, in order to facilitate the generation and appraisal of individually relevant goals (Elliot & Friedman, 2007; Emmons, 1986, 1989, 1996, 1998; Emmons & King 1989; Little, 1983, 2007; Klinger, 1987; Klinger & Cox, 2004). Figure 1 succinctly presents the contents and processes involved in the completion of the PGIP.

Assessment of each goal dimension was conducted on a six-point Lickert scale from 1 to 6, with the minimum of 1 and maximum of 6 marked by a brief statement regarding the meaning of that extreme.

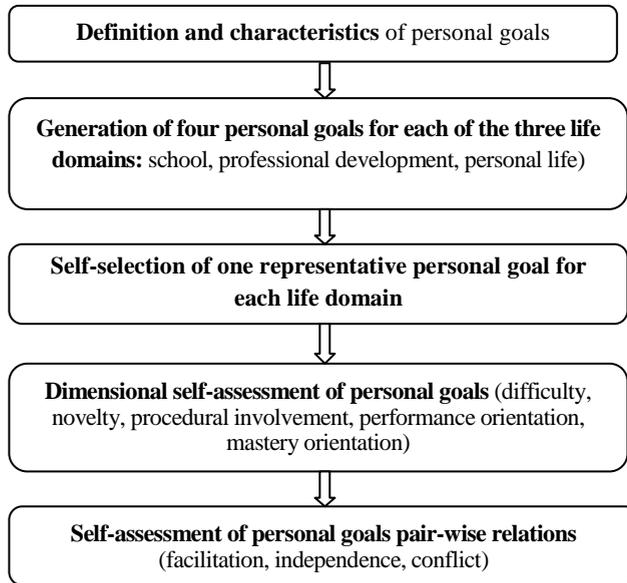


Figure 1. Content and process description of the PGIP

Design and procedure

The instrument was filled in by participants during one group session of approximately 45-50 minutes, which took place in their schools, before or after classes. Participants were first informed regarding the general purpose of the research and were assured of the confidentiality of their responses. We gave technical details on the manner in the instrument is organized before they started it filling in.

Results

We analyzed the data using SPSS 17 for Windows. An alpha level of .05 was used for all statistical tests, if otherwise not specified. For effect size we computed partial eta squared values (η^2).

In order to assess previous work-relevant experience, we created a new variable in the SPSS data file, and coded with 0 no previous work experience, with 1 work experience on a full-time or part-time basis for less than a total of 12 months, and with 2 work experience on a full-time or part-time basis for more than a total of 12 months. Coding was conducted based on the demographic data participants filled in at the beginning of the procedure.

Educational level and previous work experiences differences in goal dimensional assessments

In analyzing the impact of students' educational level and previous work experience on the appraisal of perceived difficulty and novelty of the professional development goal, we computed a Factorial ANOVA, with professional goal difficulty and respectively novelty and dependent variable and educational level and previous work experience as independent variables.

We found a significant interaction effect for the assessed level of the professional goal's difficulty between students' educational level and their previous work experience, $F(4, 351) = 2.29, p = .05, \eta^2 = .025$. Figure 2 graphically presents this interaction effect. As can be depicted in the interaction graph, students who have more than one year work experience present a different pattern in the difficulty of their self-selected professional development goal, compared to their counterparts with no or reduced work experience. In the last year of high-school and last year of university there is a strong tendency of students with increased work experience to appraise their professional development goal to a higher level of difficulty than how their colleagues with no or reduced work experience assess their goal in that category. Interestingly enough, in the first year in university, students with increased work experience view their professional development goal as having a more reduced level of difficulty than their colleagues with no or reduced work experience. These differences can arise from the manner in which professional development is perceived as being a salient life domain in each educational moment. Hence, it seems that students appraise the difficulty of their most relevant professional development goal differentially at each educational level, depending on their previous work experience. For the difficulty of the school goal, we did not find a significant interaction effect between students' educational level and their previous work experience, $F(4, 351) = 1.67, ns, \eta^2 = .019$.

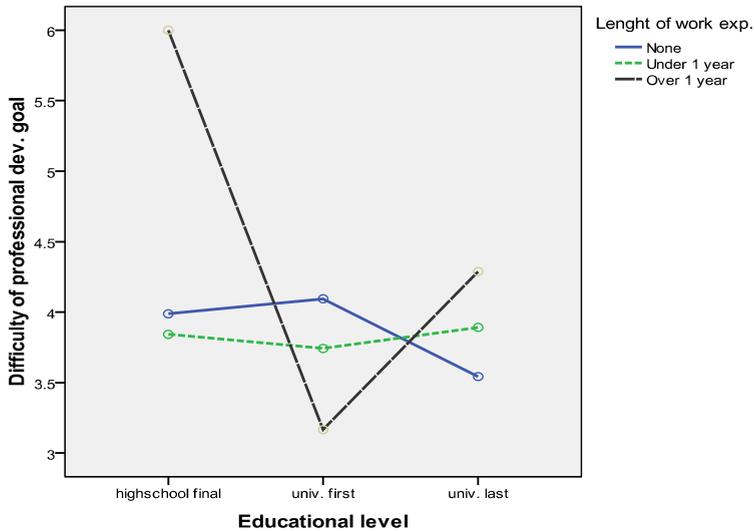


Figure 2. Interaction effect of educational level and length of previous work experience on assessed difficulty of professional development goal

For the difficulty of the professional development goal we found a marginally significant main effect of educational level, $F(2, 351) = 2.76, p = .06, \eta^2 = .016$, though HochbergGT2 post-hoc tests did not reveal any significant mean differences between the three educational levels (high-school final, university first and university last). For the level of novelty in the professional development goal, the main effect of educational level was not significant, $F(2, 351) = .61, ns, \eta^2 = .003$. For the difficulty of the school goal no significant main effects were found, neither for educational level, $F(2, 351) = .19, ns, \eta^2 = .001$, nor for previous work experience, $F(2, 351) = 1.41, ns, \eta^2 = .008$. For school goal novelty main effects of educational level and previous work experience were also not significant.

The main effect of work experience length on perceived difficulty of the professional development goal was not significant, $F(2, 351) = 1.85, ns, \eta^2 = .010$; for goal novelty we also found a non-significant main effect of previous work experience, $F(2, 351) = 1.90, ns, \eta^2 = .011$.

Self-others comparison focus or ability/knowledge development focus – differences related to previous work experience

In order to investigate the impact of previous work experience on self-others comparisons in the pursuit of the professional development goals, we computed a Univariate ANOVA, with appraisals of self-others comparisons and ability/knowledge development respectively as dependent variable (in the professional goal and then the school goal) and previous work experience as independent variable.

For reported self-others comparisons in the professional development goal we found a significant effect of the length of previous work experience, $F(2,357) = 3.76, p < .05, \eta^2 = .021$. HochbergGT2 post-hoc test showed that students who have been employed for more than one year reported significantly more self-others comparison in the pursuit of their representative professional development goal ($M = 3.60$) than students with reduced work experience ($M = 2.97, p < .05$). Reported self-others comparisons in the school goal were not significantly influenced by students' previous work experience, $F(2,357) = .31, ns, \eta^2 = .002$.

A differential focus on ability/knowledge development due to previous work experience did not yield significant effect, neither for the professional development goal, $F(2,357) = 1.01, ns, \eta^2 = .006$, nor for the school goal, $F(2,357) = 2.01, ns, \eta^2 = .011$.

Gender differences in goal dimensional assessments

For *reported involvement* in goal pursuit we found a significant effect of gender for the professional development goal, $t(358) = -2.59, p = .01$, with female students ($M = 5.04$) reporting increased involvement compared to male students ($M = 4.71$). For the school goal we found a marginally significant effect of gender on the reported involvement, $t(358) = 1.70, p = .08$, with girls ($M = 5.05$) declaring more involvement than boys ($M = 4.85$). No significant gender differences were found for involvement in the personal life goal, $t(358) = -.18, ns$.

For the *focus on ability and knowledge development* we found significant gender differences for the representative professional development goal, $t(358) = -2.80, p = .005$. Girls reported significantly higher focus on ability and knowledge development in the pursuit of their professional goal ($M = 5.01$) compared to boys ($M = 4.76$). We found no significant gender differences regarding focus on ability and knowledge development for the school goal, $t(358) = 1.46, ns$ or the personal life goal, $t(358) = -.06, ns$.

For the *focus on self-others comparisons* in goal pursuit we did not find significant gender differences for the school goal, $t(358) = -1.01, ns$ the professional development goal, $t(358) = -.46, ns$ or the personal life goal, $t(358) = -.13, ns$. This indicates that the level of perceived comparison with others in the representation of representative personal goals in the three life domains is not influenced by gender.

Discussion

Educational level and previous work experiences differences in goal dimensional assessment

Data analyses pointed out that students appraise the difficulty of their most relevant *professional development goal* differentially at each educational level, depending on their previous work experience. We also found a marginally significant main effect of educational level on the difficulty of the professional

development goal. For the school goal we did not find any main effects or interaction effects of educational level and previous work experience, neither for goal difficulty, nor for goal novelty. These results indicate that self-appraisals of the professional development goal are more sensitive to changes in educational level and work experience, compared to school goals. Our initial hypothesis was only partially confirmed, on the coordinates detailed above.

Normative requirements become more salient when students approach the end or the beginning of an educational cycle, with new contextual demands urging individuals to reconsider current goals and prepare engagement in others. The indicators of goal novelty and difficulty reflected how students perceive their representative and important pursuits, with the professional development goal apparently being more clearly influenced by educational level and previous work experience. This is an interesting finding, because we initially believed that school goals also reflect new and difficult challenges, in terms of complex forms of examination students at the three educational moments will face in the near future. It seems though, that in the school domain no significant differences appear, which can be explained by educational level or previous work experience. Perhaps the school life-domain is more saturated in cognitive and behavioral routines that lead students to convey lower levels of goal novelty and difficulty, in spite of contextual demands.

As for the observed changes in professional goal difficulty explained by a joint effect of educational level and previous work experience, the interaction effect depicted in Figure 2 indicates that last year in high-school students with more than a year work experience perceive the difficulty of their chosen professional goal as much higher than those with reduced, or no work experience, which have very similar mean difficulty levels. In first-year students, increased work experience is associated with lower appraised difficulty levels of the professional goal, compared to those with reduced or no work experience. In last-year in university students, those with increased work experience assess their professional development goals as more difficult, compared to those with reduced or no work experience.

These differential patterns of interaction sustain that increased work experience influences appraised difficulty of the professional goal, but the direction of the influence seems to shift with educational level. The fact that first-year university students with increased work experience appraised their professional goal as less difficult than their counterparts with reduced or no work experience could reflect that they do not focus on the professional development dimension at this moment, as entrance in a new educational cycle centers them on school-related pursuits.

Self-others comparison focus on ability/knowledge development focus – differences related to previous work experience

For reported self-others comparisons in the professional development goal we found a significant effect of the length of previous work experience, with post-

hoc tests showing that students who have been employed for more than one year reported significantly more self-others comparison in the pursuit of their representative professional development goal ($M = 3.60$) than students with reduced work experience ($M = 2.97$, $p < .05$). Reported self-others comparisons in the school goal were not significantly influenced by students' previous work experience. Focus on ability/knowledge development due to previous work experience did not yield a significant effect, neither for the professional development goal, nor for the school goal.

It seems that an increasing work experience modulates in manner in which students perceive their representative professional development goal, while this change does not appear in the school goal. This could indicate that self-others comparisons are an important dimension in the representation of the relevant professional goal, but for our sample at least previous work experience does not significantly influence the representative school goal for this dimension. This supports the domain and task specificity of achievement orientations (Elliot, 2005) and brings forward the relevance of previous work experience in differentially shaping such orientations.

Gender differences in goal dimensional assessments

Analyses of gender differences in goal involvement, self-other comparison focus and ability/knowledge development focus showed that for the *professional development goal* female students reported increased *involvement* compared to male students, with the same pattern emerging in the *school goal*, where girls declared more involvement than boys. No significant gender differences were found for involvement in the personal life goal. Girls also declared more *ability/knowledge development* focus for the professional development goal, while for focus on self-others comparisons we found no gender differences in any of the three goals.

As previously mentioned, research on gender differences in achievement motivation is rather scarce and contradictory. Our findings regarding the increased levels of focus on ability/knowledge development reported by girls in the school and the professional development goal bring forward an interesting issue. As students assessed personally relevant goal contents, this mastery relevant focus indicates an actual tendency of girls to concentrate on what they learn from pursuing a goal or is it an indicator of self-presentation effects? Can we advance a hypothesis of positive illusions constructed on coordinates of a mastery orientation? Further research on gender differences regarding these dimensions will have to focus on the translation of goals into action and assessment of goal pursuits during action implementation, in order to verify whether our findings reflect a behavioral tendency or just gender specific positive illusions which help the framing of a pursuit in terms of self-development.

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HOW CAN THE MODERATOR TEACHER CARRY OUT HIS/HER DIDACTIC ACTIVITY

ROMAN IOANA¹

ABSTRACT. The professor-student relations have passed –with lapse of time– through several stages; thus, numbers of years before, a good university professor was thought to be the one who managed to keep the students quiet in the lecture room while they were diligently jotting down notes thus obeying what they were transmitted, *via* dictation. The relaxed atmosphere in the lecture- or seminar room, as well as the students' personality and the now barrier-less teacher's desk and student's desk is proof of the university-professor's role as moderator. Thus, the student will turn from a mere listener into a shape-giver of himself. However, in order to accomplish such a *desideratum* the guidance of a teaching cadre is necessary –i.e., the moderating professor's– to guide the student towards understanding what is essential or important in a field; how to measure information or, find out the practical value of the material studied. The study attribute to the present piece of work is based on the necessity of bringing the Romanian university teaching system to the standard levels extant in the European Union so that the lecturer does not have to deliver just another lecture but to actively imply the student in the deduction of knowledge.

Key words: *involvement; student; motivation; didactical activity; polemics; constructive criticism.*

ZUSAMMENFASSUNG. Wie kann der Moderator Lehrer acrry seine/ ihre didaktischen Tätigkeit. Die Lehrer-Schüler Beziehungen gingen im laufe der Zeit in verschiedenen Phasen vorbei, so dass vor jahren ein guter Universitätsprofessor derjenige war der in der lage völlige Stille in der Klasse während die Studenten Notitzen nach Diktat schrieben behalten konnte. Heute beweist die entspannte Atmosphäre in Klassen-oder Seminarraum, die Hearushebung der Persönlichkeit des Studenten und die Abschaffung der imaginären Barriere zwischen Katheder und Bank die wichtige Rolle als Moderator des Universitätsprofessors. So verwandelt sich der Student aus einem einfachen Zuhörer in seinem eigenen Weiterbilder. Dafür braucht er die Leitung eines Lehrers-der Professor als Moderator-der ihm zeigt was wichtig oder essentiell in einem Bereich ist, wie er die Information bearbeiten soll oder welche die Anwendbarkeit der studierten Begriffe wäre. Die Studie betreffend diese Arbeit stützt sich auf die Notwendigkeit der Anpassung der Hochschulbildung in Rumänien nach den Normen der Europäischen Union, so dass während des Unterrichts sich der Professor nicht nur auf eine einfache Vorlesung bezieht, sondern den Studenten aktiv im Schluss der Kenntnisse ziehen beteiligt.

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Schlüsselwörter: Beteiligung, Student, Motivation, Lehrtätigkeit, Polemik, konstruktive Kritik

Introduction

Like any thing submitted to change, the ways to carry out didactic activities have undergone –in time— several alterations. Some time back, the professor –on his first lecture- stated the thematic- and bibliography of the subject to be dealt with, whereas nowadays –with the horizons enlarged- the Internet will aid the student with the syllabus to be run through (Doepner, T., M. Scott, S. Mason, 1997). Thus, he will be able to acquire in time documentary evidence on the themes to be tackled thus succeeding in directly bringing his contribution to the respective lecture. Through such steps one does not have to see the professor deprived of his primordial role but rather the possibility of his transformation- from the classical professor- into the moderating professor, that is. The implementation of such a process needs that the two dialogue partners –the professor and the student- radically alter the mentality towards the instructional act.

The moderating professor is to us a person capable of leading, directing a debate (with the lecture), or a round table (with seminars), and draw conclusions (Bonwell, C.C., J.A. Eison, 1991). Although governed by instruction bears distinctive features. When rules and focusing on a theme, the professor-student interaction with the professor is playing the part of moderator, there takes place a spontaneous alteration in the part of broadcaster and receiver cast to the two partners. The system of taking the floor during the specialty classes does not follow a pre-established hierarchy.

The group of students –university aggregate-, generally, makes up an instrumentality for communication between the professor and the student, an open communication bereft of restrictions and formalism; such a position heightens the confidence in the virtues of the group and, implicitly productiveness. Barring communication by means of cold-, red- tape relations from the part of certain professors only cause the efficiency of communication and active assimilation of information go down (Ewell, P. T., 1997). On normal functioning, based on the principle of the 360 degrees feed-back, the process of communication will allow for the carrying out of the task, value per each component of the group and act as homogenizing factor.

Material and method

The study pertaining to the present report is based upon the necessity of bringing the system of university instruction extant in Romania to the level of EU standards. Thus, during classes the instructor be not anymore forced to deliver just

another lecture but actively imply the student in knowledge synthesis. In such way, the student will turn from a mere listener into the shape-giver of his own being. However, that such an aim be reached the guidance of a teaching cadre is necessary, i.e., that of the moderating professor, meant to guide the student discern what is essential or important in the respective domain, as well as how to dole out information, or find the applicability of the knowledge acquired.

A questionnaire of 30 items (of these four of open character) has been conceived and distributed to a number of fifty –four sophomore students, as well as to twenty-three members on the Staff of the University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca (seven professors, twelve senior lecturers and four lecturers.)

The questionnaire was meant to reach out to the following objectives: the extent of both students'- and professors' readiness to co-operate; to be involved in the didactic process; to turn the class into open communication (no restrictions, no formalism); to obey the rules pre-established to carry out an efficient and constructive dialogue. Also, there have been underlined the traits to be proved by a would-be successful moderating professor. Thus, there has been reached the phase when advantageous- or disadvantageous features are listed, supposed to be possessed by this; as well as the importance of such a part in the respective lecture- or seminar classes.

Results and discussions

The assignment of the moderating professor is an important factor not to be sneezed at in following the metacommunicative sequences within the didactic process. Formulating the questions is essential for the structure of the lecture/seminar, and it is efficient in testing the students' opinion; it is also relevant for the teacher's personality.

The professor as moderator is that of presenting the theme, or case, by allotting the time and announcing the right to rebuttal of the participants in accordance with their free will, by challenging some or others, keeping to the initial theme and presenting his/her own opinion, even correcting one or another of the students. We are now amidst an universe of constructive criticism and of polemics. Within such a tackling, the professor is the one who has the task of instigator, following that the students pass through the process of initiation and the professor moderate the dialogue.

When the professor –*via* his conduct- makes himself “accepted” by students, the conditions that the entire group become receptive and open to co-operation are created.

After announcing the theme, substitute theme, and presentation of the objectives, the professor -as moderator- will stir up polemics, establish and sustain interactive relations by granting his students the right to have a word. Besides the role of moderator (institutionally speaking), the professor has to play the part of

guide, of therapist, of referee and interlocutor thus revealing –deliberately or not– certain facets of his personality (preferences, antipathies, sympathies, a.s.o.)

The sample questioned has perceived some ways –direct or indirect– the professor as moderator can challenge his students to respond:

- have you read the bibliography concerning the present lecture? if so, then we can talk.

- who wants to respond? I mean, please do, as I don't intend to interfere each and every time.

- let's try to carry out a discussion by not being I who's asking questions all the time and anyone, who wishes, has the liberty of stepping in.

- I'm going to reveal my point in time; however, I'm waiting for your opinions, too.

- What's your opinion?

- What arguments are you leaning against?

- Let's see the conclusions you've reached to...

- Before that, I'd like you to refer to...

By means of such strings of words (*who wants to...?*) the professor has in mind granting free hand to his students. By applying to interruptions (of positive value, that is) he will monitor interaction by the imposition of a certain order in its development.

The metacommunicative formulation *let's see* is stressing the professor's (moderator's) leader portrayal, attempting to pin down the targets of the discourse. The fake imperative *let's see* is the appeal addressed to the students is meant to involve them to converse and shows up in the communicational process which is attempting to introduce the debate theme.

Due to their stereotypical structure the metacommunicative statements directly refer to what has already been said and, to a lesser extent, to the manner they are being conveyed and receipted (Dunn, R. at all, 1995).

Metacommunicative statements allow for student-to-student, as well as student-to-professor exchange of words and, also explain conditions which lend comprehensible shape to what is being said, by including the interlocutor in his own discourse or, check whether he is on the verge of understanding; or, is granting contact-or even an understanding with him; he does so as to participate and, is on the verge of understanding his interventions (Borillo, A., 1985).

There has been noticed that in seminar classes the advent of some contradictory discussions consisting in two or more points of view confronting one another, regarding some problems in debate in order to throw light on various aspects of the theme being treated (trying to partially expose the truth), so that those witnessing the confrontations be able to construe their own truth. The teacher will now be similar to an orchestra conductor who's letting free the spirit of every one to be seen and the sound reach the ears of each, in full harmony.

Named *verbiage* in Searle's theory of language acts, metacommunicative statements introduced by *that is*, accompany as inserts, the teacher's vacillations

regarding the manner he is conceiving his role of moderator and stressing the corrections he spontaneously administers. *That is* followed by the interactional signal *please* functioning as an appeal addressing his students to involve in the conversational act, and the conjunctive mood acquires imperative value *to respond* which expresses a teasing , however already attenuated by the initial will to accomplish the request.

Another rule to be heeded by the moderating professor is that of receiving differing answers to a single question, if possible, from the majority of the students. Thus, the communication activity receives the discursive label of *discussion* which presupposes the creation of premises allowing for the liberty of expression and are aiming at an exchange of opinions efficient through renunciation, in the given situation, to the *Q & A* pair which becomes *Q & A* diverse and personal.

Metacommunicative statements organize the flux of the conversation by granting the adequation to the partner of the communicative behavior and counting on the successive reciprocal understanding (Hyland, K., 1998). The discursive labels, the metacommunicative statements, are not at all compulsory but the explanation they bring is felt as an efficient help in the controlled evolution of the discourse on one hand –under the aspect of elaboration-, and on the other, under the aspect of understanding.

The opinion poll with sophomore students at the University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, demonstrates that the teacher's attitude is making the whole difference between what is liked and what is not liked by the students. Thus, in order that the relation student-professor be based on reciprocal trust and sympathy, the students thought of drawing the mechanical portrait of the moderating professor.

In the students' view, should first of all be competent and a fine educator able to communicate efficiently with the them; to demand them to be activity-involved; be a trustworthy friend who knows how to get close to their way of thinking; to develop a friendly relationship and teach them“ things you bang into in life, not by all means trade knowledge.” Patience and understanding, tranquility, honesty, rectitude, seriousness, port during classes and, last but not least fun, are traits that the moderating professor should not lack.

The moderator's leader adroitness is what determines the fluency of dialogue; an instructor lacking experience will trigger a less productive dialogue while moderating either because he isn't successful in being listened, or –even if he will succeed in being listened-, he won't possess the intransigence needed in making decisions; thus, he not only loses his credibility but also the authority he may still have.

Verbal fluidity and firmness are also fundamental abilities a moderator professor should possess; otherwise, students will have a slack position to dialogue or, be overwhelmed by a strong personality short circuiting his self from social point of view (Roman Ioana, Șoimița Komives, 2008). The students' intellectual

strength should be highlighted in contentious speech and the ensuing dialogue should reveal the value of the argument and not solely the social interaction.

Excess of authority –on many occasions- does nothing else but alienate the student from that professor and, implicitly, from the respective syllabus. Perhaps it would be better if at least the professor remember that once he himself sat in the desk and had encountered difficulties. He should avoid the negative models highlighted by stiffness and lack of understanding as all these will negatively touch the students. Part of the interviewed students evoked with fear some of the syllabi (matter of factly, the didactic cadre as such) or even dreaming of exams that cannot be passed by them, in spite of the fact that in reality they have obtained good marks. So that's the way the didactic style is printing its finger marks upon the students' state of mind triggering stress with them. It is well known that within stress conditions efficiency goes down and the aim of university education is that to educate and instruct, to shape and develop plenary the human personality. Thus, it is a proven thing that the moderating professor will obtain much better results as to the same time unit, being perceived by the students as a real model, as an authority in the respective field, as well as a friend.

Similarly, one of the most important qualities that should be proved by a moderating professor is neutrality. All students should be equal in the rights considering the dialogue, and any sympathy of the moderator towards a certain interlocutor can irreversibly transform the dialogue into a confrontation of wills, instead of confrontation on the field of knowledge pertaining to the theme. In order that this principle be observed more strictly, it is important that the moderator professor refrains from frequently expressing his opinion; however, when he does it then his opinion should correspond with that of some of the students.

Objectiveness is another essential trait of the moderating professor; he will have to judge the ideas launched in accordance with their own value and avoid completely their being influenced by considerations linked to the personality of the student who had forwarded the ideas (Roman Ioana, 2008). He will prove his pedagogical tact so that those who, due to their opinions, style and intellectual vision diverge, will be branded as heretics by the rest of the group; those should enjoy the moderator's protection so that he does not compromise his neutrality. A professor should make himself respected due to his competence, as well as *via* his manner of communication with the students, so that we are all equal as beings and each one of us should be valued for what he/she represents as entity.

In what follows, there are introduced some opinions linked to the vision of the interviewed ones (both students and professors) on what a successful moderator professor is.

- Being a moderating professor you are presumed to relate to the students and not to you;
- It is necessary that you set out in advance the scope and objectives of the lecture and its connection with the general theme of the syllabus; see to whether there are possibilities of creating interdisciplinary connections;

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- The students will be induced to honor the moderator's personality as well as the opinions of his colleagues;
- He won't agree to interventions liable to go for attacks, either direct or indirect ones, at any of the members of the group discussing;
- He has to use a constant inflection and not ever raise the voice at the student; neither should he express his dissatisfaction or variance with the ideas issued save he is agreed by the majority;
- The teacher will never allow for approaching discussions of discriminatory character or/and inciting to hatred and violence;
- He has to address the interlocutors correctly. He is forbidden to mock at their names, to nickname or use epithets;
- The professor will render himself update with the subject in: concept; statistical data; best practices; things that might seem solutions to their problems, etc;
- He should refrain from poking fun at the participants in the dialogue as irony is ambiguous in nature and will trigger confusion within those engaged in it;
- He will conceive the purple thread of the discourse depending on the participants and what they have got to stress, so that the discussion run smoothly and logically;
- He will draw up a list of the contents of the course (i.e., what follows to be discussed) and spread it out in the class room with the students who have missed to inform themselves but have the list ready to help them in expressing opinions;
- It is he who opens the discussion (greeting; a short introduction to the theme, etc), announce the theme and a brief bibliography recommended for study;
- The teacher will carefully listen to every idea put forward by the students and construe the dialogue starting from what the audience has to say; he will also give the floor and also interfere when the discussion deviates from the subject proposed and bring it back on the track it should be so that it reaches the targets of the course;
- He should be objective without turning into the partisan of any of the ideas, i.e., be an adviser who critically explores all the faces of the problem;
- In expressing himself he will correctly utilize the professional language built upon the simplest and most conventional one ever possible; he should refrain from linguistic embellishments; also, from using argot;
- He will speak as little as possible and that only when the dialogue goes out of balance or when the discussion is in need of mental impulse. As to the rest, he should be a very discreet presence and not to forget that cutting short of a student's discourse is a mistake;
- He will gather ideas, impressions, and process the conveyed information;
- He will draw conclusions and put an end to discussions by expressing gratitude for the interest shown and for the participation (the course is not compulsory);

- He will promise follow-up and send the gathered information to all of the participating students.

Conclusions

There has been kept in sight the synthetisation of several advantages, or disadvantages respectively, of the teacher's approach to the role of moderator, in the didactic activity.

The advantages of approaching the role of the moderator by the teacher within lecture classes of seminars: developing the students' co-operation spirit; intensifying the communication with personal responsibility in carrying out the tasks assumed; stimulating the output of thinking; getting familiar with research and investigation; overcoming complexes of psychosocial nature, expressed in refraining oneself from participation to activities. Also, the teacher as moderator stimulates the interaction among students; generates sentiments of acceptance and sympathy; encourages compartments of enabling others' success; raises the level of self esteem; develops the confidence in one's own capacities; cultivates positive attitudes towards study and teaching staff.

Disadvantages: there is the risk of fragmentation in acquiring incomplete formative cognition of certain rudiments of slowing down the rhythm of the intellectual development of the students with poor results, who may profit from the industriousness and results of the other mates. The discussions carried out are huge time consumers and their moderation needs experience from the part of the teaching cadre. Similarly, the adequate didactic material necessary to carry out the activity in such manner is lacking, more often than not. Students need time in getting familiar with such a new type of study; it needs effort and repeated encouragement to convince them that something else is expected from them as Roumanian students are used to ready-made lectures and information services.

The part of the moderating teacher is, on one hand, that of making aware of the various aspects of scopes that can be reached through the study of profile syllabi (professional knowledge, social- and educational aspect, etc)and, on the other, to facilitate the harmonization of personal scopes with the general ones, of the appertaining group. The best means of making ends meet with these interests is that of organizing a discussion –as open-minded as possible- on all problems coming up with each syllabus, group of students, respectively. The moderating teacher is the one who organizes and conducts learning; enables and moderates the activity of study; helps students to understand and be able to explain things; makes the students responsible as to the best functioning of the group; creates for students certain social potentialities which favour interaction and co-operation in achieving learning; the teacher also accepts and stimulates the expression of diverging points of view within a problem; he is also a partner in study.

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UNDECIDED STUDENTS AND CAREER EXPLORATION COURSES

LINDA TAYLOR*

ABSTRACT. This study explored if there is a difference in students' career decision making confusion, commitment anxiety, and external anxiety (as measured by the Career Thoughts Inventory) after completing an eight week career exploration course, using a pre-post test format. The study also explored if there is a difference between regular admitted undecided students and underprepared undecided students. Data was analyzed using paired sample T-tests and one-way analysis of variance. The results indicate that this style of a career exploration course decreased undecided students' decision making confusion and commitment anxiety. It did not decrease their external conflict.

Keywords: career, vocational learning, career courses, decision making, external conflict, internal conflict.

Undecided Students and Career Exploration Courses

Transitioning from high school to higher education is an exciting and anxiety provoking time in one's life. The typical question an entering college freshman is asked is "what is your major?" This question often provokes many emotions when the student is undecided about what to major in. Research indicates that 30-50% of students entering college are undecided on their major. It must also be noted that 75% of students entering with a decided major change their mind after entering college (Kramer, Higley, & Olsen, 1994).

Entering undecided freshmen are different from freshmen entering higher education with declared majors in various personality characteristics and career exploration issues. Undecided students have been identified as having situation specific anxiety (Apple, Haak, & Weizke, 1970; Fuqua, Newman & Seaworth, 1988; Hartman & Fuqua, 1983), generalized decision making difficulties (Apple et al., 1970; Bergeron & Romano, 1994; Taylor & Betz, 1983), concerns with self identity (Peterson & McDonough, 1985), and lack of a clear sense of identity (Holland & Holland, 1977; Jones & Chenery, 1980). Undecided students tend to have less ego-identity development than decided students (Gordon & Kline, 1989). This is revealed through undecided students' issues with lack of identity and having an external locus of control (Hartman & Fuqua, 1983). Undecided students also exhibit a lack of self direction (Mair & Herman, 1974) and have more dependency issues (Peterson & McDonough, 1985). They tend to be more timid of experimenting and apprehensive, along with being conscientious and trusting.

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Common vocational exploration issues among undecided students are a desire to seek data on occupations and majors. They also tend to have multiple of interests and a humanitarian orientation (Apple et al., 1970). Undecided student were also found to have a significant difference in career self efficacy along with educational and vocational career indecision (Bergman & Romano, 1994; Taylor & Pompa, 1990).

To assist with these issues, undecided students indicated a desire for assistance with identifying life goals (Baird, 1969), selecting a major, selecting a career, and implementing their choice (Goodson, 1981; Walters & Saddlemire, 1979). Undecided students have also identified a desire for faculty information sessions about majors, talking with career counselors, and taking a career course as ways they would like to explore careers (Goodson, 1981). Students prefer their information via individual career counseling appointments, attending workshops, or reading pamphlets (McBride & Muffo, 1991). Generation X students have identified that they desire career services that are fast, include concrete information of immediate and practical use, and are directly relevant to their personal situation (Cannon, 1992). Undecided students reported self exploration, support, and education as the most helpful career counseling tools. They identified least liking counselor structured activities (Anderson & Niles, 2000). Undecided students also benefit from interventions that use effective goal setting strategies (Young & Valach, 2003; Wehmeyer, Lattimore, Jorgensen, Palmer, Thompson, & Schumaker, 2003).

Universities offer various services to assist undecided students with their career exploration. Services range from career counseling (individual and group), vocational inventories, and career exploration courses. Research indicates that career interventions are successful at increasing self efficacy for making career decision (Betz & Schifano, 2000; Betz, Harmon, & Borgen, 1996; Luzzo, Hasper, Albert, Bibby, & Martinelli, 1999). However, different career exploration methods have garnered various degrees of effectiveness. Least effective is the student trial and error method (Babcock & Kaufman, 1976). Individual counseling in conjunction with a vocational inventory (Strong Interest Inventory) was equally effective as individual counseling in conjunction with the DISCOVER computerized career exploration program (Barnes & Herr, 1998). Group career counseling has been found to be equal to or more effective than individual career counseling (Babcock & Kaufman, 1976; Fretz, 1981; Round & Tinsley, 1984; Spokane & Oliver, 1983). No significant difference was found between the effectiveness of career exploration courses and small group counseling. Both group counseling and career exploration courses are more effective than individual counseling (Davis & Horne, 1986). However, it must be noted that Whiston, Sexton, and Lasoff's (1998) research indicates that career courses were less effective than individual and group counseling. Successful career interventions are structured, supportive, intensive, and provide hands-on experiences (Flores, Scott, Wang, Yakushko, McCloskey, Spencer, 2003).

Individual career counseling has been found to decrease student undecidedness, increase career certainty, increase certainty of career and academic goals, along

with increasing the clarity of career identity of student values, interests, and abilities as related to the world of work and career planning (Barnes & Herr, 1998). However, there was no significant difference on the indices of career planning as measured by the Career Decision Scale, My Vocational Situation, and the Survey of Career Development (Barnes & Herr, 1998). This research correlates with Fretz (1981) in that combinations of inventories and/or computerized career exploration programs did not result in superior effect compared to administering only one. Career exploration interventions based on content domain (Fretz, 1981), interpersonal context and structure, assisted undecided students in decreasing their career uncertainty (Jurgens, 2000). However, it must be noted that there is a significant difference between the effectiveness of interventions based on if a student has an internal or external locus of control (Luzzo, Funk, & Strange, 1996).

The National Association of Colleges and Employers survey revealed that over 50% of universities and colleges offer career decision making courses to help undecided students with their career decision making. During a career exploration course many positive changes occur for the student. Students who participate in career exploration courses show greater career choice certainty, increased academic major certainty, increased maturity, and are more likely to use academic advising, career counseling, and personal counseling (Carver & Smart, 1985). Career exploration courses have been found to increase self knowledge and the understanding of the relationship between self knowledge and occupations. These courses also facilitate the students to engage in a greater number of career planning activities to become more informed. This enables the students to have an increased gain in expressed occupational choice and the students reported getting more assistance in making comprehensive appraisal (Babcock & Kaufman, 1976). Career courses based on a cognitive information processing model have been found to increase self-efficacy in college students (Reese & Miller, 2006). However, no significant difference has been found in an undecided students' self concept (Carver & Smart, 1985). Carver and Smart (1985) did not explore if this is due to self esteem or self-efficacy issues.

Students participating in a career exploration course revealed no difference in the impact of the class when evaluated for age, and gender of the student and instructor (Rayman, Bernard, Holland, & Barnett, 1983). The students increase in vocational identity is independent of the personal characteristics of the instructor or student. It has been identified that there is a difference in the vocational learning curve between males and females. Male vocational identity significantly increased the first half of a career exploration class, while the females' vocational identity increased in the second part of the semester. Therefore vocational identity accrues across the entire course but not uniformly (Bergeron & Romano, 1994; Rayman et al., 1983).

Successful career courses and selected career treatments have three common elements; obtaining occupational information, benefiting from group treatment, structure/advance organization from career theories and inventories, along with increased benefit from educational activities (Rayman et al., 1983). Career exploration

learning experiences should include values clarification strategies, decision making exercises, and exploration of the world of work. The students have a better experience if the class is for credit (Babcock & Kaufman, 1976).

Many universities offer career exploration courses to assist students with the career decision making process (Carver & Smart, 1985; Haney, 1978; Kern, 1995, Rayman et al., 1983). Career exploration classes are able to assist students to learn more about themselves, life planning, the world of work, and develop decision making skills. Each of these components may assist students in their current decision making and also into the future (Kern, 1995). Making a career choice should not be the expected outcome, but may result from the information and skills developed through the course (Kern, 1995). Career planning and decision making courses have become imperative since 30-50% of students enter college undecided and 75% change their major after entering college, and people change jobs an average of five times, careers an average of three times throughout their life (Walter & Saddlemire, 1979).

Method

Participants

Undecided freshmen university students registered for three sections of an eight week two credit hour, career exploration course at a public university in the midwestern region of the United States (12,000 students, commuter campus). The university uses a sixteen week semester. The majority of the students had previously completed an eight week Freshman Success course for one credit. Thirty-two students are included in this study. The sample consisted of 16 females and 16 males. Seven students (21.9%) were regularly admitted undecided students and 25 (78.1%) were undecided, under-prepared (conditional admit) students. Under-prepared students are defined as being deficient in two out of the three admission standards (SAT/ACT score, class ranking, units of high school math, English, science, or foreign language). With regards to ethnicity, 6.25% were African-American students and 93.75% were Caucasian. The mean age of the participants was 18.69. Students self selected into this class.

Measures

The Career Thoughts Inventory (CTI) was used in this class exclusively as a research tool. It was developed using a rational-empirical approach (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996). The CTI is based on a cognitive information processing theoretical approach. The CTI assumes that dysfunctional thinking in career problem solving and decision making cannot be measured directly but can be inferred by an ones endorsement of statements reflecting a variety of dysfunctional career thoughts. This assessment instrument defines career thoughts as outcomes of one's thinking about assumptions, attitudes, behaviors, beliefs, feelings, plans, and/or strategies related to career problem solving and decision making (Sampson et al., 1996). The CTI is comprised of a CTI total; a global indicator of

dysfunctional thinking in career problem solving and decision making, along with three construct scales: Decision Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC). The CTI is a self administered, objectively scored inventory of career problem solving and decision making. It is comprised of 48 item statements using a four point rating scale (strongly disagree to strongly agree). It has been shown to be a reliable and valid measure of dysfunctional career thinking for high school students, college students, and adults. The scales of the CTI are internally consistent and exhibits reasonable content, convergent, criterion related, and construct validity (Sampson et al., 1996). Scores are reported in T-scores ($M=50$, $sd=10$).

Higher CTI global scores indicate students who tend to have one or more of the following characteristics; less likely to have a clear and stable perception of their goals, interests, and talents as well as less confident in career decision making; less certainty in career/major; less knowledge about occupations and required training; more likely to be in a state of indecision about career choice; and less comfortable with their progress in career decision making and worried about their choice. Higher CTI global scores also reflect students more susceptible to psychological distress and more prone to disruptive emotions that interfere with career development tasks such as: being more prone to irrational ideas concerning career choice, less able to control their impulses, and less able to cope effectively with stress. They are also more likely to perceive themselves as unable to cope effectively with stress, and more likely to become dependent, hopeless, or panicked when facing involuntary employment change. High CTI global score for college students also indicate students who are; less decisive, more depressed, and tending to be easily discouraged.

The Decision Making Confusion (DMC) scale refers to difficulties initiating or sustaining the decision making process. Higher Decision Making Confusion scale scores suggest; a lack of clarity in understanding how to go about the career decision making process; being overwhelmed by the magnitude of the decision making problem which makes the student fail to begin the actual process; negative emotions that impede engaging in the problem solving process (e.g., anxiety, depression, or discouragement); and/or a repetitive cycle of being aware of a career problem, attempting to understand the problem, becoming overwhelmed, and returning to an awareness of the problem that is not solved.

The Commitment Anxiety (CA) scale reflects the inability to make a commitment to a specific career choice, which may be combined with generalized anxiety about the outcome of the decision making process. This anxiety perpetuates the indecision. High scores on the Commitment Anxiety scale suggests students have one or more of the following characteristics; an inability to commit to a single choice after appropriate alternatives have been identified; inability to release less appropriate alternatives in favor of a potentially more appropriate choice; inability to let go of the state of indecision, including the potential secondary gain resulting from being undecided; and an inability to prioritize from a set of plausible

alternatives; a repetitive cycle of being aware of the need to narrow options, failing to commit to a best choice, and returning to an awareness of a problem that is not solved.

The External Conflict (EC) scale reflects the inability to balance the importance of one's self-perception with the importance of input from significant others. This results in a reluctance to assume responsibility for decision making. High scores on the External Conflict scale suggests students have one or more of the following characteristics; confusion about the appropriate balance between pleasing others and pleasing oneself (internal vs. external locus of control, dependent vs. egocentric decision making); inability to differentiate the perceptions of others from self-perceptions (weak identity); and/or an inability to differentiate which perceptions from others are important input for decision making.

Design and Procedures

The Career Thoughts Inventory was administered by the instructor on the first and last day of an eight week (2 credit) career exploration class in a pre-post test format. Inventories were hand scored.

The objectives of the course was to assist the students in learning more about themselves in relation to the world of work, develop decision making and life planning skills, along with learning about the world of work. The class focused on the premise that career decision making is a lifelong process. This course reviewed the ten basic steps of the career decision making process; become aware and committed, generate alternative, gather information about occupational choices, learn about yourself, study the environment (labor trends, economic, political, geographic location, social environment), explore educational objectives and options, make a plan and set goals, make a decision, implement the decision, get feedback and reevaluate if this is not the right choice (Locke, 1992). The instructor emphasized that what is the right occupation at one stage in a person's life may not be the best occupation at a later stage in life because as people develop and change throughout their life so do their goals and values which may influence their choice of occupations.

The class met for 50 minutes, three days per week or 75 minutes two days per week and used the text *Building Your Career: A guide to your future* (Sears & Gordon, 1998). In addition students were required to attend five out of seven weekly, one-hour presentations from professionals in the community, interview two academic advisors (one undecided advisor and one in a specific field of interest), and complete two informational interviews or job shadow in fields they were considering. The career exploration course utilized a values auction to assist in clarifying personal values, administration of the Kiersey Temperament Sorter (online) and the Self Directed Search (Holland, 1970). During the course students explored careers through DISCOVER (a computerized career exploration program) and the world wide web, along with reviewing goal setting and decision making. Students also began to identify their ideal work environment.

The students were required to write three four-page papers. The first paper was a descriptive paper synthesizing their inventory results, class discussions, and homework assignments exploring their values, interests, personality, and ideal work environment. The second paper was an informational paper requiring the student to interview two academic advisors. The first academic advisor was an academic advisor for undecided students where they explored various majors of interest. The second interview was with an advisor in the major the student was considering strongest. The student then wrote about course requirements for their potential major, the GPA required, the career outlook, positives and negatives about pursuing this major, along with their overall impression of the major/career and what they had learned. The third paper was a compare/contrast paper. Here, the student was required to complete two job shadowing or informational interviews in potential careers they were interested in. The students described the similarities and differences between the two work environments of the people they interviewed/job shadowed and also compared-contrasted themselves, their interests, values, and personality to each job. Students were encouraged to discover what each professional liked and disliked about their job, their goals, and how their personality was reflected in their job choice.

Results

A paired sample t-test was conducted to test the effectiveness of the career exploration class. Means and standard deviations were calculated for both the pretest and posttest global Career Thoughts Inventory index ($M=55.66$, $sd= 8.05$; $M=51.06$, $sd= 9.69$, respectively). The scores were analyzed with a t-test for the difference between dependant means, which revealed that the posttest scores were significantly lower than the pretest score ($t(31)=3.65$, $p=.001$). Therefore, it is concluded that the career exploration course decrease general dysfunction thinking career problem solving and decision making. Effect size was calculated via Cohen's d paired samples t-test was large ($d=0.637$).

The global Career Thoughts Index is comprised of three empirically derived constructs of career decision making. The first factor is Decision Making Confusion. A paired sample t-test was conducted to test the effectiveness of the career exploration class with regards to the students' career decision making confusion. Means and standard deviations were calculated for both the pretest and posttest Decision Making Confusion scale ($M=56.28$, $sd= 9.74$; $M=51.31$, $sd= 9.43$, respectively). The scores were analyzed with a t-test for the difference between dependant means, which revealed that the posttest scores for decision making confusion were significantly lower than the pretest score ($t(31)=3.53$, $p=.001$). Therefore, the course significantly lowered the student's career decision making confusion. Effect size was calculated via Cohen's d paired samples t-test was large($d=0.627$).

The second factor of the Career Thoughts Index is Commitment Anxiety. A paired sample t-test was conducted to test the effectiveness of the career

exploration class with regards to the students' career decision making confusion. Means and standard deviations were calculated for both the pretest and posttest Commitment Anxiety scale ($M=55.375$, $sd= 7.13$; $M=51.09$, $sd= 9.45$, respectively). The scores were analyzed with a t-test for the difference between dependant means, which revealed that the posttest scores for commitment anxiety were significantly lower than the pretest score ($t(31)=2.73$, $p=.01$). Therefore, this course significantly lowered the student's commitment anxiety. Effect size was calculated via Cohen's d paired samples t-test was medium ($d=0.469$).

The last factor of the Career Thoughts Index is External Conflict. A paired sample t-test was conducted to test the effectiveness of the career exploration class with regards to the external conflict. Means and standard deviations were calculated for both the pretest and posttest External Conflict scale ($M=58.5$, $sd= 9.61$; $M=56.9$, $sd= 10.19$, respectively). The scores were analyzed with a t-test for the difference between dependant means, which revealed that the posttest scores for external conflict were not significantly lower than the pretest score ($t(31)=1.255$, $p=.219$). Therefore, this course did not significantly lower the student's external conflict.

A one way analysis of variance was conducted to identify if there was a significant difference between males and females. While there was no significant difference between each group it is interesting to note that the females were higher in Decision Making Confusion at the beginning of the class (females: $M=58.88$, $sd=11.73$; males: $M=53.69$, $sd=6.65$) and lower than the males at the end of the course (females: $M=50.94$, $sd=8.75$; males: $M=51.69$, $sd=10.33$). While not statistically significant the females were also higher in their commitment anxiety level both at the beginning of the course (females: $M=57.38$, $sd=8.45$; males: $M=53.38$, $sd=5.02$) and at the end of the course (females: $M=52.19$, $sd=9.76$; males: $M=50.0$, $sd=9.32$). It must be noted that effect sized for gender were all large using eta squared to measure effect size (CTI pre=.604, CTI post=.729; DMC pre=.531, DMC post=.367; CA pre =.359, CA post=.225; EC pre=.160, EC post=.303). This suggests that with a larger sample group significant differences would likely be found.

A one way analysis of variance was conducted to identify if there was a significant difference between regularly admitted undecided students and under-prepared undecided students. Undecided regularly admitted students were significantly higher in the commitment anxiety at the beginning of the course ($F(1,30)=4.45$, $p=.043$). Effect size for was calculated using eta squared (.412) which reflect a large effect.

It must also be noted that the regularly admitted undecided students' means scores were all higher than the underprepared undecided students for all scales pre and post test. The effect sizes (eta squared) reflect a large effect in each category (CTI pre=.482, CTI post=.65; DMC pre=.482, DMC post=.525; CA pre =.412, CA post=.354; EC pre=.213, EC post=.446). This suggests that with a larger sample size undecided regularly admitted students would have significantly higher decision making confusion, commitment anxiety and external conflict than under-prepared undecided students.

The findings support that this eight week career exploration course does assist undecided students with career decision making, decreasing the undecided students' confusion and commitment anxiety. Therefore we can conclude that by taking this eight week course the students decrease their dysfunctional thinking in career decision making and in career problem solving. They also decrease their confusion about the career decision making process and their anxiety about making a career decision. However, it does not decrease their external conflict. Undecided students continue to have difficulty balancing their own self perceptions with the input from significant others and are still reluctant to assume responsibility for decision making.

Discussion

Previous studies have concluded that career exploration courses are beneficial (Reese & Miller, 2006; Kern, 1995; Carver & Smart, 1985, Babcock & Kaufman, 1976). However, the previous studies of career exploration have used the: Career Decision Making Self-Efficacy Scale (Scott & Ciani, 2008; Reese & Mille, 2006), Tennessee Self Concept Scale (Kern, 1995; Carver & Smart, 1985), the Career Decision Scale (Kern, 1995; Davis & Horne, 1986; Carver & Smart, 1985), Career Maturity Inventory (Davis & Horne, 1986; Carver & Smart, 1985), Revised Career Development Inventory (Babcock & Kaufman, 1976), Student Involvement Survey (Carver & Smart, 1985), Career Decision Making Questionnaire (Reese & Miller, 2006), and the Counseling Assessment Form (Babcock & Kaufman, 1976).

The results of this study concur with traits common to undecided students identified in previous studies. The statistically significant difference in undecided students decreasing their decision making confusion indicates this course assisted students with their difficulties making career choices. This concurs with previous studies identifying problems with decision making as a trait common to undecided students (Bergeron & Romano, 1994; Apple et al., 1970; Taylor & Betz. 1983).

While the students became less anxious and confused about the career decision making process the students were still strongly influenced by significant people in their lives. Undecided students have documented difficulty with and lack of self identity (Peterson & McDonough, 1985; Jones & Cherry, 1980; Holland & Holland, 1977; Apple et al., 1970). They also exhibited less ego-identity development than decided students (Gordon & Kline, 1989) and stronger (than decided students) dependency issues (Peterson & McDonough, 1985). This is reflected in the fact that there was no significant difference in the undecided students external conflict score. This makes perfect sense when looking at the undecided students from a developmental advising and developmental career theory perspective. From this perspective it would be unrealistic to expect an undecided student to process through this developmental stage and external conflict in eight short weeks.

The results of this study should be interpreted with caution due to the relatively small sample and lack of control group. Threats to reliability and validity

of this research is that the inventory was hand scored so it is subject to human error in scoring and the students' self selected this class. Another threat is the fact that the instructor administered the inventory.

While this research must be viewed as preliminary due to the limitations of the sample size, it is worth looking into more in depth. Does a sixteen week career exploration course give the students enough time to develop emotionally to decrease their external conflict? How does the external conflict score compare to the Career Maturity Index? Could these two instruments be used together to target undecided students in highest need of intervention?

This research could be expanded and developed more via changes in the sample, types of interventions, longitudinal results from interventions, and typology analysis. Future researchers could replicate this study with a larger and more diverse student population. A random selection of participants within specific career decidedness levels may strengthen the study. A longitudinal study of participants in a career exploration class with a control group could add further insight into the similarities and differences between decided and undecided students. Another area to research that has very little data is if there is a difference between traditional age undecided students and non-traditional undecided students, gender, grade point average, and matriculation rate.

Identifying if there is a difference between undecided students who take a career exploration course, do vocational testing, and/or utilize individual career counseling, in their test results would be illuminating. Measuring student satisfaction with various interventions could provide useful information for counselors and administrators. Longitudinal studies identifying when students declare a major, the number of times they change their major before graduation, length of time to matriculation, and attrition rate could be enlightening.

Identifying Myer-Briggs Type and/or Holland Codes specific to undecided students or if certain typologies tend to stay undecided longer than others or matriculate faster or slower could prove helpful in identifying target populations most in need of interventions.

The implications this research has for other universities and colleges is that it is statistically effective to offer career exploration classes to incoming students even if the results aren't immediately evident in students declaring a major. This is an effective way to handle larger number of students when there is a shortage of staffing and funding.

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TRAINING GENERATES COHERENCE INFERENCES IN STUDENTS WITH LESS-SKILLED READING ABILITY

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ABSTRACT. In this research we examined the role of feedback strategies induced by explicit instructions in producing text-based inferences. We analysed two theoretical positions regarding the process of generating inferences based on the experiment outcomes. The first position argues that a simple update of selective information in the text can guarantee that the inference was effectively elaborated with the view of generate an inference. In contrast, the second position states that, although the less skilled readers recalling the inputs in order to start an inferential process, they encounter resistance when they combine those inputs to generate an inference. The results sustain the second position regarding the subject's ability to transfer the procedure (generated some inferences) to new situations during the experiment had improved when the instructions given to the less skilled readers were clear.

Keywords: *coherence inferences, elaborative inferences, text comprehension.*

ZUSAMMENFASSUNG. Der wissenschaftliche Artikel untersucht die Rolle des Feedbacks bezüglich eines Trainingsprogramms, das als Ziel die Erzeugung von textbezogenen Interferenzen hat. Wir nehmen uns vor, zwei separate theoretische Standpunkte experimentell, im Bezug auf dem Prozess der Erzeugung der textbezogenen Interferenzen, zu untersuchen. Der erste Standpunkt behauptet, dass die einfache selektive Aktualisierung der Informationen aus dem Text eine Garantie für die wirksame Ausarbeitung der textbezogenen Interferenzen sei. Stattdessen sagt der zweite Standpunkt aus, dass, obwohl die Leser mit Verständnisschwierigkeiten die nötigen Inputs für den Beginn des Interferenzprozesses aktualisieren, treffen sie auf Schwierigkeiten, wenn es dazu kommt, die Inputs zu kombinieren, um eine Interferenz zu erzeugen. Unsere Resultate unterstützen den zweiten Standpunkt und betonen die Tatsache, dass Menschen mit Verständnisschwierigkeiten, im Gegensatz zu denen mit einer guten Verständnissfähigkeit, von dem Trainingprogramm mehr profitieren. So gelingt es ihnen, die gelernte Methode auf neue Inhalte zu transferieren und anzuwenden

Stichworte: *Kohärenten, Abzüge, Verstehen von Texten.*

The ability to comprehension a text is dependent not only on vocabulary, word recognition, and syntactic knowledge, but also on the ability to read between the lines. A central premise in current theories of comprehension is that reading is a meaning construction process. But what does it really mean to construct meaning?

Much of the information we derive from texts is not always stated explicitly but is deduced - via the making of inferences - from elements in the text and from our background knowledge of how the world, and texts, work. The inferences we are called upon to make during the reading process are not necessarily the deductive inferences. Understanding a text must go beyond the sum of the sentences in the text. This going beyond the sum of the sentences, filling in the gaps between text elements, linking information across textual units, is referred to as inferencing. Inferences perform text-connecting functions during reading. Indeed, in the early days of artificial intelligence and the modeling of language comprehension on computers, Schank (1976) says inferencing to be “the core of the understanding process”, and text comprehension has itself been described as “an inferential activity” (Rickheit, Schnotz & Strohner 1985).

The ability to make connections, to perceive possible relationships, to see likely links between text entities is a cornerstone of language processing (Singer, 1988). In reading, this ability to construct meaning via the making of inferences is particularly important, since the reader does not have access to other modalities that help meaning construction, such as intonation, speaker gestures, and facial expressions or asking a speaker to repeat or clarify what has just been said.

Cain and Oakhill (1999) discriminate between text-connecting or intersentence inferences and gapfilling inferences. The difference they specified was that intersentence / textconnecting inferences are necessary to establish cohesion between sentences and involve integration of textual information. Gap-filling inferences, by contrast, make use of information from outside the text, from the reader’s existing background knowledge. In a more recent studies the authors like Calvo (2004), Bowyer-Crane and Snowling, (2005) adopted the more current terms of coherence versus elaborative inferencing, which roughly equate to text-connecting and gap-filling respectively. Coherence inferences maintain a coherent text and involve adding unstated but important information such as causal links, e.g. “*Mary left early for the birthday party. She spent an hour shopping at the mall.*” readers will be compelled to explain why Laurie shopped at the mall. When a sufficient explanation for the focal event has not been explicitly provided in the text, readers often maintain coherence by constructing an inference (in the example, the inference that Mary went to buy a birthday present). It is essential to establish connection between these sentences, and as a result, only minimally affected by knowledge accessibility because cognitive activity will keep going until the necessary information to make the inference is found. Elaborative inferences embellish and amplify. As unnecessary to achieve comprehension, these inferences will be influenced by accessibility of knowledge.

The vast majority of research and studies on the work of investigating comprehension interference based scheme (respectively the general knowledge of the subject). It is still relatively little known about the actual process of text-based interferences and implicitly about the skills necessary induce them (McNamara and Kintsch, 1996). However, this interference is a basic activity of reading. Interference

based on text (or allegations) refers to rules and judgments about components of texts. It identifies two diametrically opposed positions, relatively to points necessary to induce interference based on text. First accredits the idea that the ability of selective update knowledge of the text (the premises), which, in combination may result in an interference, the security initiation process inferential. The second position, in contrast, postulates that even weak readers recalls linguistic sites input necessary to generate allegations but which presents difficulties in linking these input links (Oakhill, 1994). Because of these difficulties the generation of interference involves more than simple activation and combination of these two pieces of information. It is a combination of surgery and involves the idea of a qualitative leap. Although the less skilled comprehenders (LSC) shows performance similar to skilled comprehenders (SA) in memory tasks of the text, they fail to combine this information (Mih, 2004). If we add these results throughout our approach so far, we opt for the second theoretical position. From this perspective we propose to test the extent to which some powers of generating text-based inferences can be improved. Strategy which we will use similar methods used in previous training, is centred on technical feedback map.

There is a significant quantity of trials and several experimental studies that emphasizes the key role of feedback in the design of effective programs of reading instruction. Show some general principles, summarized the literature related to providing feedback (Weaver, 1994)

It is therefore:

- a) Providing a feed-back immediately after the correct answer given by students for their feedback should emphasize simple response accuracy (Harvey, Stephanie & Goudvis, 2000).
- b) Providing feedback after an incorrect response should be: immediate; to emphasize the correct answer, for reasons to argue that the latter is the correct answer;
- c) Where a task aimed at understanding how a given rule (such as learning a concept based on examples of discrimination counter example), feed-back must illustrate on examples / counter example, functionality rule in question.

Starting from the studies of Collins (1987), Kucan & Beck (1997) and Winne, et al. (1993) we designed an instructional procedure that uses a relative feed-back to the explicit construction a text-based interference. We intend through this procedure shape to establish:

- a) the role of feedback in the development of explanatory skills generation of assumptions, and
- b) the extent to which these skills be transferred to other materials processing.

The main objective of the present study concerns the potential transfer of the following aspects:

- a) identifying the modalities of the premises and of constraints of a passage;
- b) procedures for the formation of chunks links premise based on the combination and coercion. The two elements must be simultaneously activated

in working memory because the subject can provide answers to pertinent interference questions;

- c) procedural knowledge necessary to generate interference, independent of the passage.

Carnine et al., (1982), gave students the task to read some passages which contained two specific components of information constituted as allegations. Thus, the first gives the information base for an event and perhaps a call right. I usually describe either: (a) an objective that tries to reach one of the characters of a narrative, or (b) a process that generally takes place with some regularity. The rule in this latter sense corresponds to what we called Kintsch (1998) strategy or algorithm. The second type of information is coercion and contextual concerns the application of the rule, specifically establishing the limits which could be applied for that specific rule. The interference resulting from the combination of the two premises is an approximate trial. Events contained in this court are a certain probability. Moreover, this type of interference is virtually an extension of the facts of everyday life.

Based on this principle we created several passages. For example in one of the passages - stimulus of experiment, the rule was as follows: "two boys wanted to plain somewhere near water". The constraint resulting from the response monitor camping, he told the boys not only have two camping sites, one of which is near the lake, and the other is near a store.

Linking rule in (intention) with constraint, the resulting interference plausible: "the boys have decided to rather plain next to the lake than the shop. This conclusion is certainly questionable, but contains the event with the increased chance of achieving.

If you do a little field trip to semiotic, you can make the following comments: normally in everyday life most things happen with a certain probability. Very few times this determines the direct and unambiguous on B. There are two different models of abstract understanding of conduct / sequence of events. Diadal an event in which A causes B without any mediation. For example, hit the leg of a person with a hammer and it moves its feet. Usually, apart from pathological cases, it appears that the person can not refrain from this movement reflex. The process is one diadal. Suppose that the same people say "please move your foot", and then wait. Still want to chance what the recipient will respond. It seems that the time period of my command and his response is packed with many intermediate steps. If you would ask ten different people to move and my leg, I would probably get ten different interpretations of my order. Thus, the second model is a triad in which the A and B there is an unpredictable series of C. C is a space of choice, and in-determination that implies, while non-space between A and B a space of inevitable determinations. Most of our human deeds are governed by the second model. Based on the experiments shown in different areas (for example, that when I drop a glass vase on the floor it usually breaks, of course with a certain probability that if the foot is stretched a thick sponge, likely to break will be much less) trying to

formulate a rule. Then seek an explanation capable to make an event very clear in order to avoid any ambiguity a communicative event. On the basis of rules and constraints of implementing a rule, we can launch the event, on the example above, that “*Michael will camp near the water*” and chose this interpretation.

Given a rule and a constraint induction of interference deck (by answering the question “*Where are the guys camping?*”) which implies the fulfilment of three conditions:

- a) First, subjects must recall the passage of information represented by the rule;
- b) Secondly, students must also update the appropriate information constraint, namely the condition that makes possible to apply the rule;
- c) Finally, students must be two independent sites chunks of information, which maintain them simultaneously activated in memory of long text (Kintch, 1998).

The two chunks links the input form cognitive procedure called interference-based text, and combining results from the constraint rule. The third condition concerns procedural knowledge. This knowledge of procedural rules in the form of information processing is performed by an adult, usually the automatic. In contrast, in the case of children and especially children presenting a deficit of understanding, this assumes that procedural knowledge is not working effectively. Logically all three conditions-terms of both access and application procedure, which transforms the two input links are necessary and sufficient conditions for the construction of a plausible interference based on text.

Case study: providing a feed-back on terms detailed explanation of interferences (rule +constraint) enhances the generation of the bridge inference students with comprehension difficulties.

Method

Participants

Lot of subjects consists of a number of twenty-six students presenting comprehension problems – less - skilled text comprehenders (LSC). Participants were aged between 9-10 years; students were in class III, three schools in Cluj-Napoca. Half of the students were integrated into the experimental group and the other half in the control group. Students selected in the experiment were in the first three classes of normalized Test of Reading Comprehension (TECC) (Mih, 2004). The score for reading comprehension was based on the number of comprehension questions that the child answered correctly from the passages. According to their teachers, none of these children were dyslexic, or had cognitive impairments or severe learning difficulties.

Material

Ten passages of approximately 150 words were written to fit a template develop by Carnine et al. (1982) and Winne, et al. (1993). Each passage contained (a) a problem, (b) a rule that require a problem-solving, (c) a constraint that

developed in correlation with the right problem-solving, (d) an entertainment, which apparently could resolve the issue (s) irrelevant information. Pre-test and post-test phases were formed out of six passages (three for each phase). The other four fragments that remained were used in the training sessions. Corresponding to each passage five questions has been written. The first question asked from a student generation inference was based on text which had two parts: the first part actually own visa inference (*Where Michael is camping?*). The second part of what was required from students was a justification of the assumptions (*Why?*). The answer to this last question requires a reactivation of both the rule and coercion. It is important to note that the two chunks links information Peel is not mutual, in other words, no information (explicit element of consistency of the text) present in the question does not facilitate recall inferential rule or constraint. The answer to the question “*why?*” ensure that the student is able to associate and to update knowledge of the text that are necessary inferential process.

Procedure

Two group of students participated in the: an experimental group of subjects of a training phase in order to generate learning from a text-based interference, and a control group. Initially the two groups of students were equivalent relative to the performance of comprehension, ($t = 0.45$, $p = .70$) indicating insignificant differences between groups at TECC). All students were subjected had a preparation time. In order to establish baseline performance of the two groups immediately after preparation phase, both groups were given a pre-test. The pre-test contained three passages and three sets of questions of six questions each. Immediately after, the subjects were reading passages to answer those questions.

In the training phase of the experimental students were trained during eight meetings by a group of three tutors (each of them being the tutor assigned to a group of four students). To reduce the heterogeneity of instructional procedures, which would implement the three tutors during the training sessions; a standard protocol was convened, which surprised the main sequence phase of training. Additionally, the tutors have been provided with a second protocol, which included (a) items that question would be asked students and (b) responses for these questions.

Finally, students were given a similar post-test / pre-test (basically a form of parallel pre-test) record for procedural knowledge transfer. Collection of statistical data under review resulted from the processing of the two types of protocols (initial test and pos test).

The preparation phase was designed to avoid potential conflict between groups and, for levelling the differences between subjects, relative to understanding pregnancy. The role of this phase was to help the students to familiarize with the task, namely to clarify it in terms of student load. For this purpose we developed two passages similar to those used during the pre-test and post-test. In this phase the student supervisors steps in. Thus initially the supervisor read aloud each

passage to prevent some problems decoding some major difficulties in processing. Meanwhile, the students are looking for each word / line of text read a copy of the passage, which they have received in advance. Immediately the tutor (a) reads first item and ask the inferential question, (b) repeats the inferential question, (c) the student repeats the answer, (d) the students are required to emphasize the passages from the sentences which contains the answer. Given the fact that students aged 9-10 years do not yet have a capacity for providing well-structured arguments (in particular the children with lower understanding abilities) to enable them provide answers to the „why” question we conclude that the two phrases which they chose are indirectly answering the questions concerned. We also postulate that the proper emphasis by students of the two expressions reflects their ability to recognize the default rule and coercion, which is developed inference.

Control group. In the preparation stage of the control group, the tutor was repeating the inferential questions and was indicating the right answer after the child stressed the answer. There were two situations: given that the student’s oral response to the question was correct deductive (i.e. the inference was made, based on a para-phrase of the rule and coercion), the tutor thanked the students for listening the text carefully and for choosing and underlying the answers. If the student response was incomplete or incorrect, the tutor would indicate the correct answer. In both situations, the tutor uses a coloured pencil to highlight on the student’s sheet the information given by the rule and by the critical fact.

Experimental group. In comparison with students from control group, students in the experimental group were given a feedback on the basis of repeated explanation (Duffy at al., 1987). Thus, as a general principle, tutor explained and demonstrated to the student’s rule which can be applied and the way in which coercion can be used to generate a correct inference based on text information. This process involves (a) the student awareness of the issue raised by the passage, and (b) and rule emphasis and coercion (tutor indicating again the two components, even if the student has made the right choice) during the reading voice hard. Also discuss why the constraint was considered in relation to the problem and put surrounded every expression that is found in the text.

Each student's response was discussed in detail. If the answer was incorrect, the tutor explains why the answer is incorrect and argued the correct answer. Given the difficulty of understanding by students of third grade the concept of inference, the supervisor used a terminology appropriate level of understanding of the student. The question was called inferential in terms of student “work that it must guess / discover in the text. “Rule” and “coercion” (which makes the rule to be applied) were designated “things / words to be looking in the text.

Thus, “rule” is information that tells us “how to guess the answer” using information “that makes the rule to could be applied”. To ensure that (a) the answer

understood by the student and not only indicated randomly and (b) the identification of the information used by arguing why a particular answer was chosen had to be clear enough; the tutor was indicating again the sources which were containing the declarative relevant information from the text. This method was functioning in a similar way with the some recognition patterns for identifying the information necessary for elaborating inferences based on a text.

The tutor encircled the answers which was in accord with the rule and those who were in accord with the constrained were connected by a drawing a line between them while he was describing and explaining how the rule and the constraint were connected and functioned. The explanation included an explicit description of the way in which a deduction can be elaborated based on this type of information.

Then the five comprehension questions were explained and the role of every single type of information in providing the right answers. Thus the focus was on the role of the distracting information and of the irrelevant information in the inference generation process. The repetition of information necessary for inducing the inferences resulted in a sort of information's saturation and overloading with explanations regarding the inference induction process. The method used, called the explanation strategy it is similar with the method elaborated by Winograd & Hare, (1988) and Winne, et al. (1993).

Explaining strategy involves the following components: (a) defining the strategy, (b) what strategy should be used, (c) how the strategy can be used and (d) when and where it can be used.

Thus, "rule" is information that tells us "how to guess the answer" using information "that makes the rule to be applied. To ensure that (a) answer the student is understood by him and not only indicated the chance, and that (b) identification information for the reasoning behind the response is sufficiently clear; tutor indicating again that the sources contained declarative information relevant text. This method also works for pattern recognition to identify the information required to prepare text-based inferences.

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Results and discussion

Results are presented in Table 1 and summarize the appropriate standard deviations and the different variables evaluated for experimental groups and control the stages of pre-test and post-test.

Table 1.
The standard deviations and the number of update based on the variable type of group and the test

		Experimental group		Control group	
		Pretest	Post test	Pretest	Post test
Inference	M	1,21	1,75	1,10	1,32
	σ	(0,72)	(0,47)	(0,93)	(0,47)
Updating rule	M	0,76	0,83	0,81	0,72
	σ	(0,42)	(0,33)	(0,77)	(0,61)
Updating constraint	M	0,43	0,54	0,43	0,88
	σ	(0,50)	(0,52)	(0,65)	(0,63)
Motivation rule	M	0,53	0,96	1,10	0,87
	σ	(0,31)	(0,50)	(0,87)	(0,59)
Motivation constraint	M	0,39	0,88	0,48	0,65
	σ	(0,42)	(0,48)	(0,76)	(1,10)

The processed statistical information indicates that there were not significant differences in the pre-test in comparison to the number of inferences generated within the two groups of subjects (control group vs. experimental) ($F_{(1,24)} < 1$, $p = ns$). Thus we are justified in believing that from the start, the two groups of subjects were equivalent in terms of inferential capacity. There haven't been significant effects in the control group between pre-test phase and post-test at any of the variables taken into account ($F_{(1,24)} < 1$, $p = ns$).

Given that the hypothesis requires evaluation of the impact of training on two groups of subjects, we examined the differences in performance pos-test for the following variables: the inferences, the motivation of the inferences and the recall of the „rule” and „coercion”. The compare between the results of pre-test and post-test of the experimental group showed a significant profit to the following variables: inferences ($F_{(1,24)} = 5.12$, $p < .05$) and motivation rule ($F_{(1,24)} = 6.94$, $p < .01$) and motivation constraint ($F_{(1,24)} = 7.63$, $p < .01$). These data confirm the hypothesis.

It is important to note that there were not obvious differences between pre-test and post-test between the recalling performances of the „rule” contents and the „coercion” contents in the two groups of students.

This outcome somehow contradicts the outcome of the previous experiment which was indicating a significant increase of the memory performances including the content which were not part of the initial preparation (literal inferences).

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This outcome somehow contradicts the outcome of the previous experiment which was indicating a significant increase of the memory performances including the content which were not part of the initial preparation (literal inferences).

Discussion

We would like to analyse the two theoretical positions presented in the introductory part regarding the process of inducing deductions based on the experiment outcomes.

(1) The first position argues that a simple update of selective information in the text with the view of creating an inference can be guarantee that that inference was effectively elaborated.

(2) In contrast, the second position states that, although the less skilled readers recalling the inputs in order to start an inferential process, they encounter resistance when they combine those inputs to generate an inference.

Given a rule and a constraint induction, the induction of an inference based on the text information (by answering to the question: Where the boys have camped?” implies three steps through inference a text-based information (the answer to the question: “Where the boys are camping? ”). Firstly, the subjects must recall the information represented by the rule. Secondly, the subjects need to update relevant information related to the constraint, namely the condition that makes possible to apply the rule. Finally, it is necessary that to establish two independent sites chunks of information that should be simultaneously activated in long-working memory. The two chunks links form the input of a cognitive procedure which is called “an inference based on a text”. This inference is a result of the combination of the “rule” and the “constraint”.

The third condition concerns the acquisition of procedural knowledge. The procedural knowledge is represented in forms of rules / procedures and they represent information processing which are automatically processed by high performance readers. In contrast, these procedures don’t function effectively when it comes to children and in particular children with low understanding abilities. Logically all three conditions represent the necessary and sufficient premises for the creating of the “plausible inference” based on the text content. Based on these arguments we can infer a certain resistance demonstrated by the SD combining the two sets of information and make them compatible them simultaneously.

The absence of the training statistically significant consequences of the update performances of the corresponding “rule” and “constraint”, suggests that the students from both groups (the experimental group and the control group) have an equivalent representation capacity with the two events from the text.

This fact is proved by the fact that the groups of subjects achieved quite similar performances in respect of the explicit questions regarding the “rule” and the “constraint”. In spite of this equivalence on updating the two components necessary to develop an inference, in the control group the inference generation hasn’t occurred which demonstrates that the semantic knowledge exclusively are not sufficient to generate the inferential process.

There are three factors which can be held responsible for the educed inferential performances of the students of the post-test control group:

- a) an inefficient access of the information corresponding to the “rule” the relevant information inefficient regulation;
- b) an inefficient access of the information corresponding to the “constraint”.
- c) an inefficient functioning of the procedure which is responsible for accessing and combining the content of the “rule” with the content of the “constraint”.

When an inference based on a text is elaborated it is necessary to activate simultaneously of the two terms (declarative knowledge) in working memory (Kintsch, 1998). Generating an inference involves more than a simple combination of two informational contents. It's about an ability to operate at a superior level which implies the concept of the qualitative leap.

The subjects from the experimental group who have learned how to relate information in the two text and who were offered an ongoing feed-back regarding the inferential components achieved higher performances than the subject from the control group.

It was observed that the subject’s ability to transfer the procedure to new situations during the experiment improved when the instructions given were clear and when the elements which contributed to the creating the inferences were stressed appropriately along with rewarding the subjects whenever they gave the right answers. The interaction subject-tutor and the procedure of emphasizing the key expressions helped the subject to understand why is important that an information to be updated. We can state that the simultaneity of the verbal and imagistic codes is improving the learning capacity. The second objective of this study was to compare the effects of explicit instructions vs. the implicit instructions. During the pre-training, phase we used implicit feedback which was highlighting the essential information necessary to generate inferences. It was observed that the subjects who have received an explicit feed-back achieved better in creating inferences. There were no significant differences between the two groups in respect of the other variables.

Important conclusions which emerge (in conjunction with the other outcomes of other researches) are the fact that providing a detailed feed-back in the inferential process based on the information from the text has a localized effect (Day & Zajakowski, 1991). This effect materializes only for the tasks which are similar to those used during training. One of the suggestions which emerges from this study is that the teachers should use specific methods for specific acquisitions procedures.

One of the reasons for the inducing inferences at the students being difficult is that the ordinary instructions from classroom doesn't require the generation of such inferences.

The lessons which are been provided for the less able students are focused mainly on the ordinary reading skills and on recognising words. Thus the temporarily resources which are to accompany the comprehension instructions are reduced to minimum (Kos, 1991); an even smaller proportion of these resources are allocated to the inferential process based on the text contents.

In conclusion, we can state that the study confirms and reinforce the fact that the students who are exposed to the explicit learning instructions of inferences will understand in a much shorter period of time the task demands and consequently the text meaning.

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THE PSYCHO PEDAGOGY OF ENDOWMENT

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ZUSAMMENFASSUNG. Die unermeßliche und wichtige Problematik der Überklugheit, verursacht besonders in der letzten Jahrzehnten, das theoretische und praktische Interesse der Spezialisten für der Anlauf der Terminologie, des Inhalts, der Methodologie der Untersuchung und der Formen der Organisierung der instruktive und erzieherische Aktivität. Auf dem Grunde der psychopädagogischen Literatur und auf der Basis der Untersuchung des beschprechenden Phänomens, das Werk präsentiert einigen Anblicke, von der Natur die anbietet die Struktur einigen theoretischen Daten und die Ergebnisse eines Studiums unternommen mit der Studenten.

Man hat festgestellt daß die Studenten haben eine inkomplette Widerspiegelung bezüglich mit der Hochbegabung, darum es ist notwendig daß sie müssen vorbereitet und ratgeschlagen sein, für die Tätigkeit mit der Schüler, die beweisen Überklugheit.

Schlüssel Wörter: *Überrkluge Kinder, Exzeptionelle Kinder, Begabte Kinder, Schöpferische Kinder, Nichtgleichzeitigkeit, Unterrealisation.*

ABSTRACT. In this article the author presents a short terminalogical approach concerning exceptional children and the way the term change in time, having into consideration different psychological paradigms. Thus, a psychological profile of the highly gifted children it is also shaped in order to underline their great complexity. In order to emphasize the fact that although the exceptional children as a psycho-pedagogical area can be individualized, teacher treaning to work with them can be improved, the author organized a short research based on a questionaeer among 1st year students, those being in their first didactical training program.

Keywords: *exceptional children, highly gifted children, psycho-pedagogical profile, intellectual abilities.*

1. Conceptual limitations

The term “exceptional children”

According to the psychologists Tiberiu Bogdan and Iulian Nica (1970) the term “exceptional children” includes:

- The highly intellectually gifted children or having special aptitudes;

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- The under gifted children (mentally challenged of all types);
- The sensory deficient (people with eye sight deficiency, blind people, people with hearing deficiency, deaf-mutes);
- The people with movement deficiencies, the speaking deficient (stutters);
- The personality disordered (children in risk of moral disorder, deviant behavior, juvenile delinquents etc.).

A first remark: all of these children differentiate in a way or another from the ordinary norm, they contradict in a certain way the socially accepted pattern for the children of the same age as them, so they are exceptions – positive or negative – vexing the parents' and teachers' expectations, raising extra problems. From this it results that every exceptionality type gives a series of differentiating educative techniques, because these children's evolution follows a certain path.

It is specific for this category of children that they raise unordinary problems; some authors are inclined to consider that an exceptional child can become a factor for family unity disintegration (we refer to the negative exceptionality, as well to the highly gifted children (M. Jigău, 1994)).

Another characteristic of all these children (the exceptional ones) is their difficulty to adapt and integrate generally, among the people with the same age, as well the tendency to isolate from the others.

In the case of the gifted children the situation is explained by the constant study, by the precocious specialization; they can't find an adequate language to communicate and they usually isolate themselves, this fact setting backwards the maturation process socially and morally (as important as the physical or intellectual maturation). The children with special needs (the other category), after the first social failure tend to isolate, fact that constitute an unwanted addition to the feelings of inferiority that appear in these children's case.

The fourth characteristic is their difficulty to integrate in the social life. The programs are put together statistically with a view of the physical and mental evolution of the "average child". After Gauss' curve 75% of the pupils are average, 12,5 % above average, and other 12,5 % are below average. About 5% of the scholar population are the gifted children, and another 5% cannot fully withstand the school's requirements. It is estimated that 10% of the total are children with special needs: some having a high assimilation rhythm, the other a slow rhythm. For both categories, special measures are necessary, from school as well as from the family, the positive relationships with them and the realistic spirit being essential.

The term "highly gifted children"

High giftedness has always been associated with a very high level of intelligence, having a remarkable cognitive development which is way ahead of the chronological age, and with the presence of remarkable special abilities. According to the statistics, the highly gifted represent approximately 2% of the population. It

has been determined that this percent is growing in the developed societies, because of different educational conditions that can be chosen by these children, and that can offer them a proper development according to their abilities.

At the beginning of the 20th century, with the enhancement of research in the field of evaluation methods based on psychometric measurements, intelligence is associated with the intelligence quotient (IQ), which represents the ratio between the mental and chronological age, multiplied by 100.

Having in mind the results of one of the intelligence tests of the time-the Stanford-Binet scale, the well-known American psychologist Lewis Terman considers the children with an IQ of over 130 as “gifted children”, the children with an IQ of over 140 as “highly gifted children”, and for the ones with an IQ of over 170 he uses the term “genius”. Terman opened one of the directions in research and interventions regarding gifted children: the use of IQ tests that are still used today, mainly for tracking down the children with high potential, not being the only criteria in this way.

Over the last years, because of giving high credit to this area, and from the desire of giving an adequate and flexible definition of “high giftedness”, there have been particularized many types of over giftedness. The Marland report also includes performances concerning the ability to lead the others, creativity and psychomotor skills; in his “Theory of multiple intelligence” H. Gardner points out that high giftedness can also appear in non-scholastic areas of interest; through his triarhic model of high giftedness, in which analytical, synthetic and practical elements are involved, Sternberg suggests that many people can be considered as highly gifted or having a potential of high giftedness. (G. Kelemen, 2008). We consider that only by combining these points of view we can elaborate a definition for high giftedness, that is applicable in a practical-educative way.

Although in general they have the same needs as all the other children, it has been noticed that the highly gifted are different from the ordinary children, as well as from the other gifted children, because they are:

- Children with a very high intellectual development;
- Children that outstand themselves by abilities in specific areas;
- Children with extremely high developed talents.

The terms “talented and creative”

For defining the gifted children, the French psychologist Remy Chauvin used a different terminology from the one used by the American psychologists. He uses the terms “talented” and “creative” to emphasize the necessary differences. Americans used the term “gifted” for children with good performances in all school disciplines, and the term “talented” for the ones with special results in a small number of school disciplines, or just in one discipline. Referring to the “creative child”, Chauvin uses the definition “the original, imaginative, non-conformist individual” (apud, C. Crețu, 1997).

2. A synthesis of contemporary theoretical models regarding the superior giftedness

The specialized literature (C. Cretu, 1997) offers a synthesis of theories and models regarding high giftedness that put an emphasis on its specific characteristics. In a complementary vision, they are structured as following:

- models that consider the phenomenon as a relatively stable capacity, independent of historical cultural developments , socio-economics (Gardner, Taylor)
- models targeted mostly on cognitive components of the phenomenon (Sternberg, Davidson, Jackson, Butterfield, Ruppel), who considers the quality of processing information more relevant to diagnose the level of intellectual performance than the result of a test of intelligence (IQ).
- models oriented on performances accomplished and / or virtual (Renzulli, Feldhausen, Gagné). Demonstration of differences between high abilities , accomplished, stated and only virtual ones, has an intention to diversify the strategies of support for gifted education, in school practice.
- models oriented on the socio-cultural environment and psycho-social action (Tannenbaum, Csikszentmihályi, Mönks). On these specialists opinion, the political climate, economic situation and public opinion determine the quality of fields like research and high priority educational intervention of the psycho-pedagogy assistance for individuals with high abilities.

F. Heller and K. Monks have proposed a classification of contemporary patterns of:

- a) descriptive models and
- b) explanatory models.

This classification demonstrates interdependence between theory and the methodology of identifying and cultivating high abilities.

- a) In descriptive models, superior endowment is interpreted as an ability or talent, expressed in multiple areas of knowledge and human practice. „Taxonomy of multiple talents” defines high-ability as an individual and social resources composite which establishes over average achievements in one or more areas of activity, characterized by difficult theoretical and practical tasks (Heller, apud C. Cretu, 1997).

„Multiple intelligence theory”, developed by H. Gardner, limits and describes seven cognitive components, relatively independent: language talent, logical-mathematical, spatial intelligence, musical intelligence, kinestezical intelligence and interpersonal intelligence and intrapersonal.

The model developed by G. Gagné distinguishes between „high gifted”and „talent” emphasizing that the first expresses a psychological reality existent or only potential, while talent refers to social performance abilities recognized. The structure of highly gifted presents the following complex components:

- Abilities (intellectual, socioaffectives, sensomotions)

- Domains of expression of talents (academic, artistic, interpersonal, sports),
- Interpersonal „Catalysts” (motivation, curiosity, autonomy, perseverance),
- Environment variables (family, school, colleagues, friends).

Multifactorial model developed by Heller and Hany identifies five areas of talent (intellectual ability, creativity, social competence, artistic ability, psychomotor skills) and some areas of performances (languages, mathematics, science, technology, art craft, commerce, arts, sports). The description and analysis of interrelations between potential talents and performances expressed are based on a multifactorial causal model of talent and performance, including cognitive factors, noncognitives, preconditions for the development of personality, situational and social factors and moderating variables, meaning the catalysts of F. Gagné .

b). Explanatory models examine the development of high gifted ability more by analyzing the process rather than the product and distinguish between each other by the importance attributed to personality factors and socio-cultural factors in determining intellectual excellence. The best known models of this category belong to the authors: Renzulli; Renzulli and Reis, Monks, Landau; Tanenbaum; Sternberg.

The model of the overall success developed by C. Crețu theoretically grounds projects adapted to the realities of our country, of identification and organization of education opportunities afferent to curricular themes. Among the theories listed in the contemporary stage of the psihopedagogical field, this model uses especially the models of the authors JS Renzulli, F. Monks & Van Boxtel, E. Landau, F. Gang and H. Gardner.

3. Psychological profile of highly gifted children.

A series of research done on the characteristics of high endowment manifested in childhood highlights common opinions on the defining aspects. The analysis of these conclusions made by Walberg, Rasher and Hase (apud C. Crețu, 1997) mentions *the cognitive domain*: intelligence higher than average, high concentration ability, persistence, communication qualities such as precision and expressiveness and *affective –attitude domain*: increased general sensitivity , optimism, charismatic qualities, receptivity towards morale principles.

Significant studies on psycho-pedagogy concerning the intellectually exceptional gifted child emphasizes other psycho-behavioural features specific to high endowment. Realizing that they *are different from the rest of others* generates some internal conflicts. Because of their special cognitive ability, higher than chronological age, many conflicts install themselves at conscience level, leading to the emergence of problems.

Asynchronous development on different levels, determines emotional reactions and a specific indaptation, sometimes inducing behaviors incompatible with those of normal children. „*Desynchronous*” is the term proposed and theorized by the French Professor JC Terrassier, 1989, to designate the gap between cognitive / intellectual and emotional development . A child with this syndrome can easily understand what his

age colleagues will understand of just over 3.5 or 7 years, but he can not stand, like them, even the most common frustrations and conflicts of everyday life. The arrhythmic evolution of cognitive and emotional life makes him much more vulnerable and, contrary of expectations, more dependent on others.

The unsynchronization between intellectual and psychomotor development establishes the inability of some gestures. The movement abilities reached later the intellectual level, motivating the large intervals of time between the formation of reading and writing abilities (relative grafo-movement delay and other learning difficulties).

Exceptional learning ability for education is a distinct characteristic of the gifted child. The rapid rhythm of educational and social learning predisposes the child with high intellectual ability to the boredom situation, which leads essentially to an underrevolution given the personal possibilities, if cognitive and compensatory affective stimulus are not offered. It must be stipulated that *understimulation* manifests not only by the frustration from an experience register diverse in content, but also by untraining of deeper levels of understanding and feeling.

The specialized literature certifies the fact that, in terms of personality factors, compared to students with high intellectual abilities who have very good school performances, students intellectually gifted, but who are in a situation of underachievement manifest in a larger measure:

- social infantilism, emotional disturbances, antisocial behavior, diffidence, low school motivation, strong motivation of affiliation to extracurricular groups;
- tendency to attribute success to inborn talent or inspiration (contrariwise, the students with performances attribute success primarily to personal efforts);
- tend to assign failure to hazard or destiny;
- the lack of perseverance;
- inadequate autoexpressing, inability to establish positive social relationships.

Other characteristics of the psychological profile of children with high intellectual abilities will be emphasized in the next sub-chapter.

4. Study on the perception by the student of the psycho behavioural characteristics of gifted students.

Preparing future teachers to work with gifted students becomes, in our view, an imperative of modern education.

To know the students image on the gifted's personality we undertook an investigation on a sample of 198 subjects, students in the 1st year at various specializations in the faculties of „Petru Maior” University of Targu Mures.

The students were asked to respond without mentioning their name, based on their own observations and findings to a questionnaire containing six questions, as follows:

1. Mention 3 features of the behavior of the highly gifted children

The opinions expressed regarding this aspect refer to features such as: special interest for knowledge (40,63%); high intelligence(38,75%); creativity (20,63%).

Although in the works destined to this subject there are mentioned as dominant features of individuals with high intellectual abilities, cognitive features, the answers of questioned subjects put in front the motivation for a discipline, “very much interest for what they like”, “the curiosity”, the need of permanent, not-required practice,”

2. Mention 3 positive features of the behavior of the highly gifted children.

At this requirement, the subjects mention perseverance and self-control (17,24%), for example: “they take responsibility”, “tidy, independent”, “thorough”, “calm in difficult situations”. Other two features mentioned are a high self esteem (15,52%) and extroversion (17,24%). Some of the opinions mentioned regarding this characteristic: “talkative”, “restless”, “they like to be the center of attention, to be noticed”, “noisy”, “active”, etc.

3. Mention 3 negative features of the behavior of the highly gifted children.

The questioned subjects see as a negative feature of the highly gifted: non-sociability (53,33%). Other significant statements: “they are interested only in school and study and don’t do anything entertaining”, “they pass through childhood, doing mature things”, “a childhood lived with a scholarly attitude, surrounded by books instead of playing”. Other negative features mentioned are introversion (36,67%) and impulsiveness (7,78%). We present some suggestive opinions regarding these features: “paying attention to their own person”, “having suicidal tendencies”, “short tempered”, “can have different conflicts because of their egoism” etc.

4. Mention at least 3 risks the highly gifted children are exposed to.

Among the risks the highly gifted persons are exposed to, mentioned by the investigated subjects, are: the danger of being excluded from the society/failure (39,41%), “the danger of getting sick “(17,73 %), “frustration” (22,66 %) and the under-fulfillment (8,37 %). Related to this last situation we come across these opinions: “the decrease of self-confidence”, “lack of motivation”, “he/she faces the risk of becoming passive to what happens around, to break from reality”, “they find it hard to adapt to life situations that don’t match their expectations”, and others more.

5. In your opinion, how is the teachers’ pedagogical manner regarding the highly gifted children supposed to be? Mention a few ways of action and intervention.

Regarding the psychology of over giftedness, the opinions of the questioned subjects tend to be much more general, without including actual methods, and differential training techniques for the upper segment of the school children. We come across opinions such as: “teachers should understand the behavior of the highly gifted, should listen to their problems, should communicate with them and should stimulate the other students to do the same thing, in this way avoiding the ignorance of the student from a social group. These students often need psycho pedagogical counseling”, “the pedagogical behavior should be more special, the teachers should be better prepared, should have as much knowledge as they can, to avoid experiencing difficulties when a highly gifted student has a question or a doubt; methods – many games and actions to interaction better with

each other, but at the same time develop in normal conditions”, “the teachers need to be prepared to match the requirements of these students, and at the same time they must suggest new tasks not to get them bored”.

From the answers given by the majority of students in the research, comes up the idea of recognizing the need for the special training of teachers who will have activities with highly gifted children.

In our opinion, the difficulty the students face when presenting special methods/techniques can be replaced by adding special topics regarding the psychology of the highly gifted to the primary psycho pedagogical training program, and by making the curriculum appropriate also for students with high intellectual abilities.

Likewise, for informing the teachers, and for providing them with actual techniques of differential training for the highly gifted, we can find place for discussions about special psycho pedagogy subjects into the continuous training program.

As a conclusion, we can specify that the image made by 1st year university students who will be teachers, referring to over giftedness is incomplete, which determines us to emphasize the necessity of special training and psycho pedagogical counseling regarding the subject.

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DYNAMIC EVALUATION

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ZUSAMMENFASSUNG. Dynamische Bewertung versichern erfolgreiche Chancen des Themas durch die Berücksichtigung jeden realisierten Fortschritte. Feuerstein-Methode ist, sich durch die Forschungen metakognitiven gefolgt Berühren eines Gewissens-Ebene von einem Mann und die Kontrolle der selbst kognitiven Fähigkeiten und Verhaltensweisen. Der Erfolg von Feuerstein-Methode wurde durch die folgenden Fakten:

- Das Verfahren, die Flexibilität, die Möglichkeit ihre Applikation in verschiedenen environments;
- Das Programm der Präzision bei der Entwicklung der kognitiven Fähigkeiten und der kognitiven improvement Intervention;

Die Grundsätze, die auf der Grundlage von Feuerstein-Methode sind:

- Kognitiven Bereich die Priorität, als ein Ort der Intervention;
- Intelligenz ist eine Kapazität im Dauerbetrieb Änderung.

Schlüsselwörter: *Feuertsein Methode, Instrumental Enrichment Program, Forschungen metakognitiven, kognitiven improvement intervention.*

ABSTRACT. Dynamic evaluation assure successful chances of the subject through considering each realised progress. Feuerstein's method is joined through metacognitive researches which followed touching a conscience level of a man and of controlling the self cognitive abilities and behaviours.

The success of Feuerstein method was possible by the following facts:

- the method's flexibility which made possible her aplication in various environments;
- the program's precision in developing cognitive's abilities and cognitive's improvement intervention;

The principles which are at the basis of Feuerstein method are:

- cognitive sphere's priority, as a place of intervention;
- intelligence is a capacity in continuous changeing.

Keywords: *Feuerstein's method, Instrumental Enrichment Program, trough metacognitive, cognitive's improvement intervention.*

1. Directions in formative psychodiagnosis: R. Feuerstein - Learning Potential Assessment Device

Learning Potential Assessment Device - LPAD, elaborated by R. Feuerstein, represents one of the actual and modern directions of formative psychodiagnosis.

The classical psychometry allows a static evaluation of person's general intellectual abilities. By definition, the redaction and interpretation must be standardized, the situation has to be conformable for each subject and whichever the result is, the psychologist forbids an intervention for the adult, this could lead to errors in the evaluation. The classical tests favour the rapidity of the evaluation, more than the action process of observing the person. (Vanini, 2003, p. 59).

Dynamical evaluation of learning potential disconcerts these rules, for the elaboration and for the choosing the situation also. The situations aren't caught, for their conformity to school and professional activities, but for their heuristic value about their potential and for the understanding of the rules and concepts. The psychologist interferes for augmenting the subject's possibilities to succeed, leading his action, sustaining him whenever he needs and allowing him to elaborate some concepts or the procedures of which he is deprived. The notable difference to the traditional evaluation is the fact that each progress is considered a positive coefficient of a possible evolution. Regarding the traditional tests the smallest fail leads to a shadow of doubt about the others performance (Feuerstein, 1995).

It must be mentioned the fact that the progresses obtained aren't artificial, but revealing for the subject's ability of learning, for his potential.

Learning Potential Assessment Device has 3 times:

T1 or the pretest is the moment when the subject is evaluated for what the subject can do by himself. The mediator interferes at the beginning and analyzes all the difficulties. So, this T1 shows the present level of the subject, than starts the mediation when the subjects is in difficulty, till the moment T2.

The difference between T1 and T2 represents "*the proximate level of the development*". T2 can be fixed by a retest, which goes after the learning situations. This difference reveals what the subject can learn, his potential. It's important to underline the fact that, in general, this potential is not correlated with the subject's performance, so it can be evaluated starting from the student's daily results. The difference between T1 and T2 is not an evaluation. The third one T3, after many weeks and months, compared to the pretest and the training, must verify in different situations, what the subject is doing by himself. T3 has in view five qualities, it implies not only the keeping, also the structural dimension of the inherited information. These five qualities are: continuity, the resistance, generalization, the transfer and the flexibility of the inherited information.

The real evaluation of the learning potential is the difference between T3 and T1, these two times being the subject's activity. The intercurrent steps are very important, because are full of indications about the rhythm and learning modalities, about the reactions to difficulties and mediation.

2. Instrumental Enrichment Program

The aim of the Instrumental Enrichment Program is to develop an already potential, showed by LPAD, and to determine its flexibility.

The Instrumental Enrichment Program is the result of the studies and researches led by Feuerstein after the Second Great War, when he focused on getting back the teenagers whose social-cultural rights have been deprived of, and they weren't well developed, as the persons with cognitive disabilities.

The positive results of the method led to its spreading in many countries and its adaptation in different contexts. The theoretical part and the interfering program were defined and systematized completely. A lot of ideas can be identified in many proposals about metacognitive nature.

Feuerstein's method success can be assigned specially to some factors:

- the *flexibility* of the method which allowed its application in different situations. The method is addressed to the disadvantaged teenagers from the social-cultural point of view and the persons with disabilities, also. The method was applied in the special education and general education, also, a domain that has in view the development of the cognitive abilities and the studying the normal people. In the last years the method was applied also in the productive section, in the training programs for some companies, a district characterized by the exigence of responding to technological and organizational challenges. The basic goal of the method is to develop the person's ability of accommodation to new and complex situations. The flexibility is due to the basic characteristic, the focus on the cognitive processes: attention, memory, a logical reasoning, which can be applied in different contexts.

- *the precision* of the program about the development of the cognitive abilities, and the intervention of cognitive amelioration. For many times the metacognitive programs don't present operational indications, so the educational cadres can meet difficulties in the application of these methods. The Feuerstein method previews instruments and materials very well defined, strategies also to use them to guarantee an uniformity and coherence in actions done by the academic people. Feuerstein emphasizes the fact that the superficial and mechanic use of the proposed materials can lead to pitching in its use. It is necessary to know very well a theoretical and conceptual part on his program is based on.

The precepts the whole Feuerstein theory is based on are:

- the cognitive sphere priority, as a favoured place of intervention;
- intelligence as an ability which is always modifying;

The cognitive sphere priority

Feuerstein attention is focused on the person's cognitive sphere: attention, memory, logical reasoning, abstract way of thinking. This choice is sustained by a lot of reasons:

- in the first place, the cognitive abilities are viewed as the basic instrument through which the person can control himself and adapt to the environment;

- the nowadays society is characterized by rapide changes imposing for each person the ability to adapt himself to new and complex contexts. Only a well

developed cognitive ability may permit the efficient interaction with places in permanent changing. This aspect is in concordance to the situation that is present nowadays in our school where we always have a new methodology, based on the use of informatic technology. So the pupil is asked some cognitive abilities more and more complex and sophisticated. It is obvious that when some potential cognitive programs are absent, the children with learning difficulties or with cognitive disabilities can risk to be more disadvantaged.

- the cognitive sphere presents a high level of flexibility compared to psychical sphere or to emotional one. The last one represents for the subject a very familiar part, so less available for the outside. The intervention at the cognitive level has important repercussions about all the others spheres: the movement one, emotional, motivational, so the development of some new cognitive abilities that lead to the self esteem augmentation and pupil's self-control. The cognitive subsystem may be considered as the basic way through which we can reach to the others systems: the behaviour one, emotional and their modification. The most important contribution of Feuerstein is the fact that he focused on the cognitive functions and their control processes. So, the aim of the educative interference is not to furnish to the child knowledge and new abilities. Attention focused on process and not on the results of the activity is the one that differentiate the Feuerstein theory to traditional intelligence tests.

Intelligence as a changeable thing

The each person intellectual level is the result of the interaction with the social environment, due to the learning experience. So, Feuerstein is different from Piaget, he is not agree with the cognitive development in successive stadies, for all people. The approach between them consists in the fact that they consider intelligence a process and not a measurable thing by psychometric tests. So, intelligence is a modifiable ability which permits to reach some adaptation levels bigger and more complex. So Feuerstein realized The Theory of Structural Cognitive Modificability. He explains the difference between "change" and "structural modification". The first concept reffer to changes limited in time and superficial which don't become a part of the cognitive structure of the subject. The modification implies an evolution of the whole cognitive system which leads to creation of new structures and new connections. One of the people's characteristic is the intrinsic tendence to evolution and permanent change. So, the cognitive system is considered an open system, which can't reach the stability and it is in interaction with the environment. The classical intelligence tests are criticized because they are about the cognitive potential of the student. It must be mentioned the fact that if something is not been accepted doesn't mean that the emotional communication with the subject with disability based on: empathy, respect, it refers to the risk of an passive attitude and renouncement. Sometimes the disable child's parents have as a basic goal the avoidance of some stressful situations for him. In this case the result is of an static, artificial circumstance

which doesn't stimulate the child in the direction of change and of the cognitive level evolution.

Feuerstein emphasized the fact that the human being is able to change himself also in the situation when he presents some deficiency. People cultural disadvantaged or those with disabilities are not able of a spontaneous modification, because they need an intensive and systematical intervention.

Feuerstein method is characterized by a strong impulse of action and operability. Feuerstein emphasizes the fact that the cognitive abilities potential is always possible apart from:

- age: even for the adults we can induce some structural changes in their cognitive system. Feuerstein is not agree with the idea of a "critical period" after that the disabled person can't develop a significative way of learning. He sustains the idea that the dynamic intelligence is a permanent process. The cognitive decline of the disabled person is caused by the lack of some educative interventions, which are specific for the adults and is not considered a very difficult situation. If the educative intervention is efficient also for adults we can't subevaluate the necessity of an early intervention. So when we are babies we have to valorify all the opportunities regarding the early intervention to ameliorate the quality of the person life. So the cognitive alteration of the persons with Sindrom Down is not due only to the specialists' passive attitude from this field, but also from the neurophysiological processes. Only by recognizing these causes and processes is possible a multidimensional intervention;

- disability etiology: many times the specialists manifest some incapacity when they face to some persons with austere organic deficiencies. Feuerstein sustains that in such circumstances it is possible an intervention for cognitive improvement.

- the gravity of the deficiency: in such a case we have to make some structural changes. All the educative methods and rehabilitation find their justification in the possibility of cognitive and behaviour potential of the subject. In Feuerstein method this possibility is confirmed. It is necessary to hesitate any potential risk that consisting in subevaluating the tipology of the deficiencies permitting an optimistic and miraculous attitude. In such circumstances the teacher and the parent can try any frustration feeling because the child's evolution wasn't been a fast and profound one as they expecting for. It is recommended to combine an optimistic attitude focused on the aim with the consciousness the limits and the problems regarding any disability.

Feuerstein considers the human being as a system made by components which are in a interaction: one change for a component has important effects for the others components of the system. For example, the development of the students motivation determines an improvement of the memory which also have repercussions for the self esteem and its control. The changes the Instrumental Improvement Program proposes are not superficial but appears at structural level, so they must encourage the development of some cognitive new charts through them they can interact with reality, in a flexible way.

3. The teachers' and specialists educative competence

The Feuerstein's instruments application by teachers and specialists implies a training and a development of some competences. The mediators theoretical beliefs must be in agreement with their competences and abilities. The educative intervention supposes the specialist must have some personal and professional abilities. A taxonomy of the abilities he needs in applying Feuerstein's instruments are:

The personal abilities:

- communicative abilities;
- problem solving and decision making;
- stress control;

The professional abilities:

- observing;
- schedule;
- verifying.

We can add some abilities according as some occupations, for example for the teachers we can add:

- expositive abilities;
- managerial abilities;
- the ability of motivating the students.

The teacher must be available to change himself forever, improving his cognitive and behaving abilities: only in this way he can adapt himself to each pupil. If not the pupil has to adapt himself to the international styles.

4. Self - control processes

The quality and change direction can't be previewed exactly at the beginning of the educative intervention such a situation can be due to the self-control ability of the cognitive system.

For example, in a solving problem strategy, at the beginning the pupil must be beware when he organizes informational dates. The important task consists in the entrainment of the attention and memory. Gradually the pupil will succeed to follow the steps of the solving problems algorithm faster and in a competent way, reducing the attention and the memory. In this way, some cognitive resources are free and the subject can lead them to the others actions, tasks.

Some rythmes of the structural method are improved and the generalization of learning is verified.

It is mentioned the fact that one of the biggest cognitive disabled pupils' problems is about the difficulties of a spontaneous generalization of learning when some specific interventions from the specialist are absent.

5. Conclusions

Learning Potential Assessment Device - LPAD, elaborated by R. Feuerstein, represents one of the actual and modern direction for the formative psychodiagnosis. The dynamic evaluation of the learning potential exceeds the classical psychometry, augmenting the subject's chances to succeed, guiding his activity, sustaining him when he has problems and letting him to elaborate concepts or procedures which are absent. The semnificative difference to traditional evaluation consists in considering each progress (even the minimum one), as a positive coefficient of a possible evolution. About the traditional tests the smallest subject's fail lead to a "shadow" of doubt regarding the future performance (Kopciowski Camerini, 2002, p. 35).

The Feuerstein method, supposes that the cognitive subject's reorganization to be the basic modality through which to obtain changes in all the others subsystems: behaviour, emotional, motivational. These changes could be reached only if the subject is implied in specific exercices. According to Feuerstein, this intervention improves the rythmes of the structural cognitive change.

The Instrumental Improvement Program implies the development of the potential, LPAD, and its change also.

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ASSESSMENT AND PREVENTION OF BRAILLE READING DISABILITIES

VASILE PREDA

ABSTRACT. The procedure used to evaluate and identify Braille reading disabilities involved two essential components: a three-task set, meant to help us identify the symptoms, and a fourth task for evaluating the reading technique by using a standard observation chart.

Based on the results of this research three personalized programmes were proposed: a) to facilitate the development of tactile-kinaesthetic abilities starting from pre-school age; b) to speed up the development of the two-handed Braille reading technique; c) to solve phonological deficit problems by encouraging the development of phonological awareness.

Key-words: *Braille letter, Braille reading technique, tactile-kinaesthetic abilities, Braille reading disabilities, phonological awareness, phonological deficit.*

ZUSAMMENFASSUNG. Einschätzung und Vorbeugung der Braille-Lesebehinderung. Das Verfahren, das für die Evaluation und die Identifizierung der Braille-Lesebehinderung verwendet wurde, umfasst zwei grundlegende Komponenten: eine dreiteilige Aufgabenstellung für die Identifizierung der Symptome und eine vierte Aufgabe für die Evaluation der Lesetechniken. Bei der Evaluation wurden standardmäßige Beobachtungsraster benutzt.

Anhand der Ergebnisse dieser Untersuchung wurden drei individuell angepasste Programme vorgeschlagen: a) das erste Programm zur Förderung der Entwicklung der taktisch-kinästhetischen Fähigkeiten schon ab dem Vorschulalter; b) das zweite Programm zur Beschleunigung der Entwicklung der Braille-Lesetechnik; c) das dritte Programm zur Bewältigung der Probleme, die von einem phonologischen Defizit verursacht werden, durch die Anregung der Entwicklung des phonologischen Bewusstseins.

Schlüsselwörter: *Braille-Buchstaben, Braille-Lesetechniken, taktisch-kinästhetische Fähigkeiten, Braille-Lesebehinderung, phonologischer Defizit, phonologisches Bewusstsein.*

1. Introduction

The procedure used to evaluate and identify Braille reading disabilities involved two essential components: a three-task set, meant to help us identify the symptoms, and a fourth task for evaluating the reading technique by using a standard observation chart.

The task set contained three different types of task, one for identifying the letters, the second for decoding the words, and the third for reading and understanding the paragraph. At the letter identification level problems occurred during perception or during cognitive processing. At word reading level three types of error occurred, learning to complete loss of meaning, to alteration of meaning, but also errors in recognition which did not alter the meaning of the word. At text reading level problems occurred either when a clause's subject and predicate were wrongly identified, or when the readers could not grasp the logical and pragmatic implications of the text.

2. The objectives of this paper are: assessing blind primary school pupils' Braille reading abilities and identifying their reading problems; determining the mechanism of identifying the Braille letter by verifying the patterns of template matching and by detecting functional features; determining the relationship between Braille reading disabilities and the phonological deficit.

Specifics objectives:

- 1) *to identify the blind pupils who have difficulties with Braille reading and writing;*
- 2) *to detect the types of errors in Braille reading;*
- 3) *to propose a pre-Braille training programme meant to develop tactile skills;*
- 4) *to propose a programme meant to develop phonological awareness.*

3. Participants:

The research was carried out with 44 blind 3rd and 4th grade pupils from the School for the Blind in Cluj-Napoca. The choice of subjects was made based on the fact that it is at this particular level that the Braille reading technique becomes automatic, though there still are pupils who face difficulties in Braille reading and writing.

4. Methods:

a) The observation method: observing the reading technique with the help of a chart in order to obtain information on: Braille reading skills, reading fluency, error typology, techniques for reading unknown words and pseudo-words.

b) The exercise method: as part of the pre-Braille training programme meant to develop tactile-kinaesthetic skills and as part of the programme meant to develop phonological awareness

5. Characteristics of Braille Reading Techniques and Error Typology

1. We started our data analysis with a careful consideration of some Braille reading characteristics: the ability to efficiently scan a vertical format of Braille dots, one-handed or two-handed reading, the number of fingers used, the amount of pressure applied on the Braille dots, the ability to follow the line of the Braille text, and regressive hand movements.

The ideal is said to be a two-handed reading technique with the help of four fingers (the index and the middle finger of both hands) with a suitable pressure on the Braille dots, function of the quality of the Braille text imprint, with no or very few regressive hand movements.

According to Sally Mangold (1982), the good Braille reader:

1. exhibits few regressive hand movements (either vertically or horizontally);
2. uses very little pressure when touching the Braille dots;
3. utilizes a two-handed reading technique in which the left hand locates the beginning of the next line, while the right hand finishes reading the previous line;
4. uses at least four fingers at all times;
5. demonstrates the ability to scan efficiently when reading both a vertical and a horizontal format;
6. demonstrates the ability to read letters accurately without confusing letters which are mirror images of other letters.

In the case of the blind pupils on whom our research was focused several patterns of finger-movements were identified:

1. *Two-handed reading: the pupil uses both hands complementarily, on the whole line:* we noticed that very few of the pupils who employ the two-handed technique use both index fingers for identifying letters. Usually one is used to identify the letters and the other to explore the tactile field, by moving it ahead of the reading finger or by following with it the index which perceives the letters and the words, so as to get feed-back on the identifications made. In most cases, even if both fingers were employed while reading, only one did the reading proper, while the other held the position on the text line.
2. *One-handed reading: a) the right hand reads and finds the next line; b) the left hand reads and finds the next line.*

Regressive hand movements slow down the reading speed, even though with some pupils they prove to be efficient in the self-correction of some letters or words. With others, regressive hand movements are inefficient, these pupils facing difficulties in Braille reading. Frequent loss of direction in following the rows of the text to be read also slows down the Braille reading speed.

Braille reading speed is higher in the case of readers who employ two-handed reading techniques, and they also have greater abilities of scanning both a horizontal Braille format and a vertical one. Moreover, these readers employ an efficient strategy of perceiving the distance between the words and of moving forward on the lines of the text.

6. Errors in Reading Braille Words

Three types of error were identified:

- a) Errors in recognition that **do not change the meaning** of the word;
- b) Errors in recognition that **change the meaning** of the word, leading to the pronunciation of a different word;
- c) Errors that lead to the **pronunciation of non-words**, causing **total loss of meaning**.

The error categories that clearly distinguish the good Braille readers from the weak ones ($t = 3,84$; $p < .05$) are: rotations, errors due to the technique of scanning a certain Braille format, simple additions, cognitive confusion, and errors due to the omission of certain Braille dots.

The above-mentioned problems in the identification of letters and words during Braille reading determined us to draw up and put into practice some error-prevention programmes as well as programmes for the improvement of Braille reading in the case of weaker pupils.

7. Prevention of Braille Reading Disabilities

7.1. Developing Tactile-Kinaesthetic Skills

The Developmental Programme of Tactile Perception and Braille Letter Recognition designed by Sally Mangold has proven to be efficient. This programme features exercises like the following:

- following **from left to right identical** symbols placed rather **close** to one another, with very little room in between;
- following **from left to right different** symbols placed rather **close** to one another, with very little room in between;
- following **from left to right identical symbols separated** by one or two spaces;
- following **from left to right different symbols separated** by one or two spaces;
- following **from top to bottom** (downwards) **identical symbols** placed rather **close** to one another, with very little room in between;
- following **from top to bottom** (downwards) **different symbols** placed rather **close** to one another, with very little room in between;
- following **from top to bottom** (downwards) **identical symbols separated** by one or two spaces;
- following **from top to bottom** (downwards) **different symbols separated** by one or two spaces.

The use of the above mentioned exercises with weak Braille readers lead to an improved reading speed, to more accurate reading and to a better understanding of the words and of the text. The difference between the pre-test and the post-test was significant ($t = 3,79$; $p < .05$).

On the other hand, the results of this study emphasized the need to take into account the role of early education in ensuring that blind children acquire the necessary pre-acquisition skills required by Braille reading and writing. Thus, early intervention facilitates the prevention of Braille reading disabilities.

Consequently, in order to develop the tactile-kinaesthetic skills of pre-school blind children in their final kindergarten year and of first and second grade pupils, under our supervision (Preda, 2004), Roxana Cziker, special education teacher, and Silviu Vanda, blind teacher, have drawn up 11 volumes of tactile images comprising:

the vertical line; the horizontal line; the oblique line; the curved line; combinations of vertical and horizontal lines (the square and the rectangle); various geometrical figures; the fundamental group and configurations of dots; brief instructions regarding the formation of some tactile images (the house, the boat, the car); the identification of missing tactile images; the identification of pairs of tactile images; the identification from memory of identical images (an adaptation in tactile images of *The Geometrical Figures Recognition Test* developed by André Rey).

7.2. Types of Exercises for the Development of Phonological Awareness

The interrelationship of reading and phonological awareness requires a view of ***phonological awareness as a central element of reading*** rather than a merely simple pre-requisite of reading. Phonological awareness is involved especially in the development of *expressive loud reading*, linked to the use of **appropriate stress patterns** and of a **suitable intonation**. Moreover, in the case of Romanian students phonological awareness is essential for the acquisition of reading and writing skills in English and French. The reading process facilitates the development of reflexive phonological awareness which, in turn, enhances reading abilities.

The exercises used as part of the phonological awareness development programme require two different types of phonemic knowledge: a) computational phonemic knowledge based on simple tasks of phonemic synthesis; b) reflexive phonemic knowledge, which refers to the ability to consciously use the phonemes.

These were the oral and written exercises in the programme for the development of phonological awareness:

- a) Exercises involving the detection of the word's initial consonant or consonantal group (oral);
- b) Exercises involving words that rhyme (written);
- c) Matching pairs of words that rhyme (oral);
- d) Associating different phonemes to form words (written);
- e) Segmentation of words into the appropriate phonemes (oral);
- f) Exercises involving the elimination of initial or final phonemes (oral);
- g) Chorus repetition and individual recording, in writing, of a stanza or of a riddle dictated by the teacher (oral and written).

These types of exercises are based on the ones featured in *the phonological awareness development programmes* and used in various experimental activities with blind pupils (Maclean, Bryant, Bradley, 1987; Webster, Plante, Convillion, 1997; Monson, Bowen, 2008).

In order to assess the effects of the training programme aiming towards the development of phonological awareness comparative methods were used for sample pairs of pupils working on tasks such as word recognition, text reading and text comprehension. The word recognition task yielded significant differences between the pre-test stage and the post-test stage both on the whole ($t = 3,81$; $p < .05$), and on group level in the case of pupils with poor Braille-reading performance ($t = 3,99$; $p < .05$).

The phonological awareness development programme has proven its efficiency in reducing the number of errors in word recognition in the case of both good Braille-readers and weaker ones. Thus, both groups of pupils yielded fewer false identifications and the frequency of non-word readings decreased. Consequently, the Braille-text reading comprehension of blind pupils increased and improved significantly.

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THE REPERCUSSIONS OF INADEQUATE VELOPHARYNGEAL FUNCTIONING (VPI) ON CHILDREN'S SPEECH

MARIA ANCA, IOANA CLAUDIA POPA

ABSTRACT. Although the best-known modifications of resonance are owed to VPI in conjunction with cleft palate, in speech therapy there are often also other situations, in which VPI is accompanied by diverse symptoms that affect the quality and intelligibility of pronunciation and speech. In the following we present a case by means of which we would like to reveal the existing relationship between the complex examination and the rehabilitation intervention programme.

Key words: *Velopharyngeal insufficiency (VPI), pronunciation disorders, speech disorders, hypernasalisation, phonetic inventory, compensatory articulation movements.*

ZUSAMMENFASSUNG. Auch wenn die am häufigsten auftretenden Veränderungen der Resonanz eine Folge der velopharyngealen Insuffizienz (VPI) als Resultat von Gaumenspalten sind, begegnet man in der logopädischen Praxis auch anderen Situationen, in denen die VPI von verschiedenen Symptomen begleitet wird, welche die Qualität und Verständlichkeit der Aussprache und der Sprache beeinträchtigen. Im Folgenden stellen wir einen Fall vor, anhand dessen wir die Beziehung zwischen der komplexen Untersuchung und dem Rehabilitationsprogramm beschreiben möchten.

Schlüsselwörter: *Velopharyngeale Insuffizienz (VPI), Aussprachestörungen, Sprachstörungen, Hypernasalität, phonetisches Inventar, kompensierende Artikulationsbewegungen.*

There are diverse conditions that determine velopharyngeal inadequacy, the choice of the surgical procedure and the speech therapy specially adapted to children with VPI, who show hyper-nasal speech and air loss through the nose during the speaking process.

According to Peterson-Falzone et al (2006, p. 17) the most frequent cause of VPI is the cleft palate (before surgery and sometimes also after it, if some difficulties persist), but there are nevertheless also other less frequent causes that affect speech, i.e. anatomic and neurologic causes or hearing loss.

In figure 1 we present the classification given by Peterson-Falzone et al (2006, p. 18) that reveals the most important causes for VPI both in the presence as well as in the absence of cleft palate.

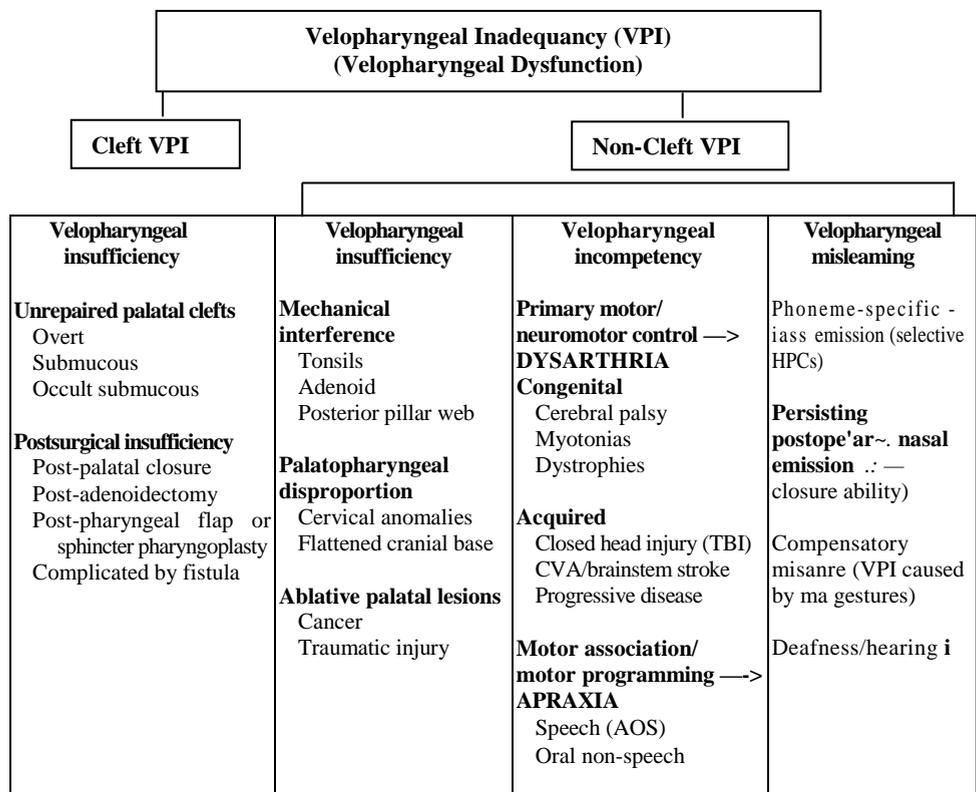


Fig. 1. Classification of velopharyngeal inadequacies.
(Modified from Trost-Cardamone JE: *Cleft Palate* } 26: 68-70, 1989.)
HPCs, High pressure consonants; TBI, traumatic brain injury;
CVA, cerebrovascular accident; AOS, apraxia of speech.

The impact of VPI on speech

According to Guțu (1975, p. 311-315) the nasalization of a large number of oral sounds (rhinolalia), the incorrect pronunciation of sounds due to a modified articulation basis (dyslalia), phonetic insufficiency (rhinophonia) and the accompanying rhythm disturbances all affect the intelligibility of speech.

The insufficient tone-controlling activity of the soft palate deforms vowels by means of nasal resonance, whereas the insufficient control on the air flow deforms the consonants due to the insufficient air pressure inside the oral cavity. Guțu, 1975

(p. 326-329), Moldovan, 2006 (p. 117-121) and Tomescu, 1996 (p. 42-52) describe the specific features of the pronunciation of vowels and consonants in children with palatolalia.

Although the particularities of phonetic deformities can be established only after the speech analysis of every case, there are some categories of VPI effects that determine these particularities:

- particularities of speech resonance as a consequence of a disturbed balance between oral and nasal resonance;

- hypernasalisation, hyponasalisation, mixed nasalisation, cul-de-sac resonance.

All these lead to particular speech patterns, in which vicariant sounds appear due to compensatory articulation movements, one of the characteristics being the displacement of the articulation basis. In the case of fricative consonants, especially of „s” and „ş”, there have been noted the most serious deformations of pronunciation due to their orthophonic particularities; these disturbances can be revealed by means of spectrograms. As a result of the displacement of the articulation basis, explosive consonants are altered or replaced with glottal or pharyngeal stops.

Research description

We selected six patients of the Cranio-maxillo-facial Surgery Clinic No. II of Cluj-Napoca, Romania. Based on their interviews and anamneses, we tried to identify the factors that might have a positive and negative influence on their social insertion (at school level or at the social and professional level). We formulated a plan of rehabilitation measurements for each case, focussing especially on the medical and the speech therapy. The anamnesis and the clinical interview were structured according to the examples and indications of Oprişiu (1973) and Burlibaşa (1999), and the gathered information was used for the completion of medical data. The psychopedagogic and complex logopedic examination was structured based on logopedic records and on the descriptions of the examinations of language disturbances in children elaborated by Guţu (1975), Jurcău (1989), Vrăsmaş (1997) and Moldovan (2006), which led to the elaboration of the pronunciation and speech patterns of the studied patients. In the following we present one of the studied cases by means of which we would like to show the existing relationship between the data obtained as a result of the complex examination and the elaboration of the individual plan of rehabilitation intervention.

Case presentation

Subject No. 5, female, five and a half years old, was born in Cluj-Napoca. Her parents hold academic degrees. The girl also has a younger brother. The birth process went normal and there are no other persons with malformities in her family. The completion of anamnestic data was made after interviewing her mother, who declared that the girl had started speaking after the age of three, when she attended kindergarten for a year. She is a child, who adapts easily to new situations, and she is

sociable. The child permanently wears a small hat for masking the facial asymmetry. Although her mother admits the difficulties that were faced by both parents after the child was born, when they learned about the diagnosis, and then during the period of medical investigations and surgical treatment, she still has an optimistic attitude fuelled by the good postoperative evolution and the psychomotoric development that reduced the discrepancy between the girl's developmental stage and her chronologic age.

Medical diagnosis: Goldenhar syndrome (hemifacial hypoplasia or microsomia), controlled elongation of the ascendent ramus of the left mandible.

Left ear: deformed pavillion without auditive conduct, ear plastic surgery will follow.

Right ear: The girl was examined by using pure tone audiometry (PTA). The audiogramme must be repeated, because the obtained data is not exact due to psychomotoric agitation and to the spare behavioural responses to auditive stimulation. We are suspecting transmission hypoacusia due to repeated otitis.

The aspects of psychomotoric development were examined with the Sans Paroles Test (Borel-Maissy) that revealed a level corresponding to the mental age of about 4-4,5 years, her results being affected by psychomotoric agitation and attention disturbances. The girl exhibits the tendency to execute tasks rapidly and superficially, what affects the quality and precision of the execution. The patient went through the items of the test in less than 15 minutes, whereas the majority of the children with the chronological age of five need about 20-30 minutes to go through it. Among the most evident difficulties were those regarding spacial coordination and organisation, which were revealed by several items, e.g. constructions of cubes after a tridimensional model or based on a bidimensional pattern (drawings).

The tests that investigated the phonematic capacity indicated a disturbance of the auditive attention and also a weak capacity of auditive discrimination, which is easy to explain based on the one-ear hearing, the possible diminuation of the hearing capacity in the right ear and the general behaviour.

Her voice is of low intensity and with a strong rinolalic feature, without any melody (broken voice), what leads to the general impression of unclarity. The pronunciation of oral vowels and consonants is accompanied by a remarkable nasalisation.

The pronunciation of the sonants is disturbed: "l" is unclear, fade, and the pronunciation of "r" is made with slight vibrations (a monovibrant "r" accompanied by nasalisation, what also reduces the intensity of the sound). In the case of the posterior explosive consonants "c" and "g", due to the general intense nasalisation and their articulation basis being velar and posterolingual, the contrast between voiced and voiceless is diminished and they cannot be distinguished during pronunciation also due to a diminished explosion. The lack of contrast between voiced and voiceless sounds and, as a consequence, the absence of even a minimal distinction is also seen for the couple of fricatives č-š, although their articulation basis is a central one; the nasal air loss leads to the diminuation of the distinct features. Pronunciation

disturbances occur also in labiodental, interdental and bilabial consonants. The general impression was that of a child trying to learn to speak and who does not know yet how to pronounce certain sounds, hesitating in certain cases and in the others managing only an unprecise articulation. During the administration of the tests for examining the articulation and the speech of the patient, she was quite reticent and followed instructions only after repeated sollicitations. The vowels are pronounced in a prolonged way, like a child who needs attention. The vocabulary she uses is quite poor for the age of five.

In establishing rehabilitation measurements, we considered the indications of Zajac, D. J. (2004), Stengelhofen, J. (1989), Bartoszesky, L. E., Homeier, B. P. (2005), based on which the following multidisciplinary plan of rehabilitation intervention was elaborated:

Medical measurements:

- continuation of the surgical treatment: orthognathic bimaxillar surgery;
- commencement of the orthodontic treatment for teeth aligning, harmonisation of teeth articulation;
- left ear plastic surgery:
 - costal cartilage transplant for ear reconstruction;
 - ear modelling;
 - corrections.

Psychopedagogic and logopedic measurements:

- audiometric examination and elaboration of the audiogramme for the right ear;
- retesting of phonematic capacity and systematical exercises for the improvement of attention and auditive memory as well as for exercising the capacity of phonematic discrimination;
- psychomotoric education:
 - consolidation of the body scheme and of body symmetry;
 - utilisation of the concepts of form, size and colour and their differentiation;
 - spacial orientation and structuration within a large and also a narrow space.
- therapy of language disturbances:
 - diminuation of the negative attitude towards speaking;
 - exercises for the development of general motricity;
 - exercises for the development of the fine manual and digital motricity (object grabbing, constructions of cubes, gathering textile and rubber balls, puzzles, etc.);
 - exercises for educating correct non-verbal and verbal respiration with a clear differentiation between oral and nasal respiration, control of the expiratory air wave and the progressive implication of the soft veil;

- exercises for the improvement of the phonoarticulatory movements, focussing on the labial, lingual and soft veil movements;
- correction of the disturbed sounds (emission, consolidation, differentiation, automatisation);
- language acquisition and activation;
- rhythm and expressivity exercises.

For monitoring the status of the participant’s pronunciation, it is advised to use a table that, after its completion, will contain a „phonetic inventory” (see Fig. 2).

		According to the regions where the consonants are articulated or according to the contact points of the tongue with the palate during the articulation of consonants												
		Bilabial		Labiodental		Dental (Alveolar)		Prepalatal		Hard palate		Soft palate		Glottis
		Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless
So-nants	Nasal													
	Lateral													
	Vibrant													
Non-so-nants	After the type of articulation													
	Constrictive													
	Occlusive													
	Semiocclusive													

Fig. 2. – Phonetic inventory: * adaptation after Grunwell, Pamela, 1985, *Phonetic Inventory*, and Jurcău, E., Jurcău, N., 1999, *Classification of the Consonants of the Romanian Language*.

In this table, for the phonetic transcription of the pronunciation, including that of persons with VPI, there can be used either the international phonetic alphabet (see fig. 3) or the symbols suggested by **Peterson-Falzone** et all (2006, p. 32) for recording the pronunciation of substitution sounds often owed to the displacement of the articulation basis (see fig. 4).

Glottal stop	ʔ	In case the child produces a syllable that starts a glottal stop,
Pharyngeal fricative	ʕ	
Voiceless labial-velar approximant	M	
Voiced labial-velar approximant	W	
Strong articulation		f
Weak articulation	_y	
Velopharyngeal fricative	fɨ	
Nasal escape	_;	
Silent articulation	()	(f)
Voiceless	°	°
Voiced	˘	˘
Labialised	W	t W
Palatalised	^j sau ˘	t ^j
Velarised	V	t ^v
Pre-voicing	˘	˘z
Post-voicing	˘	z˘
Partial voicing	(˘)	
Pre-aspiration	h	^h P

Fig. 3. The International Phonetic Alphabet (Revised to 2005).

Compensatory Misarticulation	Compensatory Articulations and		Target Phones They Replace	
	Phonetic Symbol		Target Phone Substitutions and Co-productions	
	Unvoiced	Voiced	Substitutions	Co-productions
Glottal stop		ʔ	Any pressure consonant (typically stops)	Any pressure consonant: (typically stops)
Pharyngeal affricate	ʔʕ	ʔʕ	Oral affricates	Affricates
Pharyngeal fricative	ʕ	ɦ	Sibilant fricatives ± oral affricates	Sibilant fricatives, affricates
Pharyngeal stop		i	/k/, /g/	None
Posterior nasal fricative (velopharyngeal fricative/"snort")	A		Any pressure consonant	Any pressure consonant
Nasal fricative*	mnq		Sibilant fricatives ± oral stops	None
Mid-dorsum palatal stop	l		/t/, /d/, /k/, /g/	None

Fig. 4. Substitution sounds caused by the compensating articulation movements.

Modified from Peterson-Falzone SJ, Hardin-Jones MA, Karnell MJ: *Cleft palate speech* (3rd ed). St Louis: Mosby, 2001. *Throughout this text, we have used the symbol /~/ to indicate both hypernasality and nasal air emission; when placed above a vowel or oral sonorant, it indicates hypernasality; when placed above a high pressure consonant, it indicates nasal air emission.

Implication of the parents in the complex medical and psychopedagogic rehabilitation programme of the child:

- In a first stage, the mother will receive information regarding the actual situation and also the plan of intervention, including details regarding the complex treatment of the child;
- Sollicitation of the agreement and of the implication of the parents in the therapy programme of the language disturbances by assisting logopedic therapy, continuation of logopedic exercises at home and monitoring of verbal behaviour and pronunciation status of the child.
- Participation in mutual help group meetings for the parents of children with malformities and clefts. These meetings should consists of discussions and short lectures (given by the members of the therapy team or even by parents) meant to analyze problems that are of high interest to the audience, and to answer the diverse questions formulated by the parents of the children with such conditions.

Conclusions and perspectives

Although the best-known modifications of resonance are owed to VPI as a result of cleft palate, in speech therapy there are often also other situations, in which VPI is accompanied by diverse symptoms that affect the quality and intelligibility of pronunciation and speech. A control element of the resonance changes is hearing, which needs to be completed by objective analyses of the taped speech of persons with VPI. One of the objective means is that of spectrographic analysis that allows the visualisation of the formants and their modifications. This may lead to the awareness of VPI symptoms not only for the therapist but also for the patient, and it also gives the possibility of monitoring the evolution of pronunciation and speech.

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INDIVIDUALISED AND FUNCTIONAL ASSESSMENT AND DEVELOPMENT OF COMMUNICATION. A CASE STUDY

ANDREA HATHAZI

ABSTRACT. The present research is the result of the years of the professional experiences in the education and intervention with children with deafblindness. The preoccupations in the domain of assessment and development of communication at children with deafblindness has appeared as an interest of the practitioner in achieving results in the intervention approaches. These referred to maximising the learning and development for this category of disability and offering the teachers examples of good practices, but also the instruments they need to optimise the strategies used in the learning but also corrective- compensatory process. The main interests referred to identifying the ways to improve assessment and development strategies in communication at children with deafblindness, in order to assure a better inclusion in the community, towards independence in personal interactions and relationships.

Keywords: *functional assessment, communication, speech and language impairments, individualized communication program.*

ZUSAMMENFASSUNG. Die vorliegende Forschungsarbeit ist das Ergebnis jahrelanger Facherfahrung mit der Ausbildung und dem Eingriff bei höresehbehinderten Kindern. Die Beschäftigung mit dem Bereich der Auswertung und Entwicklung von Kommunikation bei höresehbehinderte Kinder n ist die Folge der Interesse der Praktikantin um Ergebnisbe bei den Eingriffen aufzuzeigen. Diese bezogen sich auf die Maximalisierung der Lern- und Entwicklungsmöglichkeiten für diese Art Behinderungen. Weiterhin darauf, den Lehrern Vorbilde von guten Praktiken und Mitteln zur Optimalisierung der Stragetien im Ramen vom erziehrisch-korrigierend und ausgleichenden Arbeitsvorgängen zur Ferfügung zu stellen. Hauptinteressen bedeuteten die Optimalisierungsmethoden der Auswertungs- und Entwicklungsstrategien für die Kommunikation bei höresehbehinderten Kindern, so dass eine gute Integration in die Gemeenschaft deren Mitglied sie sind, versichert werden kann. Damit wird eine Selbstständigkeit auf der Ebene der sozialen Interaktion erzielt.

The assessment of sensory, communicative, social and cognitive functioning is extremely difficult in defablindness (Chen, 1988). This is primarily because of deficient communication skills, lack of language, the lack of experience and information of the assessors concerning communicative behaviors, intentionality and interpretation, general and specific functioning of the child, alternative communication modalities and systems, aspects of feed-back and motivation. This

is even more difficult if there are multiple associated impairments that are not assessed by members of a multidisciplinary team who have the specialised expertise and who can together elaborate a profile of the child.

The complexity of deafblindness makes it almost impossible to use standardized tests, although in some situations tests were used but only after adapting the items, administration modalities, recording and interpretation of results. The assessment of the development level and functional assessment represent two other types of assessment, more frequently used in the domain of deafblindness. Functional assessment is about basic abilities, adaptation to social life, development of self- help skills, personal abilities, orientation and mobility. This assessment can be carried out in schools and day centers in order to develop intervention strategies to encourage participation of the child to activities in the learning process, but also to the development of social abilities. The child is observed in his familiar environment, at home or at schools, carrying out activities. Observation files, ability inventories and interviews are used. The most important aspect is qualitative interpretation of the individual results. Systematic observation carried out for a long period of time emphasizes the progress achieved by the child in different development areas.

Communication presents some unique assessment problems. First, communication skills are very related to cognitive and social skills, so these aspects are approached inevitably almost at the same time (Chen, 1988). Cognitive development dictates the content of communication.

Symbolic communication allows a greater flexibility and the approach of conversational themes that are present or absent, contextualised or de-contextualised, past, present and future. If a child cannot make sense of his or her environment, then that child cannot generate communicative content to share with another person (Chen, 1988). Social development provides the motivation to communicate but also the social network that provides the communication partners.

The research- action has as an aim the development, implementation and evaluation of the efficiency of some individualised programs in the development of communication at children with deafblindness in the view of developing functional communication skills, their use in the educational context, and social context, assuring communicational and social independence of the child with deafblindness.

Objectives and hypotheses of research

General objective

The evaluation of the efficiency of individualised communication program emphasized through the longitudinal case study.

Specific objectives

1. Identification of level of development of communication with specific instruments.

2. Evaluation of efficiency of strategies and specific techniques used in the development of communication.

3. Developing an individualised communication program, with the identifying of communication levels and strategies that determine the development from the pre-symbolic communication to the level of symbolic communication.

Hypothesis of the research

1. The use of a individualised functional assessment plan determines the identifying of techniques to develop communication skills at children with deafblindness.

2. The implementation of the approach and methodology of total communication in the intervention at children with deafblindness determines the acquisition of functional communication skills.

3. The continuous and individualised monitoring of communication development through the method of systematic observation assures the achievement of objectives, but also the identification of difficulties and obstacles in the using of intervention programs.

The research method is the longitudinal case study and in the process of assessment the following instruments were used:

1. Callier Azusa developmental scale (G edition) – the domain of Cognition, Communication and Language

2. Portage scale- Language

3. Manchester Pragmatic Profile

4. Communication development Profile – longitudinal assessment

5. Team Assessment form of communication

6. Abilities of the child form

7. Chart of needs

8. Receptive communication map

9. Expressive communication map

10. Observation forms of communication

The case study presents functional assessment modalities, establishing the level of communication development, objectives, strategies and specific techniques, using the resources comprised in the individualised intervention plan, evaluating the efficiency of the monitoring program and continuous, dynamic and formative assessment, total communication being considered the most efficient approach in the development of communication.

I. Personal and family data

MP is born on the 29th of May 1992 in Salicea, Cluj county. She comes from an organised family, formed by the parents and nine children, MP being the 11th child, two children being deceased. The socio-economic status of the family is above average, the relationship between the members of the family are harmonious and the attitude of the family towards the impairment of the child is of a highly

protective one. The parents are interested, they are open to cooperation with the intervention staff.

II. Diagnosis

MP was born prematurely at 7 ½ months, with cerebral hemorrhage and asphyxia, G=2600, h=48cm, Apgar score 7.

Diagnosis: cerebral palsy, visual impairment, hearing impairment, epilepsy, dysarthria, language disorder.

Ophthalmological diagnosis: convergent strabismus, horizontal pendular nystagmus.

Audiological diagnosis: mild hearing impairment

Presents acute respiratory infections, delayed motor acquisitions.

Educational situation: in the first four years she was included in a class in the School for the Visually Impaired in Cluj Napoca where she followed the National Curriculum. Because of the learning difficulties that she presented, at the recommendation of the special education teacher and the speech therapist, she was transferred to the special unit for deafblind children, where he is able now to work at his own pace, with specific methods and strategies. His state of health is good, at the present he takes medicine for the convulsive syndrome.

III. The aim of this case study is to evaluate the initial level of communication, the identification of the communication areas in which intervention is necessary, the identification of the systems of communication that are going to be learned and used actively, the development of the individualised programme and finally the assessment of its efficiency.

IV. Initial assessment

In the process of initial assessment a development profile was elaborated using the information that was obtained after applying the following assessment tools:

- Developmental Scale Callier Azusa
- Manchester Pragmatic Profile
- Oregon Inventory
- Map of Needs
- Receptive Communication Map
- Expressive Communication Map
- Functional Assessment Sheets
- Inventory of longitudinal assessment of communication

Callier Azusa Developmental Scale

In the domain of cognitive development MP anticipates a common event using visual, auditory, tactile indices, can differentiate objects by size, shows curiosity

towards objects, exploring them actively and using new modalities to play with them uses a variety of objects understanding their function, uses gestures, vocalisations and a limited number of signs to represent objects or activities, imitates new behaviors or activities after a longer period of time, plays imaginary games. In order to be used the object must be in the child's functional visual field, knows that an image represents a real object, even if the representation of the object differs as dimension and colour to the real object, identifies the difference in size of several objects that MP uses in play. Identifies the resources necessary for an activity, carries out activities after a set of images, indicates events that recently happened using signs, images and gestures.

In the area of receptive communication MP understands the verbal messages, follows two successive instructions, understands questions that start with what, where, why and who.

In the area of receptive communication MP can name objects, uses imaginary game using objects to represent other objects or reproducing activities that are usually used in a different context, combines two words, signs or gestures, is interested in learning new words. Development of speech: uses 50 words actively, draws attention by vocalising.

The receptive language is superior to the expressive language. The vocabulary is poor and reduced in comparison to age. The level of language development was identified around the age of 3,5, with a higher limit of the age of 7 at the task of naming colours, and the inferior limit of 3 at the tasks of filling in the gaps and antonyms.

Manchester pragmatic profile

Transmitting intentions: draws attention on self and an event, action, object, person, draws attention verbally and nonverbally in order to communicate, asks for information, asks the repetition of the event, refuses an action, event or task if doesn't think that can succeed, protests that can be convinced, greets, offers information of self, events and persons, offers help, adjusts social contact and conversation.

Social organisation of communication: integrates attention from a person to an object, involves in joint attention, draws attention before communication, initiates communication and conversation, regulates nonverbally and verbally a misunderstanding, offers feed-back, asks for explanations and repetition of message.

Presuppositions: is aware of the needs of the communication partner, content and previous conversation, adapts communication to context and partner of communication, understands the effect of communication on others, is aware of different aspects of communication: politeness, proximity to the partner of communication and shared experience with him.

Map of needs

The most significant need of MP is to develop receptive and expressive communication skills, that will also encourage the acquisition of necessary

knowledge for better school results. The adaptation of the learning environment is necessary, the structuring of daily programme, to increase control and safety, to encourage the development of cognitive abilities. The biggest challenge of MP is the development of cognitive abilities, to form concepts that MP can operate with and to form strategies of solving problems. Another challenge is to adapt the curriculum to the learning and communication needs. The decrease of the effects of disartria is another thing to consider in speech therapy programmes.

The map of social support

Family and school are for MP the main referenc for the social and personal development. Brothers and sisters spoil him and he is in the centre of attention. He attaches quickly and presents good social skills, initiates and maintains interactions. At school he is attached to staff and wants to be in the center of attention. The support services that MP beneficiates of are speech therapy and physiotherapy for the development of general and fine motricity. Hydrotherapy is reccommended, but is difficult to achieve, even if the activities in water would be effective for the motor development, but also for the development of communication and interaction. Medical services and the cooperation with the neurologist are important for the control of the convulsive syndrome.

Oregon Inventory

In the cognitive domain the child presents general concepts such as, telling his name, understanding yesterday, today, tomorrow, saying the days of the week, knowing body components, spacial concepts, sorts 4-5 objects according to a criteria length, height, width, knows numbers in the range 0-9, operates within this interval, knows letters of the alphabet A,B,M,C,N,E,U,I.

Visual functioning: draws vertical and horizontal lines, copies the circle and square, associates similar images, names 5 colours, and completes a puzzle of 4-6 pieces.

Fine motricity: uses the left hand with predilection to complete tasks, tears up paper, cuts with scissors, plays with dough, with a difficulty in using fingers in apprehension.

General motricity: goes up and goes down the stairs alternating the feet, jumps on both feet, jumps back and forth.

Language: imitates sounds, uses word with significance, responds to questions using gestures, controls the intensity of voice and uses onomatopoeias.

Social development: hugs and gets closer to a familiar person, plays with 2-3 children, but prefers adults, has favourite animals, follows the rules of a group play, works alone in a favourite activity for 10-15 minutes, asks permission to have objects, consoles upset persons.

Daily living skills: he is independent in eating and dressing cannot use

buttons and zippers, can make his own bed, insists on completing tasks on his own.

The results of the Oregon inventory situates MP around the age of 5-6, higher results in the cognitive area and inferior result in the area of fine motoricity around the age of 4.

Map of receptive communication

The map of receptive communication shows that MP understands speech but the messages must be repeated. Significance is assured by gestures, tactile indices and objects. The images and signs permit a better integration of information, so these will be the next objectives.

Map of expressive communication

Speech and writing, even if they are formed as abilities, they are deficient and messages must be transmitted using visual support, such as images, objects, visual calendars, signs with the aim of total communication.

V. Intervention plan

The individualised intervention plan focuses on the development of communication skills by the introduction of symbols. In this view the intervention plan consists of several stages: the establishment of a significant environment, the identification of interests and needs, the description of interaction and communication intent, assessment procedures, learning symbols and actively using them, using visual calendars in school activities.

The individualized intervention plan contains objectives and identifies the activities and the resources that determine the development of communication, severely affected by the combination of severe hearing and visual loss. The intervention strategies refer to:

- Communication forms (objects, gestures, signs, tactile indices);
- Social and functional aspects (request, refusal) and social interactions (realising the attachment to interveners, initiating interactions, maintaining joint attention, turn-taking);
- Implementing the use of objects of reference and calendar systems, learning the routines and establishing relationships with the interveners (Chen, 2000).

The most efficient modality to develop communication is within daily activities, natural contexts in which the child engages. The environment was structured to offer communication opportunities, or using attractive materials that motivate the implication in activities and tasks that become significant.

The activity that is chosen for the child lasts at the beginning around 10 minutes, but in time it gets longer for about 20 minutes. The second stage is about the identification of needs and interests of the child. In this way the favourite

activities are identified these being used as starting point in communication, being real opportunities.

The particularities of interaction are observed, the modality in which the dialogue is initiated concerning the use of objects and resources, but also the modality in which the interaction between the child and adult is established, the intervention being individualised. The general goal of observation is to obtain examples of the child's actions and reactions, capabilities, participation and challenges in typical learning and social situations. Observations are conducted to focus on specific areas of intervention (e.g., social interaction with peers, participation in classroom learning activities, ability to express needs).

The next stage consists in alternation of the role of receiving and expressing communication. The teacher will show an object or an image to the child asking him to name them or the teacher will name them and the child must indicate correctly. The indices that the child need are noted down, that means the visual, auditory and tactile indices. Feed-back is offered throughout the whole process. The assessment is realised using assessment inventories or checklists using the method of observation. The symbols are presented for each of the activities included in the previous stage. Every symbol will represent an activity. For MP symbols are used to represent the activities from the daily schedule. We will start with more symbols such as, a magnet letter for language, a magnet number for mathematics, a tape for music, a paintbrush for drawing. The symbols are used firstly within the activities, and then distancing is encouraged and the objects attached to cards are used within the daily schedule.

After a period of time the objects are replaced with images that represent activities and become parte of daily calendar. The use of calendar is an opportunity for communication and determins the acquisition of concepts of temporal and spatial structure and organisation. Starting with the daily calendar, the number of cards with images increses and different categories are used such as activities, fruits, toys, food items. Communication becomes more fluent and rapid in satisfying needs, and the child is not only a passive listener.

The images are concrete and realise more easily tha transmission of the message, these are accessible to the child and offers an dimediate satisfaction. The feeling of control on the environement is developped, the images becoming an instrument that the child uses every time he wants or needs. The presentation of images is always associated with speech.

The total communication approach, by identification and use according to context and the child's need of a system of communication, its association with other systems that could detrmine the increase of level of representation and use of symbols, intentionality that represents a factor of success of the plan. The need of anticipation and control is realised by using intentionally the modalities of communication with effect on the communication partner and upon the environment that becomes predictable. The encouragement of any initiative of

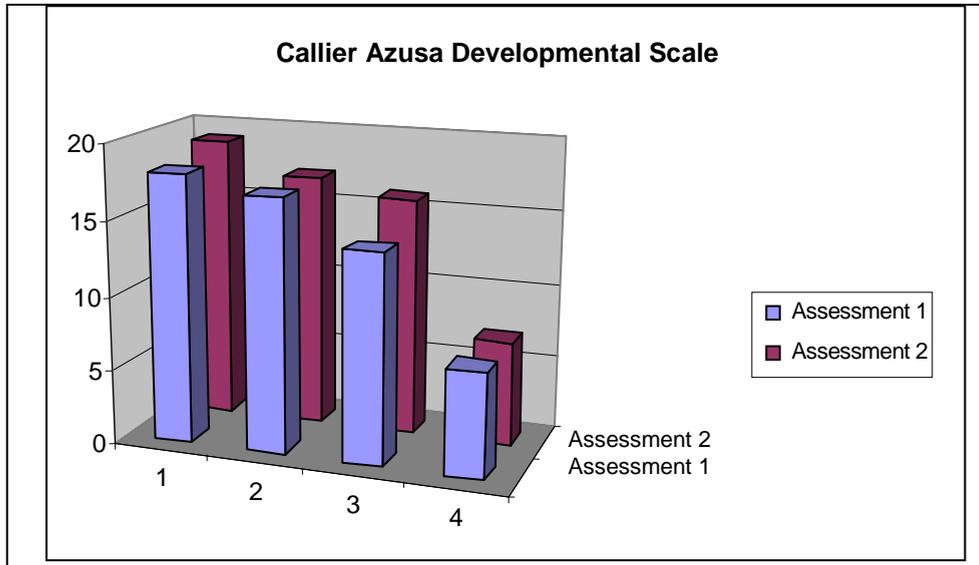
communication realised by the child is important, offering positive reinforcements and confirmations of communication trials so that motivation will be developed and the understanding of achieving dialogue between the partners of communication.

VI. Final assessment

Longitudinal communication inventory. She responds to three verbal instructions that are associated with signs and images, uses speech, but sometimes communicates through physical manipulation, uses signs and gestures to sustain the message and obtains what he wants, presents instrumental abilities of reading and writing, even if he needs one to one support, confirmation of answers and trial and error strategies. She makes sentences of two- three words, these are repeated by the adult showing that he or she understood. The grammar structures that he uses are simple, formed by a noun and a verb or noun and an adjective. Responds to questions that begin with what, who, where, why, when, whose. Uses vocalisations to draw attention, the pronunciation of the words is deficient, people who are not familiar will give significance to the words that he uses, he writes his name, name of the parents, staff and colleagues, uses visual calendar, identifies images- symbols for familiar objects and names them, initiates and maintains dialogue, reads printed words, does not read handwriting, verbalises images from a book, initiates communication for conversation and company.

The Callier Azusa Developmental Scale evidences the following progresses in development: in the domain of cognitive development he demonstrates the conservation of number, understands that a group of objects can be sorted on the basis of more than one characteristics, orders more items in a series. In receptive communication the level of development is the same. In expressive communication he presents an oral or sign vocabulary of 50 words or signs that are used spontaneously and adequately, expresses refusal using the word „no”, uses own name when refers to own actions, needs or feelings. Development of speech is at the same level of development.

The graphical representation of the recorded acquisitions evidences the progress in the domains of cognitive development, receptive and expressive communication, but also stagnation in the development of speech. The observation on communication shows that he initiates and establishes communicative relationships, expresses needs and desires, shows happiness at the appearance of a familiar person and tries to draw attention, presents a reaction of anticipation and directs everyone around on what will happen, effectuates the sequence that follows in an activity even if verbal indices are not given, knows the sequences of a routine, uses images to indicate activities that he wants to carry out, responds to a verbal instruction, imitates sounds, gestures and movements, reacts when hears own name, communicates using images, language, uses writing in communication, uses one word sentences, in some contexts associates two words, responds to questions that start with who, what, where, how, when and why, anticipates verbally an event that will take place, reads and writes words.



Portage developmental scale

In the domain of language and communication, MP respond nonverbally to simple questions, names correctly familiar objects, but pronunciation is deficient due to disarthria, reacts to words pronounced by others by vocalising, offers objects or indicates them when asked, shows images when she is asked, knows body concepts, says name when she is asked, associates words with gestures to express needs and interests, responds with yes and no, does not use the plural form of the words, uses this, that, identify picture that does not belong to a group, asks about the sense of the words that he is not familiar with.

The map of receptive communication indicates that he understands verbal messages, but these must be repeated and the adult must make sure that the child understood. Images and symbols sustain the verbal message.

The expressive communication map indicates that speech is present, but communication is better if he also uses images, objects and signs to transmit interests and needs. The register of communication systems developed, these can be used in combinations according to needs and context. Vocalisations and physical manipulations are still used if the communication partner does not understand. Using symbolic communication is still difficult, MP sometimes referring to presymbolic communication in expressing needs. The objectives in developing communication must refer to consolidating the existing communication skills, increase of communication partners and contexts.

VII. Conclusions and recommendations

The case study presented in this paper emphasizes the importance of functional assessment and the developing an individualised intervention plan in the view of acquiring and developing communication skills. The establishment of the level of communication and the realization of the communication profile represent the first stages of intervention. In this purpose different assessment tools can be used, like developmental scales, functional methods of assessment, files of observation, the results being corroborated with information from the parents and the professionals that carried out activities and coordinated previously an intervention plan of the child. The continuous assessment of communication determines the objectives and the specific strategies that must be applied in order to reach the finalities that we want in intervention. Each child is unique, but also the context that he or she functions is also unique. The context of intervention, that is learning environment, staff, family, period of intervention must all be considered and evaluated so that we meet the specific and really individual needs of the child .

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ASSESSING THE RECEPTION OF VERBAL CATEGORIES IN ROMANIAN LANGUAGE

CAROLINA HĂȚEGAN

ZUSAMMENFASSUNG. Durch diese Forschung "Auswertung des Empfangsfähigkeiten des rumänischen Verbale kategorien" erweist sich der Art in dem die spezifisch rumänische Verbale Kategorien auswertet sein können. Die Auswertung dient für Definierung die Funktion des Verbale Kategorien im Rahmen des Entwicklung der Morphologiekompetenz. Auf diese Weise, in diese Richtung wurde eine Forschung gemacht. Die Forschung äußert die Existenz eine, aus Statistischer Sicht stark bedeutsames Zusammenhang zwischen Empfangsfähigkeiten und Begriffsvermögen des Verbale Kategorien (Zeit, Art, Diathese) und diejenige von Empfang und Verständniss der Aspekte des grammatischer Flexions die Rumänische Sprache. Die davon ausgehende Perspektive zieht die Sprachwissenschaftliche mit die Psychopädagogische Einstellung zusammen für die Erstellung des Prämisses von eine angemessene und funktionelle Projektion des Interventionsprogramme, deutend auf das morphologische Niveau die Sprache.

Schlüsselwörter: das Morphem, die Verbale Kategorien, die empfangsfähige Sprache, die Art, die Zeit, die Diathese, das Verstehen.

ABSTRACT. Through this research, it is emphasized the way verbal categories specific for Romanian language can be assessed in order to establish their role in developing morphologic competence. Thus, in this respect it was developed a research through which it is proven the significant relationship, from a statistical point of view, between the abilities for reception and comprehension of verbal categories (time, mood, voice) and those for reception and comprehension of flexional grammatical aspects specific for Romanian language. The assumed perspective combines linguistic and psycho-pedagogical approaches in order to create the premises for projecting appropriate and functional intervention programs at morphologic language level.

Keywords: morphemes, verbal categories, receptive language, mood, time, voice, comprehension.

Introduction

Verbal categories are one of the most difficult morphologic categories having into consideration the situation both of the children normally developed concerning the language and communication abilities and the children with disabilities. In this respect

it can be mentioned the researches developed by Popovici (1994), researches through which he underlined the fact that while the normally developed child acquires all the morphemes during the period 3-10 years old, the one mentally disabled keeps on showing a significant delay at this level of language. Pruthi (2007) emphasized the fact that these delays are not caught up with, not even later, after the age of 14-15 years old; the mentally disabled child does not prove any kind of acquisitions concerning the grammatical language level. Rondal and Seron (1999) also underlined the fact that in the case of the mentally disabled child the lexical-grammatical classes are unstable, especially: article, pronoun, verb, preposition and conjunction). The flexionary aspects of the verbal category, especially those for time and aspect (grammatical category specific for French) can be mentioned many difficulties as the verb seem to be the most difficult to acquire lexico-grammatical category. Thus, the abilities to put the words together are inferior, the mentally disabled child being able to combine no more than 3-4 linguistic structures around the age of 8/9 years old.

Pufan (1972, 1982) and Anca (2007) mentioned the fact that in the case of the hearing impaired child the lexical-grammatical classes that are to be identified in their speech are those from the nominal group: the noun, the adjective and the pronoun. The child with hearing impairments faces many difficulties related to verb and to all its main morphologic categories. Thus, in most of the cases the child tends to use linguistic structures without the verb or linguistic structures without establishing grammatical relationships between words. For instance the hearing impaired child uses structures such as: „Craciun nastere Isus” (Christmas borning Jesus-instead of the verb to born he uses the noun), „tu face rau” (you make bad things-instead of using the verb “to do” accorded with the pronoun “you”, as in Romanian there are different morphemes for all the persons in a certain verb paradigm, the child keeps on using the word without establishing the required connection pronoun-verb in terms on number, time, person).

As in Romanian stress as part of the suprasegmental component of language is flexible concerning the verb category (stress has to be moved from the root to the inflexion during the conjugation process). This can be an important cause added to other causes that delays verb categories acquisition in the case of the hearing children, but also in the case of other categories of children with language difficulties (Hategan, 2009).

In the context of learning difficulties related with language development can be identified deficits in establishing the verbal agreement, deficits in receiving several complex structures. Despite the normally developed children’s language performance the adjectival, noun, verbal and adverbial morphologic aspects are less developed and acquired in the case of the children with learning difficulties (Paul, 2007).

Having into consideration these aspects through our research we want to achieve the following goals:

- to establish if between the main verbal categories in Romanian (time, mood and voice) there can be identified a relationship,

- to identify those grammatical aspects that significantly influence the acquisition of the verbal categories in Romanian in order to establish their role within Romanian morphologic competence.

Materials:

In order to reach the mentioned objectives it was used the “Probe for Assessing the Reception of (PRCMLR). This probe focuses on twenty morphologic aspects specific for Morphologic Categories in Romanian Language” Romanian language. Among these, a special interest is shown to the three morphologic categories concerning verbal class: time, mood and voice.

Procedure and participants:

The above mentioned and shortly described probe was applied in the case of 204 participants selected on the following criteria:

- children having the age between 6 and 11 years old,
- children inscribed in the following categories: normally developed children, hearing impaired children, children with low and moderate mental disability and children with learning difficulties.

After the probe was applied, it was calculated the correlation coefficient between those twenty morphologic categories included in the probe by using as statistic test, the parametric correlation test Pearson (having into consideration the fact that the scatter plots proved homogeneity regarding children`s responses for the items included within the probe).

Results and discussions:

In our study we place the interest on the results concerning children`s results at the level of those three verbal categories items: time, mood and voice.

The hypothesis from which we start our research is: between the morphemic blocks of time, voice and mood and the ones that imply flexion after number and person, but also the ones that imply a relationship of grammatical dependence (we refer in this particular case to the situation of the non-flexional lexical-grammatical class of the adverb) can be underlined a strong co-variance relationship. The co-variance level should be very low between the verbal categories and those blocks of variables that characterize non-flexional lexical-grammatical classes and those that are not based on a grammatical relationship verbal-adverbial one.

Voice

Voice is a grammatical category through which it is expressed the relationship between action and the grammatical subject. In Romanian language, there can be mentioned three types of relationships (Coteanu, 1974; Bejan, 2001):

- active- the relationship shows that action is developed by the grammatical subject, it affecting either persons or objects;
- passive- the relationship shows the fact that the grammatical subject suffers the action whose author is the logical subject (the subject complement);
- reflexive-the expressed relationship underlines the fact that the subject does and, in the same time, suffers the consequences of the action.

Having into consideration this theoretical perspective concerning voice in Romanian and the above-mentioned hypotheses based on it, the results of the correlations between the blocks of items that assess the reception and the comprehension of the voice and the other 19 blocks of items included in the used probe, most of them are highly significant from a statistical point of view ($p < .01$). Between the block of items assessing voice reception and the block of items of the preposition is registered a correlation significant from a statistical point of view just at the level $p < .05$ as $r = .170$.

The less intense correlations are registered in relation with the class of coordinating conjunctions ($r = .250$, although the correlation is significant at the level $p < .01$), of subordinating conjunctions ($r = .303$, $p < .01$), of the simple prepositions ($r = .329$, $p < .01$), of ordinal numeral ($r = .243$, $p < .01$), of adverb/adverbial prepositions ($r = .246$, $p < .01$). It can be seen the fact that the abilities for receiving voice are not in a tight relation with the abilities for receiving morphologic categories that have functional value, although all the calculated correlations are significant from the a statistical point of view. For strengthening these results and assumptions, it can be mentioned the research that focuses on the exclusively functional value of preposition, research developed on aphasic pathology and that underlines the fact that the lexical component concerning prepositions as a grammatical class lacks (Froud, 2001).

The high intensity of correlations with the category of the morphemes that express number for nouns ($r = .438$, $p < .01$), number for adjectives ($r = .454$, $p < .01$), number for pronouns ($r = .439$, $p < .01$) confirm the start hypothesis. The most intense correlation, the one with the adjectival class can be explained by the fact that in the case of the items assessing passive voice (the probe includes distinct items for passive voice), verbal structure requires the auxiliary of the verb "to be" + the participle (the third form) of the verb, participle with adjectival value. This participle requires a similar flexion with the one of the adjective.

Time and mood

Time expresses the form that the verb presents in order to underline the moment when action takes place: present, past and future (for indicative); present and perfect (for conjunctive, conditional optative and infinitive). Between these past and future (as times belonging to indicative) presents the following subdivisions:

- for past: imperfect, perfect simple, perfect compound, more than perfect;
- for future: future I and previous future (future II) (Gruita, 1998).

Mood is a grammatical category that expresses the form that the verb takes in order to show the way the speaker considers the action he expresses, real or

possible. According to the way person can be expressed and according to the possibility to form an enunciatively nucleus (predicate), moods divide into personal ones (the ones that conjugate according to persons) and non-personal (they are invariable after person and they claim for the presence of another verb in a personal mood in a sentence) (Bejan, 2001; Neamtu, 2009).

In our research the interest is put on personal moods and on the morphemes through which is ensured their reception and comprehension. Personal moods are also predicative ones, these being the following: indicative, conditional optative, conjunctive, imperative and presumptive. With the exception of presumptive and conjunctive moods, all the other verbal moods would be approached, from a psycho-pedagogical perspective in our research.

Times classify in simple and compound ones, after their morphematic structure. From this perspective, the relationship between verbal times and moods is a strong one. Thus, simple times, those times that materialize through a single word, with the given segmental morphemes are (Bejan, 2001; Irimia, 2008):

- from indicative: present, perfect simple, imperfect and more than perfect;
- imperative.

The compound times are times that express through two words (auxiliary verb and verb to be conjugated). These compound times are:

- from indicative: perfect compound, future I and future II;
- from conjunctive: present and perfect;
- from conditional optative: present and perfect.

The items included in the assessment probe imply the distinction present-past-future, on the temporal coordinate and the distinction indicative-imperative-conditional optative, on modality coordinate. There are not approached within this research the conjunctive mood and the other verbal times, in order not to increase the complexity of the task. Thus, this fact can be explained having into consideration the fact that there are researches that underline the fact that morphologic abilities are to be structured during the entire schooling period (Nagy et al., 1993), but there are also restrictive reasons concerning the graphical/pictured presentation of the assessment probe.

The specific hypothesis is: the co-variance based relationship between those two morphemic blocks (verbal time and mood) is more intense with the flexional lexical-grammatical classes and less intense with the non-flexional ones.

Being calculated the correlation coefficient, the above mentioned assumption can be proven, it being strengthened by the intense correlations:

-with the lexical-grammatical pronoun class (the correlation time-pronoun is $r=.429$; the correlation mood-pronoun is $r=.434$);

-with the block of variables through which it is assessed number in nouns (the correlation time-number is $r=.421$, while the correlation mood-number is $r=.443$). All these correlations are highly significant at the level $p<.01$.

The correlation between these two morphemes blocks, verbal time and mood is a significant one, too, in the statistical level $p<.01$, it having the values

$r=.369$. There are also calculated positive and highly significant correlations among those three verbal categories: time/mood/voice; aspect that underlines a highly significant co-variance relationship among these.

The relationship between the reception and the comprehension of the morphemic aspects in Romanian language, placing on the first position the verbal morphemic categories can be illustrated in the following figure:

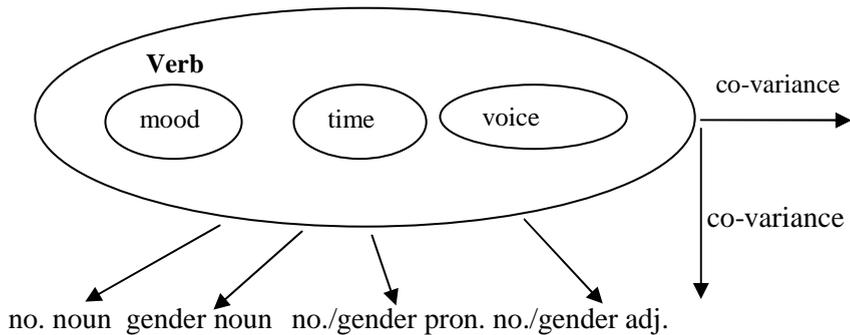


Figure 1. Relations between the reception of the verbal categories and other morphologic aspects in Romanian

Conclusions:

The results and the discussions presented in the above section, based on specific verbal theoretical aspects concerning verbal categories time, mood and voice in Romanian language are very concise expressed in figure 1.

From the presented figure can be underlined the fact that, in the case of the experimental group from this research, the reception and comprehension abilities for those three verbal categories time, mood and voice are in a tight relation of co-variance. This means that their acquisition is simultaneous. Thus, through this aspect we can underline the fact that in Romanian language, both in the case of normally developed children and in the case of disabled one (in our case children with language impairments) verbal categories are dependent one on each other. This aspect can be used in order to design the language therapeutically sessions, but also the methodological language approaches.

Through our research it is also underlined the strong relationship between verbal categories and those morphemic categories through which the nominal class in express (morphemic categories that are mentioned in figure 1.). This tight relationship stresses on the fact that even if verbal categories are more complex and more difficult acquired, their acquisition should be based on nominal lexical-grammatical classes. It is also underlined the fact that there can not be identified cases in which the morphemic categories such as number and gender specific for the nominal lexical-grammatical classes (noun, pronoun, adjective) are properly used in flexion and

verbal morphemic categories are completely inadequate used and acquired. From this conclusion can be drawn another one- verbal categories (time, mood, voice) and nominal categories (number, gender) seem to be the key morphologic aspects responsible for structuring morphologic competence in Romanian language. The fact that we can identify this strong co-variance relationship among them leads us in formulating another research premise, a premise that should be tested in a different research, after developing an intervention program for developing morphologic competence based on the three mentioned verbal categories and the two nominal ones.

Through this research, being combined the linguistic and psycho-pedagogical approach on morphologic aspects it is also given a direction for developing another language level, the syntactic one, having into consideration the fact that the final goal of all curricular documents concerning language acquisition and development, in Romanian education system is the development of communicative competence. In this respect, grammar seems to be an important starting point, necessary to be taken into consideration.

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LEGAL WRITING AND THE AMBIGUOUS NATURE OF AMBIGUITY

ALINA PREDA

ABSTRACT. Whereas in the literary and artistic realms ambiguity is often willfully employed in order to provide more fecund opportunities for interpretation, in fields such as physics, mathematics, logic, medicine, philosophy and law it is considered an error to be avoided. Disambiguation is of pivotal importance in law, since the legal discourse still is in dire need of clarity and precision, but these are features that can only be reclaimed if ambiguity is avoided or, at least, resolved. The purpose of this study is to differentiate between the two relatively similar concepts of **ambiguity** and, respectively, **vagueness**, and to discuss the various **types of ambiguity** that feature in an assortment of legal writing samples, in order to show that, more often than not, ambiguity can be shunned from legal drafting.

Keywords: *vagueness, latent ambiguity, patent ambiguity, internal ambiguity, external ambiguity, phonological ambiguity, syntactic ambiguity and lexical ambiguity.*

ZUSAMMENFASSUNG. Während in den literarischen und künstlerischen Reichen Mehrdeutigkeit häufig absichtlich eingesetzt wird, um fruchtbarere Gelegenheiten für Interpretation zur Verfügung zu stellen, auf den Gebieten wie Physik, Mathematik, Logik, Medizin, Philosophie und Gesetz gilt es als einen Fehler den man vermeiden sollte. Disambiguisierung ist von Angelbedeutung im Gesetz, da die legale Darlegung noch im dringenden Bedarf der Klarheit und der Präzision ist; aber diese sind Eigenschaften, die nur zurückgefordert werden können, wenn Mehrdeutigkeit vermieden oder wenigstens gelöst wird. Der Zweck dieser Studie ist, zwischen den zwei verhältnismäßig ähnlichen Konzepten der Mehrdeutigkeit zu unterscheiden und beziehungsweise Unbestimmtheit und die verschiedenen Arten der Mehrdeutigkeit besprechen, die in einer Zusammenstellung der legalen Schreibensproben kennzeichnen, um zu zeigen dass meistens Mehrdeutigkeit vom legalen Entwurf gemieden werden kann.

Schlüsselwörter: *Unbestimmtheit, latente Mehrdeutigkeit, Patentmehrdeutigkeit, interne Mehrdeutigkeit, externe Mehrdeutigkeit, phonologische Mehrdeutigkeit, syntaktische Mehrdeutigkeit und lexikalische Mehrdeutigkeit.*

The problem with the notion of ambiguity lies in the fact that the term itself is generally employed in highly ambiguous ways. Despite being a pervasive feature of natural language, the study of which has been so far undertaken by numerous disciplines, from syntax to semantics and pragmatics, and from literature

to psychology, philosophy and law, ambiguity is still an elusive concept, in need of a more precise definition and classification. The purpose of this study is to differentiate between the two relatively similar concepts of **ambiguity** and, respectively, **vagueness**, and to discuss the various **types of ambiguity** that feature in an assortment of legal writing samples. Disambiguation is of pivotal importance in law, since the legal discourse still is in dire need of clarity and precision, but these are features that can only be reclaimed if ambiguity is avoided or, at least, resolved.

The adjective *ambiguous*, for instance, is taken to be synonymous with terms as varied as *vague*, *unclear*, *unintelligible*, *indeterminate*, *indistinct*, *equivocal*, *puzzling*, *enigmatic*, *cryptic*, *questionable*, *doubtful*, *dubious*, *obscure* and *tenebrous*. The noun **ambiguity** enjoys a similarly rich company: *vagueness*, *unclearness*, *indefiniteness*, *inconclusiveness*, *indeterminacy*, *indeterminateness*, *uncertainty*, *equivocation*, *equivocality*, *equivoque*, *equivocacy*, *nebulousness*, *cloudiness*, *imprecision*, *obscurity*, *puzzle*, *enigma*, *doubt*, *dubiety*, *dubiousness*, *doubtfulness*, *tergiversation*, *prevarication*, *suggestiveness* and *double-entendre*. This abundance of synonymous forms, in both cases, which, on the one hand, comes as no surprise, given the natural parallelism usually encountered whenever synonyms for such closely related terms are sought for, poses, on the other hand, a serious challenge to definitions such as “Ambiguity is the property of being ambiguous.” Of course, most, though not all, definitions beginning this way allow for at least some degrees of ambiguity resolution, as they further provide more or less clarifying details in their description of the concept:

A). Ambiguity: 1. the quality or state of being ambiguous; 2. an ambiguous word, statement, etc.¹

B). Ambiguity: 1.a. the quality or state of being ambiguous especially in meaning; b. an ambiguous word or expression; 2. uncertainty.²

C). Ambiguity: The quality or state of being ambiguous; doubtfulness or uncertainty, particularly as to the signification of language, arising from its admitting of more than one meaning; an equivocal word or expression.³

D). Ambiguity is the property of being **ambiguous**, where a word, term, notation, sign, symbol, phrase, sentence, or any other form used for communication, is called ambiguous if it can be interpreted in more than one way.⁴

E). Ambiguity: 1. characteristic of an ambiguous expression, an expression whose meaning cannot be determined from its context; 2. equivocalness (unclearness by virtue of having more than one meaning).⁵

¹ *Webster's New World College Dictionary*. LoveToKnow, n.d. Web. <http://www.yourdictionary.com/ambiguity> Retrieved on 17 October 2009.

² *Merriam-Webster Online Dictionary*. 2009. Merriam-Webster Online. <http://www.merriam-webster.com/dictionary/ambiguity> Retrieved on 17 October 2009.

³ Porter, Noah (ed.) (1913). *Webster's Revised Unabridged Dictionary*. Springfield, Massachusetts: C. & G. Merriam Co.

⁴ <http://en.wikipedia.org/wiki/Ambiguity> Retrieved on 17 October 2009.

F). Ambiguity: Uncertainty of meaning, usually caused by words or phrases that convey more than one meaning.⁶

G). Ambiguity: 1. the possibility of interpreting an expression in two or more distinct ways; 2. vagueness or uncertainty of meaning.⁷

H). Ambiguity: A statement which can contain two or more meanings.⁸

D). Ambiguity: A statement with two or more meanings that may seem to exclude one another in the context.⁹

J). Ambiguity: the possibility of more than one interpretation of a spoken or written expression; doubtful meaning. Ambiguity is much used in poetry.¹⁰

K). Ambiguity: The presence of two or more possible meanings in any passage. Also, a fallacy in which the same term is used in more than one way.¹¹

L). Ambiguity: Something which admits of interpretation in two or more possible senses. In logical and critical texts, ambiguity is usually something to be avoided, but many creative works capitalize on it quite effectively.¹²

M). Ambiguity: Openness to different interpretations, or an instance in which some use of language may be understood in diverse ways viewed by modern literary critics as “a source of poetic richness rather than a fault of imprecision.”¹³

N). Ambiguity: use of words that allow alternative interpretations. In factual, explanatory prose, ambiguity is considered an error in reasoning or diction; in literary prose or poetry, it often functions to increase the richness and subtlety of language and to imbue it with a complexity that expands the literal meaning of the original statement.¹⁴

Even a cursory look at all these definitions should be enough to conclude that they display various degrees of ambiguity themselves, or, better said, various degrees of imprecision, the ones that feature first being less explicit than those listed towards the end. But a close examination of the list presented above points to some of the **features required** of an appropriate definition of the term “ambiguity”. **One issue refers to the exact items that can be marked by ambiguity:** thus,

⁵ <http://wordnetweb.princeton.edu/perl/webwn?s=ambiguity> Retrieved on 17 October 2009.

⁶ *Peterson’s Practically Painless Guide: Writing a Winning College Application Essay* by Wilma Davidson, Ed. D. and Susan McCloskey, Ph.D. Copyright © American Education Services, 2009. http://www.petersons.com/education_planner Retrieved on 17 October 2009.

⁷ *Collins English Dictionary* – Complete and Unabridged 6th Edition 2003. Waihi: HarperCollins Publishers.

⁸ http://www.tnellen.com/cybereng/lit_terms/terms/Literary.Terms.html#Ambiguity Retrieved on 17 October 2009.

⁹ <http://my.uen.org> Retrieved on 17 October 2009.

¹⁰ *The Opb Dictionary of Ideas*. 1996. New York: Quality Paperback Bookclub.

¹¹ <http://grammar.about.com/od/terms/g/ambiguity.htm> Entry by Richard Nordquist. Retrieved on 17 October 2009.

¹² <http://thebookmann.blogspot.com/2007/01/postmodern-terms-absence-to-curtain.html> Entry by Richard Bolai. Retrieved on 17 October 2009.

¹³ Baldick, Chris (ed.) (1990). *The Concise Oxford Dictionary of Literary Terms*. Oxford: Oxford University Press.

¹⁴ *Encyclopedia Britannica, Inc.* Dictionary.com <http://dictionary.reference.com/browse/ambiguity> Retrieved on 17 October 2009.

some definitions make reference only to “words”, generally, (N), others to “a word or expression” (B, C), some to “an expression” only (E, G), or to “a spoken or written expression” (J), others to “words or phrases” (F) or to “a word or statement” (A), or even to a “statement” only (H); some use the more general word “term” but state that it may occur “in any passage” (K), while others employ the indefinite pronoun “something” (L), or are a tad more specific, mentioning instead “some use of language” (M), only one of the selected definitions thoroughly listing “a word, term, notation, sign, symbol, phrase, sentence, or any other form used for communication” (D). A definition should provide a clear description of the notion in question, and, consequently, the words it contains must be carefully chosen. “Words” is ambiguous as it refers to (one or) more words taken individually, but may also refer to the words in a phrase, or, more generally but less frequently, to the words that make up a sentence. “A word or expression” and “words or phrases” do not normally cover sentences, and neither does “expression” alone. “A spoken or written expression” has the advantage of making a distinction between the two different mediums of communication, but it is rather vague, as it does not necessarily cover the larger unit called “sentence”. “A word or statement” and “statement” alone are also too narrow, failing to cater for situations in which an ambiguous question or command may be uttered. Since a “term” is defined as a word or group of words used in a construction or utterance, it is definitely a wiser choice than “something”, while “some use of language” fits even better, being neither too narrow nor too broad. However, taking into account the fact that language is but one of many means of communication, and given that ambiguity can be displayed by photographs, paintings, drawings, and other art forms as well, probably the best choice would be to decide upon a rather specific yet more complete list such as *a word, phrase, sentence, term, notation, drawing, sign, symbol, or any other form used for communication*.

Another essential aspect is the one pertaining to the **context**, or the **situation**, which was mentioned in only one of the definitions above. Definition (I) views ambiguity in a radical fashion, as “a statement with two or more meanings that may seem to exclude one another in the context”. By employing the term “statement” and then making reference to the context, this definition is in tune with the opinions put forward by those linguists who believe that words in themselves are not ambiguous, since they are to be used in context, and that only those statements whose potential meanings are mutually exclusive and whose ambiguity cannot be resolved by resorting to the linguistic and/or non-linguistic context may be said to be truly ambiguous.

One additional issue concerns the manner in which the phenomenon of **ambiguity** is **viewed by representatives from various fields**. Thus, whereas in the literary and artistic realms ambiguity is often willfully employed in order to provide more fecund opportunities for interpretation, in fields such as physics, mathematics, logic, medicine, philosophy and law it is considered an error to be avoided.

The **domain** is quintessential when it comes to the classification of the different types of ambiguity as well. In **the legal domain**, for instance, the main distinction made is that between **latent** and **patent** ambiguity, but recently the notions of **internal** and **external** ambiguity have been contrasted. Thus, if the ambiguity is hidden, namely if it is **not caused by the language** employed in the drafting of the deed, contract, will or other instrument but originates in an extraneous fact or extrinsic evidence, in a collateral matter out of the instrument, it is called **latent ambiguity**. For instance, if a man leaves in his will part of the estate to his cousin named John Brown, when two of his cousins have the exact same name, then parol evidence is required to solve the ambiguity. If ambiguity results from the faulty drafting of the deed, contract, will or of any other instrument, which contains **obscure or unclear wording**, then it is called **patent ambiguity**. In such a case parol evidence is admissible but only in order to explain what has been written, not what it was intended to convey. In Constitutional Law, for example, statutes containing ambiguous language are “void for vagueness”. The phrasing of such laws is viewed as unclear and obscure, making it impossible for a reasonable person to determine exactly “what the law purports to command or prohibit”. Such cases of statutory ambiguity deprive a person of “the notice requirement of Due Process of Law”, and, consequently, render the statute unconstitutional¹⁵.

According to **legal practitioners**, ambiguity resides neither in the use of peculiar words, nor in the use of ordinary words with a peculiar sense. Words are considered ambiguous only when their meaning is uncertain to reasonable persons, who are clearly endowed with competent knowledge and skill to understand them, being familiar with the practice, usage and terminology of the respective field of activity. Thus, Professor Anup Malani (2009) from the University of Chicago’s Law School, distinguishes between **internal** and **external ambiguity**. A text may be ambiguous because “the person reading it is uncertain about its meaning” – the **internal** view on ambiguity, or because “the person reading it thinks others would disagree about its meaning (even if the reader is not uncertain)” – the **external** view on ambiguity. Malani (2009) concludes that different people might view different texts as ambiguous “depending on which definition they are using”¹⁶.

Ambiguity is a term often employed to refer to **vagueness**, although these two words should not be used interchangeably. The former does not subsume the latter, and the differences between them are legally important. Nevertheless, the confusion has been signalled even in the case of highly regarded legal writings:

“[A] written constitution must be enormously ambiguous in its general provisions.”¹⁷ (Levi, 1972: 59)

¹⁵ *West’s Encyclopedia of American Law*, edition 2. Copyright 2008 The Gale Group, Inc. <http://legal-dictionary.thefreedictionary.com/ambiguity> Retrieved on 19 October 2009.

¹⁶ Nathan Richardson, blogpost dated June 4, 2009. <http://uchicagolaw.typepad.com/faculty/2009/06/what-are-judges-supposed-to-do-when--statutes-are-ambiguous-this-question-is-the-source-of-endless--quantities-of-legal-s.html> Retrieved on 19 October 2009.

¹⁷ Levi, Edward H. (1972 [1949]). *An Introduction to Legal Reasoning*. Chicago: University of Chicago Press.

“A wise draftsman, when he is dealing with novel issues in course of uncertain development, will deliberately retreat into ambiguity.”¹⁸ (Gilmore, 1974: 76)

In the case of the two statements quoted above we should read *vague* and, respectively, *vagueness*, instead of **ambiguous** and **ambiguity**, since not only is ambiguity something to be avoided in legal practice, but it also cannot be deliberate, there being no such thing as “deliberate ambiguity” (Garner, 1995: 49). Dickerson (1975: 48-49) points out that the uncertainty of ambiguity “is central, with an ‘either-or’ challenge”, while the uncertainty of vagueness “lies in the marginal questions of degree” and, therefore, **ambiguity** is “a disease of language”, whereas *vagueness* can often be “a positive benefit”.¹⁹

The list of ambiguities that feature in legal writing provided by Bryan A. Garner²⁰ can be divided into three main categories: *phonological*, *syntactic* and *lexical*. The first category, that of *phonological ambiguity*, contains examples that contain the structure **may not**, as in

“Even if a merchant sells a product, if he was not engaged in selling that particular product in the normal course of business, he may not be held liable.” (Garner, 1995: 49)

Here the structure can be interpreted either as *it is the case that the merchant is immune to liability* (if the stress falls on *not*), or simply as *the merchant might or might not be immune to liability* (in case the stress falls on *may*). Given that the intended meaning of the expression **may not** in drafted documents is generally the former, the previous example should be rephrased as “he *must* not be held liable”. *Must* is a better choice than *shall* in such texts due to the fact that the latter may have as many as eight different senses in legal writings, despite the common view that this modal verb is used to denote mandatory actions. In fact, as Garner explains (1995: 940), this verb has been used to:

1. show that a duty is imposed on the actor/subject of the sentence:

The judge shall issue a restraining order.

2. show that a duty is imposed on an unnamed actor that is different from the actor who is the subject of the sentence:

The abuser shall be ordered to leave.

3. show that a duty is imposed on an unnamed actor, as concerns the abstract entity that is the subject of the sentence:

A time shall be set for the judge to look over the papers.

4. state a conditional duty imposed on the party that desires to take action in a certain respect:

A restraining order shall be filed in the courthouse belonging to the county where either the petitioner or the respondent live.

5. name an entitlement (not a duty):

The delegate shall be fully reimbursed for the travel and living expenses.

¹⁸ Gilmore, Grant (1974). *The Death of Contracts*. Ohio: The Ohio State University Press.

¹⁹ Dickerson, F. Reed (1975). *The Interpretation and Application of Statutes*. Boston: Little, Brown.

²⁰ Garner, Bryan A. (2001 [1995]). *A Dictionary of Modern Legal Usage*. Second edition. Oxford: Oxford University Press.

6. direct one to follow certain requirements which are by no means mandatory, unless one intends to take that specific course of action:

The respondent shall, within 30 days from the date of service, request a hearing if s/he wishes the restraining order to be dropped.

7. negate permission (not duty):

The deadline shall not be extended unless proper cause has been demonstrated.

8. express futurity in retrospective when outlining the necessary conditions required before legal action may be taken:

The petitioner shall have provided the court with current addresses and current telephone numbers in order to be notified of the time and date of the hearing.

Garner (1995: 939) pertinently points out that *shall* is a “chameleon-hued word”, more likely to be coloured by the linguistic context in which it is used, rather than to clearly control it.

The examples of *syntactic ambiguity* are caused by **problematic verbal correspondences**, by **the garden path effect**, by **dangling adverbial modifiers**, by **misplaced agents**, by **poorly placed pre-modifiers** or by **poorly placed post-modifiers**.

▪ **problematic verbal correspondences:**

“The parties shall make every reasonable effort to agree on and have prepared as quickly as possible a contract ...” (Garner, 1995: 49)

There are three possible interpretations, at first sight, for the statement above, depending on whether the syntactic counterpart of *have* is *shall*, *make* or *agree*. The most likely meaning seems to be the one conveyed by the following rephrase: “The parties shall make every reasonable effort to agree on a contract and shall have a contract prepared as quickly as possible ...”.

▪ **the garden path effect:**

“The artificial entity may sue or be sued as though it were a person, it pays taxes, it may apply for business licences in its own name, it may have its own bank account, it may have its own seal, and so forth.” (Garner, 1995: 49)

Despite the fact that the antecedent of the third person singular pronouns is, clearly, the head noun *entity*, the position of the first one after the structure *as though* causes the reader to expect, at first, parallel structures to follow. However, the reader is simply lead along the garden path, because instead of a series of subordinate adverbial clauses the text actually contains a sequence of coordinated independent clauses. Disambiguation may be achieved by rewording the sentence and omitting some these pronouns in the process: “The artificial entity pays taxes, may apply for business licences in its own name, may have its own bank account, may have its own seal, may sue or be sued as though it were a person, and so forth.”

▪ **dangling adverbial modifiers:**

“The court concluded that literacy tests had abridged the right to vote on account of race or colour.”

The prepositional phrase *on account of race or colour* seems to post-modify the infinitive phrase *to vote*, but, in spite of their proximity, the two

structures do not belong together. On the contrary, the intended meaning is that *the right to vote was abridged on account of race and colour*, so the prepositional phrase actually modifies the verb *had abridged*.

- **misplaced agents:**

“This chilling tale, told in a 13-page report released today by Edward F. Stancik, the Special Commissioner of schools, raised serious questions about the detection and reporting of child abuse by school officials.” (Barbanel, quoted in Garner, 1995: 49)

Due to the position of the agent, the sentence seems to discuss instances of *child abuse by school officials*, when it actually refers to the inappropriate *detection and reporting by school officials of child abuse cases*.

“Israeli police officers pulled tires away from a burning fire lit in response to the slayings by Jewish protesters Tuesday.” (“2 Israeli Police Gunned Down”, *Daily Texan*, 31 March 1993, at 3; quoted in Garner, 1995: 49)

Here there are two possible interpretations: either *a burning fire lit by Jewish protesters in response to the slayings attributed to some other group*, or *a burning fire lit in response to the criminal acts perpetrated by some Jewish protesters on a slaying spree*. Although the proximity rule would suggest that the latter should be the most likely intended meaning, the authors actually intended to express the former.

- **poorly placed pre-modifiers:**

“A divided panel ... reversed [defendant’s] convictions, holding that her detention violated the Fourth Amendment [...] because the customs inspectors did not have a ‘clear indication’ of alimentary canal smuggling at the time she was detained.” (*U.S. versus Montoya de Hernandez*, 473 U.S. 531, 533 (1985) quoted in Garner, 1995: 50)

Although the U. S. Supreme Court employed the noun phrase “alimentary canal smuggling” in order to refer to “smuggling contraband goods by concealing them temporarily in one’s gut” (quoted in Garner, 1995: 50), this noun phrase seems to mean “the smuggling of alimentary canals”, following examples such as *drug smuggling*, *cigarette smuggling*, *arms smuggling*, *human smuggling* or *people smuggling*.

- **poorly placed post-modifiers:**

“As such, the court would be correct in ordering a partial distribution of the amount of the fund that has been sought in the motion.” (adapted after Garner, 1995: 49)

There are three possible interpretations for the statement above, since the relative pronoun *that* may have as an antecedent not only the noun *amount* (the one that most probably conveys the intended meaning), but also either of the other two nouns, the head noun, *distribution*, and, respectively, the complement of preposition, namely *the fund*.

The examples of *lexical ambiguity* are rooted in poor word choice, such as the use of the verb *edit* in a statement such as “No one has ever told them how to edit syntactic confusion into clear prose” (Joseph Williams, *Style: Ten Lessons in Clarity and Grace* 4-5 (1981); quoted in Garner, 1995: 50). As Garner (1995: 50) points out, the verb *edit* followed by the preposition *into* seems to “read as if it were *insert ... into*” and thus may distort the writer’s intended meaning. Therefore, it should have been replaced with *transform*, for instance, in order to avoid ambiguity.

Since ambiguous texts fail to offer definitive answers, leading, more often than not, to litigation for the sake of litigation, legal drafting should be done with greater care, by choosing, whenever possible, words that do not leave room for interpretation. If the language used to give form to a statute, law, contract, deed, will, or any other instrument is not conclusive enough, then subjectivity, as well as bias and prejudice are encouraged. In most cases ambiguity can be avoided, as demonstrated, throughout this study, by the disambiguating rephrases supplied in the discussions following each example. And even though neither scholars, nor professors, neither lawyers, nor judges can ever succeed in devising a theory of interpretation unanimously accepted for all possibly ambiguous phrasings, the mere trimming of drafting techniques as advocated by Garner (1995) is bound to provide a rather coherent corpus of legal writings, one marred by much more tolerable degrees of uncertainty.

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L'ÉDUCATION POUR LA CITOYENNETÉ DÉMOCRATIQUE ET LA PHILOSOPHIE DU MULTICULTURALISME

ION ALBULESCU*

ABSTRACT. The democratic citizenship is related to the context, to the environment where the individual lives and exercises his legal rights. In the contemporary world, there are many politic, economic, social and cultural phenomenons which develop depending on certain relation systems, which do not take into account the borders, especially the politic and administrative ones. The contexts are the ones where the individual exercises his citizen status. Without taking them into account, the education for democratic citizenship loses its plain significance and its applicability. For a better understanding of the education for democratic citizenship and of what it is supposed to do, we have to circumscribe it to a well defined set of social and cultural contexts. The opening to other cultures represents one of the possible orientations of the education for democratic citizenship. School is a proper place for the cultural harmonisation requested by the perspective of constructing a European unitary space and also by the phenomenon of globalization of the economy, technology and information. Therefore, the students must develop their capacity of recognizing various cultural codes, of communicating in an intercultural context, of shaping their own identity without becoming victims of several stereotypes and prejudices, of understanding the peculiarities of the everyday life in various countries. That is why we are approaching the multicultural context of achieving education for democratic citizenship in this work.

Keywords: education, multiculturalism, democratic citizenship.

ZUSAMMENFASSUNG. Die Demokratische Erziehung und die Philosophie des Multikulturalismus. Die Veränderungen der modernen Gesellschaft stellt eine neue Problematik für die Bildung da.

Die wichtigsten Werte sind: Demokratie, Verantwortung, Anteilnahme, Toleranz, Kooperation, Kommunikation etc.

Die Erziehung und Bildung zur Demokratie ist die wichtigste Devise, die nur durch theoretischen und praktische Bemühungen zu bewältigen ist. Die Erziehung zur Demokratie hängt vom kulturellen und sozialen Kontext des Individuums ab. Im aktuellen Kontext, viele Fenomene der politischen, wirtschaftlichen, sozialen und kulturellen Natur finden im Sozialsystem statt, dass sich unabhängig von Grenzen jederart maniefestieren. Jeder Bürger manifestiert sich in einem bestimmten Kontext. Die Debatte um "Erziehung zur Demokratie" hält das Thema wach und aktuell. Um es besser zu verstehen was die Erziehung zur Demokratie bedeutet und welche Erwartungen daraus resultieren, muss man den ganzen Kontext sehen, dass eine Reihe von wirtschaftlichen, sozialen, politischen und kulturellen Aspekten beinhaltet.

Das folgende Thema handelt von Multikulturellem Kontext der Erziehung zur Demokratie.

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Schlusselforte: die Erziehung, Multikulturalismus, Demokratische Bürgerschaft.

Introduction

Les changements survenus dans le monde contemporain ont engendré une problématique nouvelle pour l'éducation, axée sur une série de valeurs considérées prioritaires: démocratie, participation, responsabilités, tolérance, coopération, communication etc. les développements théoriques de cette problématique et les démarches pratiques qu'ils incitent et qu'ils soutiennent sont exprimées par le syntagme «L'éducation pour la citoyenneté démocratique».

La citoyenneté démocratique est liée au contexte, c'est-à-dire au milieu ou l'individu vit et fait usage des droits dont il bénéficie. De ce fait on doit tenir compte aussi dans la réalisation de l'éducation pour la citoyenneté démocratique. Dans le monde contemporain beaucoup de phénomènes politiques, économiques, sociaux et culturels se développent en fonction de systèmes de relations, qui ne tient compte de frontières, spécialement de frontières politiques et administratives.

Les contextes sont ceux dans lesquels l'individu manifeste son qualité de citoyen. Sans en tenir compte, l'éducation pour la citoyenneté démocratique perd de son clarté de signification et de l'applicabilité. C'est pourquoi, pour mieux comprendre l'éducation pour la citoyenneté démocratique et ce qu'on en attend, on doit premièrement l'encadrer dans un set clairement défini de contextes économiques, sociaux et culturels. A la suite, on va aborder le contexte multiculturel de la réalisation de l'éducation pour la citoyenneté démocratique.

I. Repères axiologiques de l'éducation pour la citoyenneté démocratique

L'éducation pour la citoyenneté démocratique a comme but de former et développer à l'individu des compétences de participation actives dans la vie publique, de la participation au vote, aux interventions spécifiques pour influencer la décision politique, à la défense et promotion de ses droits ou à la manifestation d'un comportement responsable dans la société. Elle suppose non seulement «savoir» mais aussi «apprendre à vivre avec les autres», «apprendre à être» et «apprendre à faire, à agir». Chaque individu doit en bénéficier, ainsi qu'il entende que la démocratie n'apparaisse et ne se développe pas de soi-même, mais elle dépend sur la contribution de chacun, que seulement par l'implication de tous les citoyens on obtient des résultats exprimés en termes d'efficacité publique et personnelle, prospérité économique, justice sociale, accomplissement individuel, moralité.

L'éducation pour la citoyenneté démocratique promouvoit la culture de la démocratie, le partage des responsabilités, l'entente réciproque, tolérance et le solution pacifique des conflits. Ses objectifs majeurs sont la transmission d'un système de valeurs (le pluralisme, les droits de l'homme, la coopération, la

participation, la tolérance, le respect etc), la formation des capacités de dialogue, d'initier des changements, de prendre des décisions responsables, la formation des attitudes responsables, comme la responsabilité vers la communauté, solidarité et confiance dans les siens, flexibilité dans les rapports avec les autres, respect pour la culture des autres, l'option pour des solutions pacifiques des situations conflictuelles.

Les valeurs culturelles insérées au niveau de la subjectivité humaine ont une valeur orientative pour l'individu, elles sont à la base des modèles actionnels dans de diverses circonstances de la vie. La socialisation de l'individu a la base inclusivement la transmission d'un système de valeurs d'une génération à l'autre. Le système social peut être regardé comme une configuration de modèles culturels qui fournissent à l'individu des techniques de vie en groupe, d'interaction et d'intégration sociale, conformément aux attentes ou demandes indispensables dans la perspective de la cohabitation sociale. Certes, chaque culture a ses propres modèles de comportement, qui peuvent être étranges aux hommes provenant d'autres milieux culturels. Pour cette raison, elle doit être étudiée dans les termes de ses propres entendus et valeurs, mais en évitant l'ethnocentrisme, qui représente «le jugement d'autres cultures par comparaison avec celle à laquelle on appartient» (A. Giddens, 2000, p. 33). Au niveau de la société on peut identifier des structures axiologiques, qui englobent des valeurs, normes et attitudes généralisées.

Le processus d'intégration socioculturelle de l'individu peut être compris en termes d'acquisition et d'intériorisation de ces éléments structurels, généralement humains ou spécifiques pour ses groupes d'appartenance. Une fois sédimentées dans la structure de sa personnalité, ces valeurs, normes et attitudes lui servent pour des repères dans la vie quotidienne, pour des critères d'évaluation dans les relations interpersonnelles, pour des standards en fonction desquels on prend des décisions actionnelles. Elles vont se constituer dans ce que C. Cucoş appelle «référentiel axiologique», un terme qui désigne «... la totalité des mobiles individuels et des normatives surindividuelles, intériorisées par le sujet, qui se actualisent dans tout acte de valorisation. Il entraîne les aspects relativement stables, consubstantiels de l'individu (traits de personnalité, degré de culture etc) et aussi les éléments variables concernant le contexte de la valorisation (climat socioculturel, cadre idéologique ou éléments accidentels)» (2000, p. 44). Alors cet référentiel qui assure à l'individu autonomie et compétence axiologique, lui-même une valeur culturelle acquise, s'institue par l'assimilation individualisée des repères valoriques désirables à un moment donné, mais reste cependant perméable aux nouveaux stimuli culturels, aux nouvelles adaptations.

Un but fondamental de l'éducation pour la citoyenneté dans une société démocratique est la promotion de la «culture de la démocratie» et des compétences qui font possible l'exercice effectif du statut de citoyen. La citoyenneté est liée au contexte, dans le sens qu'elle peut avoir simultanément un contenu culturel divers déterminé par de mentalités et des identités différentes. On souligne toujours, au niveau de différentes types de discours, l'importance de l'identité de l'individu, pour

laquelle le component culturel est très important. Ce component pose le problème de la qualité de membre de certains groupes, communautés, peuples, qui construisent l'identité de chaque individu et qui représente un héritage et aussi une perspective des futures évolutions. Les droits culturels, justifiés par la nécessité de respecter la diversité, sont considérés comme une nouvelle génération des droits de l'homme, après les droits civiques, les droits politiques, les droits économiques et ceux sociaux.

II. Le contexte du pluralisme socioculturel

Les recherches des psychologues et des sociologues, mais aussi l'expérience quotidienne prouve que les hommes sont différents, ont des besoins, intérêts, points de vue et conceptions différentes. Par extension, on peut dire que leurs groupes d'appartenance aussi présentent de telles caractéristiques. A l'intérieur de chaque société coexistent des communautés différentes comme coutumes, normes et valeurs. Une société dominée par un système politique totalitaire (autoritaire) est moniste. Elle est dominée par un centre d'autorité unique et vaste sur l'aspect normatif, qui établit la modalité dont les hommes doivent vivre et les buts qu'ils doivent poursuivre. Dans les sociétés pluralistes les influences viennent, d'une manière légitime, de la part d'une multitude de facteurs : la famille, la communauté locale, la culture traditionnelle, la sphère politique, etc. les hommes ont le droit d'être différents, et les systèmes sociaux qui respectent l'être humain prennent soin de ne pas limiter la diversité, parce que le conformisme, l'homogénéisation, l'uniformisation sont considérés comme des traits négatifs (J. Karpinski, 1993). Les sociétés démocratiques sont celles qui assurent les conditions optimales pour la manifestation de la diversité, du pluralisme social, culturel et politique. Les citoyens ont la possibilité de choisir le meilleur pour eux et ce qu'ils considèrent justifié à suivre comme principes et façons de vivre.

Bien que le pluralisme représente une valeur fondamentale des sociétés démocratiques, sa signification reste encore confuse et loin d'être suffisamment théorisée. Les différents aspects culturels, politiques et sociaux pris en considération par les théoriciens augmente sa complexité et rendent difficiles les essais de la surprendre. On pourrait dire par exemple que dans une société démocratique le pluralisme semble être une question de l'hétérogénéité et de mobilité socioculturelle, de différenciation entre segments culturels ou de consolidation des identités culturelles des quelques communautés ethniques. Pour H. Eckstein (1966), une société plurielle est divisée par des «clivages segmentales» de nature religieuse, linguistique, idéologique, culturelle régionale, raciale ou ethnique. Les partis politiques, les groupes d'intérêt, les medias, les associations volontaires et même les écoles ont la tendance de s'organiser au long de limites entre ces «clivages segmentales».

Des nos jours, la création d'une sphère publique pluraliste est de plus en plus dépendante de la cultivation de la diversité et du pluralisme au niveau international, parce que toutes les sociétés sont de plus en plus affectées par les fluxes d'information et de communication sur lesquelles tout état a seulement un

contrôle limité. Accepter la pluralité des cultures et des discours constitue une dimension essentielle de la condition postmoderne. Au centre de la culture postmoderne se trouve l'accepte du caractère pluraliste des expériences sociales, des identités et des standards de vérité ou de correction morale. L'existence de la diversité de valeurs et de pratiques culturelles ne garantit pas par soi-même la légitimité du pluralisme, parce qu'il est possible que les différences sociales ne lui soient dues. Plutôt on peut affirmer que le pluralisme existe, au vrai sens du mot, seulement quand les différences culturelles se trouvent au niveau d'un système de pratiques sociales institutionnalisées, qui séparent les groupes entre eux dans la formation de l'organisation d'état. Une clarification synthétique de la signification du terme pluralisme dans le contexte de la société contemporaine est offerte par McLennan, pour lequel «...le pluralisme indique, parmi d'autres, une attitude humble et relativiste d'accepter le fait qu'il y a une multitude de valeurs culturelles; le rejet de toute forme d'impérialisme culturel, le libération de mains mortes du scientisme et rationalisme illuministe, une féconde diversité méthodologique, le support des différentes modalités de connaître et d'être; créativité et ouverture dans le cadre de la théorie, faire attention, sur la scène de la politique moderne, à une gamme vaste d'intérêts sociaux et intérêts de groupes, parce qu'il ne peut démontrer sur aucun qu'il soit primordial dans un certains sens; soutenir la démocratie comme but en soi-même; faire attention à la complexité des croyances politiques, le sentiments que nous plutôt héritons de nos identités sociales et politiques que les choisir; des horizons politiques anti-utopiques, le garde du principe égaux mais différents (1998, p. 31). Ainsi la pluralité semble être devenue un phénomène global de la vie postmoderne, indétectable au niveau de la formation des concepts, attitudes et pratiques sociales des institutions de la société civile.

Selon le pluralisme socioculturel existent et se manifestent de nombreux types de relations sociales importantes, de nombreuses subcultures, identités et egos multiples. Le pluralisme politique promouvoit l'attachement pour la diversité dans l'organisation politique: la reconnaissance de la différence socioculturelle, sa facilitation et représentation dans toutes les structures importantes de prise de décision. Ce que G. McLennan veut démontrer est synthétisé, par lui-même, dans la conclusion suivante: le pluralisme n'est seulement un riche filon de la pensée scientifique sur la société, mais aussi une expression importante de la condition intellectuelle et morale de l'homme qui vit dans les sociétés démocratiques contemporaines. La reconnaissance et l'acceptation du pluralisme signifie traiter la société et tout ce qui se passe à son intérieur comme diversité, multiplicité, hétérogénéité, signifie un déplacement de l'accent du discours axé sur ce qui est abstrait, général et universel vers le discours qui approfondit ce qui est concret, particulier, spécifique, contingent, contextualisé et en changement continu. Les anciennes croyances au centrisme social, au déterminisme économique, à l'horizon culturel eurocentriste, au conservatisme psychique et sexuel sont inadéquates pour les sociétés contemporaines de type démocratiques, ou tout prise de position est

regardée comme une option et pas comme une dogme exclusiviste. Il n'y a plus des vérités absolues, mais seulement de points de vues plus ou moins plausibles, plus ou moins convaincant, en fonction de situation de la subjectivité de chacun.

III. Le multiculturalisme, la citoyenneté et l'éducation

C'est le discours de la modernité tardive qui présente, reconnaît, interprète et re-évalue l'expérience sociale de la diversité et des différences. Dans la construction de l'identité sociale, le multiculturalisme s'oppose aux stratégies homogénéisantes de la modernité, considère oppressive et met l'accent sur les différences et la diversité. Ch. Taylor (1994) a mis en discussion le problème de politiques de reconnaissance, attiré premièrement, par l'explication des sens la conservation ou de l'acquisition en mode égale, au delà de la diversité et des différences, de la dignité par tous les hommes dans la société contemporaine. Il prête une attention spéciale à la théorie des différences, constatant que les distinctions ont été souvent ignorées, négligeant ainsi l'idéal d'authenticité. Taylor notait, au même temps, que, de la même manière, il est devenu possible le processus d'assimilation à l'identité dominante ou majoritaire. Dans le cas des communautés qui revendiquent l'application du concept de multiculturalisme, la tendance fréquemment rencontrée (certes, plus dans les démocraties occidentales) est de tenir compte de références sociales politiques locales.

Une société démocratique multiculturelle se caractérise par les traits suivants:

- a) la coexistence dans le même espace des différentes groupes culturels, ethniques, nationales, religieux;
- b) la compréhension et l'accepte des différences comme modalité d'éviter la discrimination;
- c) des relations d'interaction basées sur la reconnaissance réciproque des valeurs et du façon de vivre;
- d) des relations équitables basées sur équité et tolérance active.

Quand on parle de multiculturalisme on ne fait pas référence exclusivement au communautés ethniques. Grâce au système mass media une multiplication étonnante de *Weltanschauunge*, des visions sur le monde s'est passée dans un temps relativement court. Des minorités de tous le types prennent la parole et présentent aux autres des cultures et de subcultures les plus diverses. Cette pluralisation rend possible la conception du monde selon des points de vue unitaires. Le monde de la communication généralisée «explose comme une multiplicité des rationalités locales», selon le philosophe G. Vattimo (1995). Les minorités ethniques, sexuelles, religieuses ou culturelles ne peuvent pas être réduites à la silence, ne peuvent plus être réprimées par l'idée qu'il y a une seule forme d'humanité à réaliser, au détriment des particularités, des individualités limitées, éphémères, contingentes. Cette libération des diversités est un acte par lequel les minorités prennent la parole et se présentent aux autres, ainsi qu'elles se rendent reconnues et acceptées.

Les prêcheurs de la philosophie du multiculturalisme pensent que toutes les cultures doivent jouir de l'intégrité, de bénéficier du respect, de n'être pas marginalisées ou soumises à l'oppression par les cultures dominantes. Selon cette idée, les idéaux personnels ou des sociétés sont premièrement des idéaux des cultures particulières, elles sont des aspirations liées aux traditions locales et se basent sur la capacité de conserver le habitat hérite des générations précédentes. L'idéologie du multiculturalisme représente une pensée fondée sur des traits psychologiques distinctes des communautés régionales, nationales, sexuels ou raciales. Quand il avait étudié le problème du multiculturalisme, Taylor avait eu en vue l'idée selon laquelle les politiques des différences se développent organiquement et en extérieur de celles concernant la dignité universelle. En prenant comme repère la société américaine, il allait avancer l'hypothèse selon laquelle l'organicit  culturelle est capable d' liminer les conditionnements socio- conomiques.

Il y a une pluralit  des cultures et aucun crit re objectif ne nous permet d'affirmer que l'une est sup rieure   l'autre. L'id ologie du multiculturalisme promouvoit le soutien des communaut s dans l'affirmation des leurs cultures diff rentes. Cette chose ne signifie que le multiculturalisme s'oppose au changement. Le multiculturalisme lib ral reconna t que le changement dans le monde contemporain est in vitable, donc le but de cette politique n'est pas la conservation des cultures   leur  tat primaire. Il surgit du d sir de succ s des membres de la soci t , et ce succ s d pend du respect pour la prosp rit  de diverses groupes culturels. Le multiculturalisme demande du respect et de la j'appr ciation de la part des individus et des groupes pour d'autres groupes dans la soci t , demande la tol rance d'une communaut  pour l'autre communaut  et, au m me temps, demande le droit de l'individu de quitter son groupe culturel pour rejoindre un autre.

Le multiculturalisme se manifeste par h t rog nit , par des diff rences culturelles, d'identit  et politiques. Les innombrables groupes r duits au silence essayent d'obtenir leur reconnaissance: minorit s ethniques, les femmes (mouvements f ministes), minorit s sexuelles. Le terme de multiculturalisme n'a pas un entendre clairement  tabli. Il peut faire r f rence   la pluralit  des groupes culturels distinctes ou aux conceptions sur les diff rences culturelles et, au m me temps, sur les r ponses politiques et individuelles donn es aux ces probl mes.

Tout discours qui assume les exigences de la modernit  tardive va rapprocher la notion de multiculturalit  comme  tant corr lative avec celle de interculturalit . Une culture sort en  vidence quand elle est rapport e aux autres, un rapport qui peut signifier des transferts valoriques qui engendrent de nouvelles pratiques, en devenant ainsi une source d'enrichissement r ciproque. Dans une soci t  multiculturelle les individus ont la possibilit  de s'alimenter de registres valoriques de plusieurs directions, de s'inscrire aux plusieurs appartenances d passant ainsi les particularit s qui risquent de devenir de st r otypies. Les s parations et les cl tures r ciproques, d voil es de f condit  et qui engendrent de conflits peuvent  tre d pass es par la connaissance, la compr hension, l'accepte et

le respect pour la culture de l'autre. Abordant le problème de la communication culturelle, C. Cucos (2000) montre que celle-ci présuppose deux composants : la communication personnelle et la communication sociale. La première demande une certaine compétence de la part des individus structurée sur trois dimensions:

- a) cognitive (la capacité de connaître les créations appartenant à la culture avec laquelle on établit le contact, l'histoire, les traditions, les institutions, les croyances, les conceptions, les mœurs et les modalités de relation spécifiques aux ceux qui lui appartiennent);
- b) affective (la disponibilité d'adaptation interculturelle par la preuve de la capacité, émotionnelle et motivationnelle d'empathie avec les autres);
- c) opérationnelles (la capacité de l'individu d'agir d'une certaine manière, d'expérimenter des conduites interculturelles positives etc).

La communication interculturelle est un échange valorique qui, plus il devient profond, plus la connaissance et l'accepte de ceux appartenant aux autres cultures obtiendront de nouvelles dimensions.

La citoyenneté multiculturelle ne doit pas être interprétée comme une citoyenneté proprement dit, qui implique des droits et des devoirs pour un certain état. La citoyenneté multiculturelle expriment plutôt une appartenance (qui peut être basée aussi sur la choix individuelle) a un certains groupe, ce qui n'exclut pas le respect et la tolérance vers d'autres groupes (culturels, ethniques, politiques, religieux, sexuels) de la même société.

Le civisme multiculturel est un concept associé a la diversité ethnoculturelle de l'intérieur des démocraties libérales et qui désigne un nouveau type de participation civique. Cela suppose l'accommodation des groupes minoritaires dans l'ensemble de la société majoritaire, un changement dans les termes de la reconnaissance de la pluralité d'identités ethniques, religieuses, culturelles, de race, de genre etc. ce type d'hypostase du civisme promouvoit l'égalité entre groupes, la liberté a l'intérieur de chacun et la materiasation de la différence dans la vie sociale, économique et politique. Alternative du processus de construction de la nation, le civisme multiculturel considère périmée l'évaluation des chances des citoyens dans la société seulement en fonction de l'appartenance a une certaine ethnie ou culture sociétale. Dans ce contexte, chaque individu ou groupe dispose de la liberté de participer dans la société civile de la manière que sa propre identité ethnoculturelle impose.

La multiculturalité des sociétés modernes engage des problèmes de compréhension des différences, de respect du désir de conservation des identités culturelles, de besoin de la connaissance et du respect d'autrui. Dans une telle perspective, l'éducation pour citoyenneté démocratique doit s'assumer un double but:

- a) rendre les jeunes capables a reconnaître l'inégalité, l'injustice, les stéréotypies et les préjugés;
- b) transmettre aux jeunes les connaissances et de leur former les compétences nécessaires, pour leur permettre de réagir positivement a ces attitudes quand ils s'y confronteront en société.

L'identité a beaucoup de facettes, qu'on découvre en se rapportant aux autres et qui sortent de rôles multiples et des situations contextuelles dans lesquelles on agit. Acceptant cette multiplicité de l'identité personnelle on peut comprendre celle de l'autrui. Il y a une infinité de formes d'expression des différences sous l'aspect de la façon de compréhension des facteurs impliqués dans l'éducation, de la conception de l'activité de formation initiale et surtout continue, différences exprimées dans des modalités de penser et d'interpréter, dans des comportements quotidiens de travail, alimentation, vêtements, mentalités, en ce qui concerne la vie privée, avec ses problèmes familiaux, sexuels, de natalité et d'éducation des enfants.

Le concept d'éducation multiculturelle désigne la totalité de programmes éducationnelles qui répondent aux nécessités imposées par la coexistence dans un milieu multiethnique. Son but est de faciliter la connaissances des groupes ethnoculturels minoritaires et par conséquent, l'accommodation et l'ouverture de la société majoritaire aux modèles culturels spécifiques aux groupes minoritaires. La construction européenne, comme processus a la réalisation duquel notre pays veut apporter sa contribution, présuppose une interdépendance de plus en plus accentuée entre nations, ce qui implique de nouvelles orientations des politiques éducationnelles, explicitées au niveau des documents curriculaires: «une nouvelle citoyenneté européenne n'est plus une utopie des nos jours, et l'école est appelée a préparer les élèves pour pouvoir devenir citoyens compétents dans l'espace auquel nous voulons appartenir. Les nouvelles dimensions de la citoyenneté mettent au premier plan le valeurs, les objectifs et les stratégies de l'éducation multi – et interculturelle, comme moyen de valorisation positive des différences et d'enrichissement réciproque, par la connaissance d'autrui, a l'intermédiaire des échanges et de la coopération basée sur respect réciproque» (D. Georgescu, 1999, p. 189). Tout programme éducationnel qui prend en considération l'idée de multiculturalisme doit se fonder sur le principe de l'élimination de la dichotomie entre la culture des majoritaires et la culture des minoritaires, en faveur de d'une conception plus élargie sur la diversité culturelle et sur l'ouverture de la société contemporaine. L'idéologie du multiculturalisme promouvoit la reconnaissance de la variété culturelle existante dans une société et une série de démarches qui peuvent être faites pour la conservation et la valorisation de la spécificité.

IV. Conclusions

L'ouverture vers d'autres cultures représente une des possibles orientations de l'éducation pour la citoyenneté démocratique, et l'école représente une lieu propice pour harmonisation culturelle, demandée par la perspective de la construction de l'espace européen communautaire, mais aussi par le phénomène de la globalisation de l'économie, de la technologie et des informations. Par conséquent, on doit développer aux élèves la capacité de reconnaître des codes culturels différentes, de communiquer dans un contexte interculturel, d'affirmer leur propre identité sans être en proie des stéréotypies et des préjugées, de comprendre

les particularités de la vie quotidienne des divers pays. L'éducation pour la citoyenneté démocratique a le rôle de diriger l'attention des jeunes vers l'expérience d'autrui vers leur propre identité, et aussi vers les valeurs humaines universelles. Une démarche adéquate faite dans ce sens doit se baser sur la reconnaissance du fait que l'appartenance d'un individu a une communauté n'est pas équivalente avec son identification complète avec la communauté respectives, sur l'idée d'égalité des opportunités éducationnelles pour tous les groupes de l'intérieur de la société, sur la promotion des membres des groupes ethniques minoritaires dans la qualité de pédagogues, sur une innovation curriculaire qui prend en considération les particularités communautaires. L'éducation peut être considérée, grâce a ses démarches antiracistes, anti-xénophobes, anti-discriminatoires et de relativisation des cultures existantes, le garant d'une société multiculturelle viable, facteur de stabilité démocratique et de diminution de la conflictualité.

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LA TRANSITION D'ENSEIGNEMENT ROUMAIN DE L'ÉLITISME ET INTELLECTUALISME À UNE ÉDUCATION DE BASE POUR TOUS. QUELQUES CONSIDÉRATIONS SUR LES PROGRAMMES ET LES MANUELS DES GYMNASES ET DES LYCÉES

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ABSTRACT. From several years Romanian educational system is engaged in a large reform process, first of all about the restructure of educational content at many levels such are: scholar programs, manuals, and also the innovation of didactic methodology and evaluation system. This article means to emphasize the most important ideas which are the basis of entire conception about reform and their goals. Educational system must do not prevailed by abstract contents despite the formative aspects, it is necessary to surpass the encyclopedic knowledge, difficult to accomplish in our days, to a culture of a contextualized action. Despite numerous changes in latest years, the Romanians educational reform continued, because of many factors which maintain discountenance of desideratum. Characteristics of old educational system like: conservationism, self-centered, excellency, intellectualism, elitism, depersonalize and inequality of chances still remained present in new configuration.

Keywords: elitism, intellectualism, reforming the curriculum.

ZUSAMMENFASSUNG Die Verwandlung des rumänischen Schulsystems von **Elitismus und Intelektualismus zu einer einheitlichen Grunderziehung. Eine Kurzfassung über Programme und Schulmaterial für Grundschulen und Gymnasien.** Das rumänische Schulsystem befindet sich seit Jahren in einem Veränderungsprozess der Erziehungsmethoden. Diese Restrukturierung betrifft in erster Linie das schulische Curriculum, die Schulbücher und nicht zuletzt die Benotung. Dieser Artikel handelt von Grundideen der Restrukturierung und von den wichtigsten Zielen. Die allgemeine Meinung ist, dass das Schulsystem nicht die abstrakten Werte propagieren, sondern für ein Allgemeinwissen in einem verständlichen Kontext plädieren. Obwohl im rumänischen Schulsystem viele Veränderungen stattgefunden haben, gibt es immernoch Bereiche die sehr kritisch betrachtet werden sollten. Die significanteste Veränderung kann man in der Restrukturierung und Modernisierung des Schulsystems erkennen. Leider immer noch zu spüren sind die Werte des alten Schulsystems wie: Konservatismus, Elitismus, Egozentrismus, Exklusivismus, Intelektualismus, Depersonalisierung, Chancenungleichheit.

Schlüsselworte: Elitismus, Intelektualismus, Reformierung des Curriculums.

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Introduction

Les transformations profondes qui se passent dans la société contemporaine imposent à l'institution scolaire de nouvelles exigences d'éducation de la jeune génération. En s'assurant les responsabilités de formation des citoyens, l'école doit s'adapter toujours, par des projets curriculaires novateurs, aux changements économiques et sociaux rapides, qui influent d'une manière décisive sur la conception sur le rôle du système d'enseignement. Après 1989, la réforme de l'enseignement en Roumanie a été une des priorités déclarées de tous les gouvernements qui se sont succédés. Jusqu'à présent, un grand nombre de changements législatifs, institutionnels et de contenu ont été faits. Par conséquent, l'enseignement roumain est orienté maintenant vers le développement d'une personnalité autonome, dynamique et créative, fixée dans les réalités sociales. Pour sa réalisation, l'école doit s'assumer ces objectifs formatifs, par la réalisation desquels l'individu est conduit vers une intégration rapide et efficace dans la société.

Dans tout processus de réforme de l'enseignement, les réflexions sur l'élaboration d'un nouveau curriculum occupent une place centrale. D'ailleurs, les réformes actuelles de divers pays se déroulent principalement dans la zone curriculaire ou impliquent inévitablement des aspects concernant le Curriculum. Au premier plan se trouvent l'actualisation et la modernisation du contenu de l'éducation, au niveau des programmes scolaires et des manuels, mais aussi l'innovation de la méthodologie didactique et du système d'évaluation.

Malgré les nombreux changements faits, la réforme de l'enseignement roumain continu, les causes qui empêchent la réalisation des desiderata n'étant peu nombreuses. Même si les succès dans la restructuration et la modernisation sont significatifs, des caractéristiques de l'ancien système d'enseignement, comme le conservatisme, l'auto centrisme, l'exceptionnalisme, l'intellectualisme, l'élitisme, la dépersonnalisation et l'inégalité des chances, sont encore présentes.

I. Quelques directions de l'innovation curriculaire

On a considéré longtemps qu'un homme instruit est celui qui possède un grand volume de connaissances dans de divers domaines, un « encyclopédiste ». On négligeait le fait que toutes les habitudes de « savoir faire » et « savoir être » contribuent à la configuration du profil de personnalité qu'on veut éduquer chez élèves. L'éducation intellectuelle a été souvent regardée d'une manière unilatérale, comme une accumulation d'information, étant parfois identifiée avec l'instruction ou l'apprentissage. Selon cette vision, l'apprentissage se limitait dans une grande mesure à l'enregistrement, le maintien et la reproduction des connaissances considérées par le professeur, nécessaires pour la formation de la culture générale des élèves. Leur raisonnement et leur action étaient orientées et dirigées rigoureusement de l'extérieur, l'activité éducative se déroulant sous la forme « sermon-interrogatoire ». On n'encourageait pas suffisamment la recherche et la découverte,

la réflexion personnelle et la créativité, mais l'éternel exercice reproductif. L'expérience de vie des élèves et le quotidien concret étaient ignorés.

La surévaluation des connaissances dans une certaine période au détriment de la formation complexe de la personnalité n'a pas attardé de montrer les effets négatifs c'est-à-dire la rupture entre l'enseignement et la réalité, la considération de l'éducation intellectuelle comme supérieure aux autres aspects de l'éducation et la formation des gens unilatérales et incapables de s'adapter facilement aux demandes sociales (D. Salade, 1995, p. 56). Les auteurs d'anciennes programmes et manuels scolaires partageaient « le mythe intellectualiste », selon lequel on doit assurer aux élèves une culture générale plus étendue que possible du point de vue quantitatif, considérant que celui qui tient les informations peut aussi opérer avec eux à un niveau acceptable. Cette conception a engendré dans certains cas des performances supérieures, mais au niveau de la masse d'élèves ont enregistré de grands échecs.

Par l'enseignement et l'apprentissage des diverses disciplines scolaires on vise, comme on l'affirme dans les documents curriculaires, le développement des capacités intellectuelles, des compétences de communication, de relation et de participation efficiente dans la vie sociale, économique et politiques, indispensables pour l'assumption par les élèves des expectations de rôle à la part de la société. Par exemple, dans *Programmes scolaires pour les classes V- VIII. L'aire curriculaire Langue et communication* on montre que le but pour étudier la discipline *La langue et la littérature roumaine* dans le cycle gymnasiale est de former un jeune homme à une culture communicationnelle et littéraire de base, capable à comprendre le monde, à communiquer et inter actionner avec les siens, à utiliser efficacement et créatif ses capacités pour résoudre des problèmes concrets de la vie quotidienne, pouvoir continuer le processus d'apprentissage en toute phase de son existence, être sensible à la beauté dans la nature et à celle créée par l'homme. L'étude de cette discipline est orientée d'une manière prioritaire vers le développement aux élèves des développement des compétences de communication, par le développement des capacités de réception et d'expression des messages orales et écrits, par la familiarisation avec des diverses situations de communication orale et écrite, avec des textes littéraires ou d'autre nature, adéquats à l'âge.

Si on définit l'apprentissage comme « le processus de préparation pour faire face aux nouvelles situations » (I. Neacșu, 1990, p. 16), alors on peut considérer que la récente réforme curriculaire dans l'enseignement roumain a été nécessaire, pour répondre aux transformations économiques sociales complexes de notre pays. Dans ce sens, la restructuration du processus éducationnel dans toutes ses sphères et articulations, a apportée au premier plan la dimension informative de l'instruction, une instruction capable à préparer les élèves de telle manière qu'ils fassent la preuve de compétences fonctionnelles, adaptabilité, responsabilité, initiative et créativité, des caractéristiques considérées essentielles dans le développement de leur personnalité. Son impacte modelleur doit se concrétiser dans des personnalités ainsi formées, qu'elles correspondent aux exigences d'ordre culturel, scientifique,

professionnel et moral civique. Tout Curriculum scolaire pertinent projette ces exigences formatives au niveau des programmes scolaires, imposant des objectifs éducationnels adéquats à l'évolution de la société.

La vision curriculaire qui a été à la base de l'élaboration de nouvelles programmes scolaires a orienté la pratique de l'enseignement et de l'apprentissage en rapport avec « objectifs de formation qui visent des compétences de niveau supérieur, de l'application des connaissances et des compétences dans de nouveaux contextes et de résolution des problèmes théoriques et pratiques» (A. Marga et D. Georgescu, 1999, p. 3). D'une telle perspective, les contenus ne deviennent moins importants, mais ils sont considérés des véhicules pour la formation des compétences intellectuelles et relationnelles de niveau supérieur, des attitudes et des comportements nécessaires à un jeune homme dans une société démocratique de notre temps.

Une projection curriculaire dans la perspective de l'éducation qui réalise efficacement une fonction sociale implique une réadaptation continue des objectifs, contenus et stratégies d'action, comme dépassement ou renouvellement des modèles ou des principes considérés désuets. De cette manière seulement on peut promouvoir un profile de formation adéquat à un monde à un changement rapide.

Les objectifs éducatifs ne visent seulement l'acquisition des connaissances, mais surtout le rapport réflexive, critique et créatif à celles-ci, le développement des capacités intellectuelles (l'analyse, la synthèse, la généralisation, l'abstractivité, la définition, l'interprétation, le résumé), le développement des habiletés, des habitudes et des attitudes positives. Certes, les enfants assimilent des connaissances factuelles dans une forme verbale relativement fixe, les gardent et les reproduisent quand on le leur demande, mais telles acquisitions ne sont pas suffisantes pour pouvoir considérer que l'instruction souhaitée s'est produite. Il est plus important ce qu'ils peuvent faire avec les conséquences acquises, la manière dont ils les traitent pour pouvoir résoudre des problèmes. Alors l'apprentissage ne suppose seulement l'acquisition des connaissances, mais aussi la construction d'un système interne de coordination, qui donne la possibilité de développer les opérations mentales.

L'acquisition des connaissances par l'apprentissage scolaire n'est plus considérée un but en soi-même, étant liée plutôt à la formation et le développement des compétences et des attitudes désirables au plan social. Les connaissances ne deviennent pas du tout sans importance, mais l'apprentissage scolaire présuppose plus que la simple acquisition des concepts et des dates factuelles offertes par des diverses sciences. L'apprentissage scolaire représente un processus de nature formatif informative, dans le sens que le but poursuit n'est plus celui d'obtenir une culture générale de type encyclopédique, mais d'aboutir à l'acquisition d'une « culture fonctionnelle», adaptée aux intérêts du moment ou de perspective. Les nombreuses analyses faites dans les sciences de l'éducation sur le rapport entre l'informatif et le formatif dans l'éducation des élèves ont donné gain de cause au second aspect. Par conséquent, le Curriculum scolaire en Roumanie a modifié la hiérarchie des objectifs de la triade classique: 1) connaissances; 2) habiletés et

habitudes; 3) compétences et attitudes, qui a longtemps orienté le processus instructif-éducatif. Ont devenues prioritaires les compétences et les attitudes, suivies par les habiletés et les habitudes et puis l'acquisition des connaissances. Cette conception a mené à l'élaboration des programmes scolaires qui permettent la centralisation du processus éducatif sur la formation et le développement des compétences fonctionnelles de base. En feuilletant une de ces programmes on apprend que « Le desideratum qui s'impose à être considéré vise la dotation de l'élève à un ensemble structure de compétences de type fonctionnel. Ceux-ci marquent le passage de l'encyclopédisme de la connaissance impossible à atteindre dans les conditions d'aujourd'hui, à une culture de l'action contextualisée, qui suppose l'application optimale des techniques et des stratégies adéquates (*Programme scolaire pentru clasa a X-a*, 2000, p. 5). Dans les programmes scolaires sont prévues seulement les connaissances essentielles à apprendre, ainsi qu'on évite le sur chargement informationnel, qu'on puisse faire face au rythme rapide d'augmentation de la connaissance humaine et, au même temps, qu'on puisse réaliser les objectifs de nature formative. Les compétences et les habitudes se forment aussi par le processus d'assimilation et application des connaissances, à cause de cela il est absolument nécessaire la corrélation des contenus avec ces buts formatifs.

Comme on a montré antérieurement, le desideratum de l'école moderne est de former l'individu et pas seulement de l'informer, ce qui suppose un déplacement d'accent de contenu de l'enseignement sur ses objectifs et ses tâches formatives. Autrement dit, un passage de l'enseignement axé sur les connaissances à l'enseignement qui articule les connaissances, les compétences et les attitudes dans une structure formative complexe (G. Văideanu, 1996).

L'acquisition des connaissances essentielles véhiculées par l'enseignement des diverses disciplines scolaires est sûrement importante. Mais le développement de la personnalité n'est pas seulement une accumulation d'informations, suivie par un exercice reproductif, et, à une grande mesure, affecté par l'oubli. Il implique la formation des capacités et des habiletés intellectuelles (l'orientation dans la bibliographie, la recherche et obtenir indépendamment l'information, l'utilisation de celle-ci dans la résoudre des problèmes), la construction des stratégies de pensée et d'action, le développement des attitudes moral civiques, le développement des compétences de communication, de transfert et d'application des connaissances dans la résolution des problèmes, de rationnement et de prise des décisions.

II. Réticences, inadvertances, difficultés

Même si on ne peut pas minimaliser les progrès enregistrés dans la réorganisation et innovation des programmes curriculaires et manuels scolaires, l'enseignement roumain n'arrive encore à assurer pleinement l'évolution de l'identité personnelle de l'élève par intégrité, auto affirmation, réciprocité, habiletés comportementales. Pour l'achèvement des études gymnasiales, les élèves doivent faire la preuve de l'acquisition d'une culture comprise plutôt impersonnellement

que fonctionnellement. De plus, cette culture qu'ils sont déterminée à acquérir dépasse par sa complexité ce que doit savoir une personne qui achève ses études à cet niveau. À la fin du lycée, les élèves passent un examen de baccalauréat homogène, avec des épreuves axées trop sur mémorisation, reproduction fidèle, raisonnement algorithmique. Les connaissances demandées par les 7 épreuves représentent un but eux-mêmes, leur utilisation contextuelle étant moins visée. Or la culture générale ne peut plus être envisagée comme un ensemble clos et rigide de certitudes et de solutions définitives, acquises par une simple accumulation de notions, idées et théories, mais plutôt comme une orientation et une formation qui réorganise l'information, la valorise et la rafraîchit.

L'action éducative ne se résume seulement à conduire les élèves vers l'acquisition des connaissances. La simple connaissance de principales dimensions conceptuelles et thématiques des divers domaines de manifestation de l'esprit humain n'est pas suffisante sur l'aspect éducatif. Il est nécessaire le développement du raisonnement divergent, capable à opérer d'une manière interprétative et créative, l'acquisition des capacités qui permettent à l'élève d'obtenir indépendamment des connaissances, leur traitement et leur utilisation, la formation des attitudes désirables dans la perspective de la vie sociale actives. La signification actuelle du concept pédagogique de culture générale désigne, en plus d'un certain volume de connaissances acquis, un ensemble de compétences et d'attitudes, qui complètent l'horizon formatif de la personnalité de l'élève.

Du Curriculum à l'évaluation des performances des élèves, l'enseignement roumain reste en grande mesure élitiste. Les manuels contiennent encore une grande quantité d'informations. Les programmes et les manuels sont conçus ainsi qu'ils sélectionnent une minorité et qu'ils ratent la chance de réalisation complète de plusieurs élèves. Les prix représentent un but en eux-mêmes pour toute école. Les rapports du Ministère de l'éducation indiquent un grand nombre d'élèves médiocres, d'abandon scolaire et de redoublement. Ces rapports posent le problème comme chiffre statistique et puis l'anéantissent au niveau des causes et des solutions.

La passe sur la classe supérieur à l'examen de capacité, passé par les élèves après la fin de 8^e en trois disciplines (mathématiques, roumain et une discipline à option entre l'histoire et la géographie) et qui conditionne l'accès au lycée, a été de 76,89% en 2006 et de 80,86% en 2007 (<http://www.edu.ro>). Les résultats de l'examen de baccalauréat au fin lycée sont similaires. Dans la session juin juillet 2006 le percent du passer a été de 19,53%, et parmi ceux qui ont passé l'examen 13,08% ont eu des moyennes situées entre 6-6,99 (6 étant la note minime pour passer l'examen). Les pourcentages peuvent être satisfaisants pour ceux qui administrent le système d'enseignement, mais ils démontrent qu'une bonne partie d'élèves ont échoués.

De l'analyse des manuels de gymnase et de lycée on a constaté que dans leur élaboration on tient compte plus des contenus proposés par la programme et moins des objectifs, surtout des objectifs d'ordre formatif. Bien que les objectifs

d'ordre formatif prévus dans les programmes sont généreux et plusieurs d'eux ont un caractère transdisciplinaire, sont trop peu les démarches explicites des manuels pour la réalisation de ceux-ci. Ils sont laissés sur le compte d'une réalisation implicite, comme une conséquence de la réalisation des objectifs d'ordre informatif.

Les programmes et les manuels scolaires ont eu en vue surtout l'intelligence logicomathématique et verbale et trop moins celle intuitive, relationnelle, communicative, empathique, affective-émotionnelle, artistique. Leurs auteurs partagent encore « le mythe intellectualiste », selon lequel la seule faculté mentale véritable soit celle rationnelle. Les systèmes d'évaluation sont axés excessivement sur la mémorisation et sur les capacités déductives, contribuant à la création des cohortes « d'élèves médiocres », dont les facultés mentales différentes ne sont pas mises en évidence suffisamment. Un homme instruit est considéré celui qui est fidèle et conformiste dans la reproduction des connaissances. L'évaluation est de type constatif et pas qualitatif au progrès individuel. Elle se réduit souvent à la notation de type récompense punition.

L'élitisme et l'exceptionnalisme sont le produit, pas nécessairement intentionné, du surchargement, de l'intellectualisme hypertrophié et des critères d'évaluation. Ils produisent et sont produits par le penchant des facteurs de décision de se mettre les mains sur les yeux face aux situations inconvenables, en perpétuant le triomphalisme non critique. Leur fierté croît et décroît selon le nombre de prix et de médaillés aux Olympiades internationales. Ils s'intéressent profondément aux matières d'étude avec des prix aux Olympiades, à l'énumération de médailles, et moins aux causes de l'abandon scolaire ou au fait que après l'achèvement d'études les jeunes grossissent le nombre de chômeurs ou ils ont des carences sur l'aspect de la formation civique.

L'étude signifie de l'effort, mais pas n'importe quel effort, mais un effort torturant, docile et humilié, matérialisé dans la capacité de résister tranquillement et concentré à sa place un grand nombre d'heures. Un grand nombre d'heures demande la résolution de devoir à la maison. Comment pourrait-il apparaître, dans telles conditions, le plaisir d'apprendre? Dans le collectif scolaire, le plaisir d'apprendre devrait arriver du contenu thématique, de la forme d'activité, de la coopération collégiale, de l'accès au partage de la propre expérience avec les autres, du rôle facilitateur du professeur, de la labilité des limites entre ce que les élèves doivent étudier et ce qu'ils veulent étudier. Mais dans beaucoup de cas, les élèves n'apprennent pas pour l'utilité d'apprendre, parce qu'ils ne se retrouvent eux-mêmes et leur monde dans les programmes et les manuels scolaires. On arrive ainsi à un enseignement qui est aliénateur par ses priorités : le devoir est plus important que le développement personnel, la programme plus importante que les élèves, les connaissances abstraites plus importantes que celles applicatives, les habiletés théorique- discursives plus importantes que celles comportementales, l'information plus importante que la formation. Les élèves apprennent trop peu, dans le Curriculum officiel, sur eux comme personnes. Les disciplines d'étude sont

axées sur les problèmes abstraits, introuvables dans l'expérience directe. Ainsi il arrive que, après de plusieurs années d'étude de la physique et de la chimie, beaucoup d'élèves qui ont fini le lycée ne peuvent pas expliquer les phénomènes physico-chimiques à impacte directe, comme il arrive que, après l'étude de l'anatomie, ils continuent à pas connaître ou pas protéger leur organisme. Dans les programmes et les manuels d'histoire sont introduits des thèmes dont on considère que le contenu scientifique peut être valorisé de la perspective de la vie privée: l'homme préhistorique (outils, armes, occupations), l'homme médiéval ou l'homme à l'époque de l'Illuminisme. Dans quelle mesure ces thèmes peuvent contribuer à un tel but est discutable. De plus, dans tout ça, le mot homme est utilisé plutôt au sens générique, les hommes concrets, les personnes réelles étant complètement absentes, parfois des occupations et des modes de vivre étant décrits d'une manière générale. Les liaisons ne s'établissent pas, la majorité de fois, entre les gens, mais entre états et elles sont d'habitude, conflictuelles, en terme de qui domine qui.

Les auteurs de manuels devraient être plus attentifs aux rapports entre le général et le particulier, dans la construction des contenus didactiques. Il est nécessaire dans tout manuel de réaliser un équilibre optimal entre les éléments de généralité et ceux particuliers. Il est vrai que les élèves ont accès au général par la factualité proche, mais il faut faire attention, leur prééminence peut bloquer quelquefois la voie vers l'universel. C'est pourquoi il faut réfléchir à la fréquence et l'extension des éléments circonstanciels, surtout si ceux-ci sont accidentels, périssables.

En général, l'éducation intellectuelle doit être refaite en liant la problématique des disciplines scolaires à un contexte axiologique. Autant qu'on vise seulement la transmission du noyau explicative d'une science et la formation de l'échafaudage intellectuel sans mettre en évidence la genèse et l'évolution des idées scientifiques, les valeurs spécifiques à chaque pays, et, au dernier instant, sans la formation d'une culture véritable, on croit que l'éducation est affectée dans sa propre essence: la dimension formative hypostasiée en attitudes (G. Vlăsceanu, 2002). Par exemple, la manière dont ils sont offerts par les supports curriculaires actuels, les mathématiques restent «une discipline reine», mais fermée dans une tour d'ivoire, sans aucun envoi vers le monde réel, auquel l'enfant a accès.

III. Conclusions

La tendance exagérément intellectualiste encyclopédiste ne peut plus satisfaire les sollicitations complexes auxquelles l'enseignement actuel est soumis. Sûrement, la valeur des connaissances dans la préparation des élèves ne peut pas être niées, mais il est spécialement important l'aspect formatif, axé sur le développement des compétences et des attitudes désirables. La simple acquisition des connaissances n'aboutit pas, par soi-même, à un développement des capacités et des aptitudes intellectuelles. Dans la perspective de nouveaux buts de l'éducation, le réductionnisme spécifique au système traditionnel d'enseignement

ne peut être que contre-productif. La limitation de l'enseignement a la transmission des informations, l'identification de l'homme cultivé avec l'homme informé, la transformation de l'encyclopédisme dans une rêve à nuit a la cause pour l'éducation des jeunes conformément aux demandes de la société.

On a reproché à l'enseignement exagérément intellectualiste du passé le fait qu'il a produit un dogmatisme sur le plan structurel et cognitif, et sur le plan affectif et interrelationnel de l'autoritarisme. Il n'a jamais été suffisamment formatif, parce qu'il a surévalué le rôle des connaissances et il n'a pas stimulé un développement complexe de la personnalité de l'élève. L'école ne doit pas privilégier les contenus abstraits au détriment des aspects formatifs. Les raisons ne se réfèrent seulement aux exigences de formation, mais visent aussi l'impossibilité d'entraînement dans un effort d'acquisition de plus connaissances que possible dans des diverses domaines, dont le volume augmente a un rythme très rapide.

Les initiatives pour la modernisation de l'enseignement roumain se heurtent à une série d'obstacles, à la cause desquels le dépassement en fait de l'élitisme et de l'intellectualisme se laisse encore attendu. Ce qui nous manque aujourd'hui sont les politiques fermes et cohérentes de comptabilisation entre l'état de fait et les standards à atteindre. Ces standards se basent sur la philosophie d'un enseignement démocratique, pragmatique, capable a répondre clairement a la question: que fait l'école pour la réussite socio- professionnelle de chaque élève qui finit un cycle d'études?

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<http://www.edu.ro>

REFLECTION ON SCIENCE CURRICULA OF ROMANIA, BASQUE COUNTRY AND TIMSS 2007 TESTING

LILIANA CIASCAI*, JULIA IBARRA**,

ABSTRACT. The results of Romania and Basque countries at 2003 and 2007 TIMSS *testings* show a very different evolution: the results of Romanian eighth-grade students remain constantly poor while the Basque students have improved their results, reaching close to the international average. Most explanations for this difference are attributed to science curriculum. In this paper is carried out a comparative analysis of eighth-grade science curriculum tested by IEA testing/assessment in 2007 and those of Romania and Basque country. This analysis uses the taxonomy of objectives adopted by TIMSS 2007 testing. The results indicate that there are differences between the curricula of these countries, *relative to the objectives and the scientific content. Also, they emphasize the curricular revisions that should be made so these countries can focus on problem solving approaches/in order for these countries to focus on problem solving approaches.*

Key words: *TIMSS 2007, Science, school curricula, Basque country.*

ZUSAMMENFASSUNG. Die Ergebnisse von Rumänische und Baskische Land, im Jahr 2003 und 2007 in die TIMSS-Tests, zeigen eine sehr unterschiedliche Entwicklung: die Ergebnisse der rumänische Studenten in dem achten Semester sind ständig schlechter, während die Baskische Studenten verbesserten ihre Ergebnisse. Sie erreichen der Nähe des internationalen Durchschnitt. Die meisten Erklärungen für diese Situation finden Sie in der Wissenschaft Lehrplan.

In diesem Artikel wird eine vergleichende Analyse von Rumänische und Baskische Land gezeigt, im Wissenschaften Lehrplan IEA, Tests durchgeführt im Jahr 2007. Die Ergebnisse zeigen die Unterschiede zwischen den Lehrplänen dieser beiden Länder, über die Ziele, aber auch über die wissenschaftlichen Inhalte.

Für eine inhaltliche-Lehrplan Revision sollten beider Ländern begründen Ihrer curricularen Revisionen mehr auf die Problemlösung als auf Konzepte.

Schlüsselwörter: *TIMSS-Studie 2007, Wissenschaft, Lehrplänen, Baskenland.*

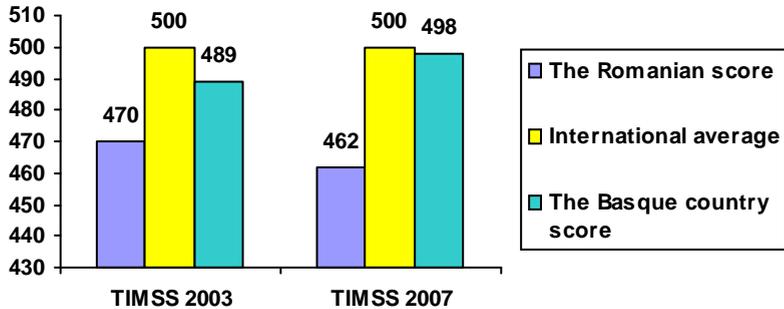
1. Background

In the last TIMSS assessments Romania and Spain have participated only with eighth-grade students. In these *assessments* the results of Romanian students were constantly below the international *mean scores*. In contrast, Spain, represented

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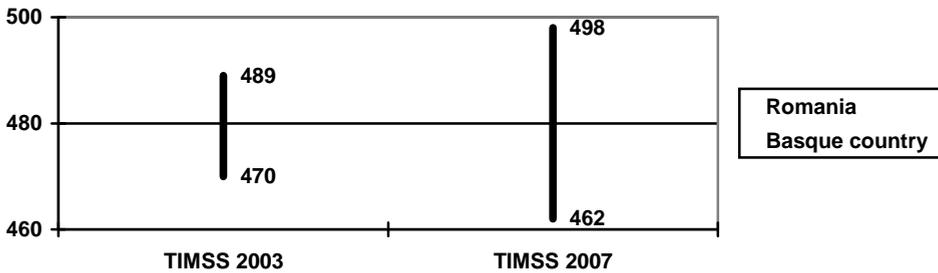
** University Public of Navarra, Spain

by the Basque Country, *has reached* in 2007 a score which does not differ significantly from the international average:



Picture 1. The results of Romanian and Basque students in TIMSS 2003 and 2007 testings (Gonzales & all, 2008, p. 33; Gonzales & all, 2004, p. 15; ISE-IVEI, 2008, p. 6-7)

As is shown in the picture presented above, the results of Romanian students are lower than those of their Basque colleagues. Also, *the differences on the performance scale* of Basque country and Romania increased, from 19 points in 2003 to 36 points in 2007 testing.



Picture 2. Difference between the scores of Romanian and Basque students (idem)

These differences could be explained by a comparative analyse of the science curricula of these countries and TIMSS testings.

2. Science curricula of TIMSS 2007 testing

2.1. What is TIMSS 2007 testing?

TIMSS is a project of the International Association for the Evaluation of *student achievement* (IEA), headquartered in Amsterdam. This project is led by the

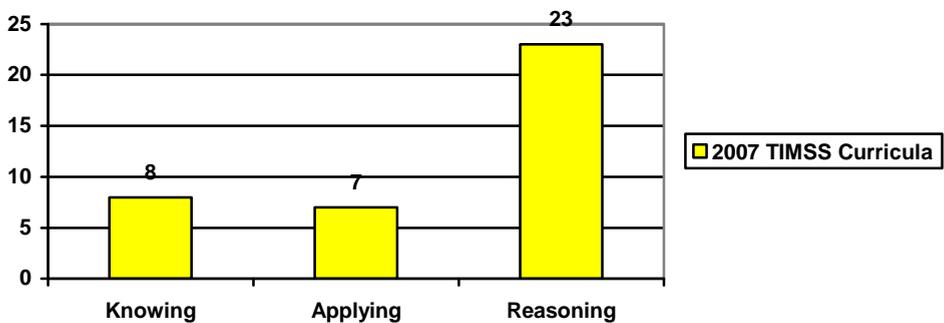
international study center TIMSS and PIRLS, in collaboration with a global network of organizations and representatives of participating countries.

TIMSS 2007 *assessment* is the fourth international test, in a comparative assessment cycle dedicated to improve teaching and learning in mathematics and science for students around the world. Conducted every four years at fourth and eighth-grades, TIMSS provides data about trends in mathematics and science. At the same time, *in order to inform* education policy makers in the participating countries, IEA usually collect extensive information regarding the quantity, quality and content of teaching. TIMSS 2007 has collected detailed information about the application and implementation of curriculum of mathematics and science, and also information about teacher training, resource availability and the use of technology.

Science curriculum of TIMSS testing comprises a cognitive domain and a content domain.

2.2. The cognitive domain of TIMSS 2007 testing

The cognitive domain of TIMSS 2007 science curriculum includes 38 competencies distributed in three cognitive categories: Knowing, Application and Understanding (Gonzales & all, 2008, p. 35). Knowing comprises eight skills concerning facts, information, concepts, tools and procedures that students need to know about science. *Applying level regards to* students' skills of using knowledge to solve problems or to answer questions and comprises seven skills. Most skills (23) are distributed at the level of Reasoning. This category goes beyond the cognitive processes involved in solving routine problems and *includes* complex tasks and complex problems resolution:



Picture 3. Distribution of TIMSS 2007 competencies on the taxonomy

It is important to mention that *a part of some* competences of cognitive domain is necessary involved in the scientific inquiry, more *specifically* in formulating questions and hypothesis, designing investigations, representing data, analyzing and interpreting data, drawing conclusions and developing explanations.

The eighth grade students should also possess knowledge about the nature of science and about the scientific inquiry (what is it, typology etc.). This knowledge could be gained *explicitly or implicitly*, by learning the content topics.

2.3. The content domain of TIMSS testing

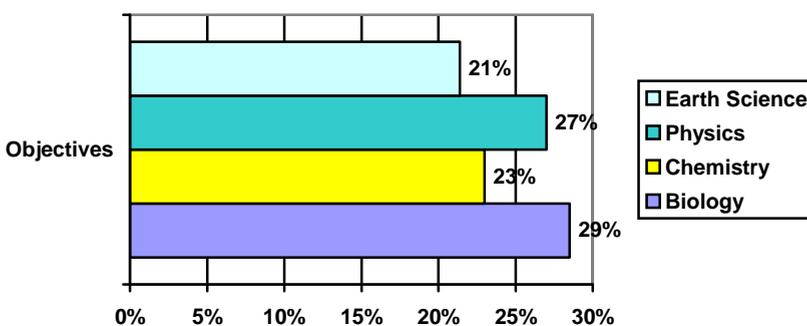
The contents that have been subjected to TIMSS 2007 testing of eighth-grade students are presented in the following table (Mullis & all., 2005, p. 53-67):

Table 1.

The content domain in TIMSS 2007 testing

Biology	Chemistry	Physics	Earth Science
Characteristics, Classification, and Life Processes of Organism; Cells and Their Functions; Life Cycles, Reproduction, and Heredity; Diversity, Adaptation, and Natural Selection; Ecosystems; Human Health.	Classification and composition of Matter; Properties of Matter; Chemical Change.	Physical states and changes in matter; Energy transformations, heat, and temperature; Light; Sound; Electricity and magnetism; Forces and motion.	Earth's structure and physical features, Earth's processes, cycles, and history, Earth's resources, their use and conservation; Earth in the solar system and the universe.

Each content domain (corresponding to a school subject) comprises several main topic areas, each topic being accompanied by a list of objectives. The total number of objectives is 70. In the following picture is illustrated the distribution of these objectives:



Picture 4. Percentage of objectives per school subject

As can be noted from the figure above, the distribution of objectives per school subjects is balanced.

The cognitive domain of TIMSS 2007 assessment represents taxonomy as an useful instrument for the analysis of Romanian and Basque country curricula.

3. Analysis of the science curricula of Lower Secondary Education in Romania

3.1. Romanian secondary education

Secondary education in Romania includes *pupils* aged between 3 and 19 years. Students follow 14 grades of study, grouped in five cycles based on the major learning objectives (CNC, 2000):

Table 2.

Curriculum cycles of Romanian education system

Curriculum cycle	The main goal	Age	Education levels		Grade	School subjects in the area of Natural Sciences
Specialisation	<i>Accomplishing pre-specialization with a view to an efficient integration in the specialized higher education or on the labor market</i>	19		Lyceum upper cycle	XIII	-
		18	Lyceum upper cycle		XII	Biology, Physics, Chemistry (Science/ integrate curriculum)
Reinforcement	<i>The in-depth study in the chosen profile and specialization, ensuring at the same time a general instruction based on the common core and on the options in the other curricular areas</i>	17		Completion year	XI	
		16	Lyceum lower cycle	Arts and Trades school	X	
Observation and orientation	<i>To orient pupils in order to optimize their school option and subsequent professional career</i>	15			IX	
		14	First cycle of lower secondary school		VIII	
		13			VII	
Development	<i>Developing the basic skills necessary for pursuing one's education.</i>	12			VI	Biology, Physics
		11			V	Biology
		10	Primary school		IV	Natural Sciences
		9			III	
Basic acquisition	<i>The pupil's adjustment to the requirements of the School system and initial literacy</i>	8			II	Knowledge of the environment
		7			I	
		6	Kindergarden		Preparation year	

Pre-university education in Romania follows unique plans which include subjects of seven curricular areas: (1) Language and communication (2) Mathematics and Natural Sciences (3) Man and Society (4) Arts (5) Physical education and Sports (6) Technology and (7) Counseling and guidance.

Preparation in the field of Natural sciences at the level of primary school is made in the frame of school subject *Knowledge of the environment* (first and second grades) and *Natural sciences* (third and fourth grades). In most of upper grades the place of Science as integrate approach is taken by school subjects: Physics, Chemistry, and Biology. Sciences study in higher school comprise special situations; one of them is that of specialization in literature (theoretical chain, humanistic profile). The students who are following this channel are studying Sciences (integrated approach) in the eleventh and twelfth grades. Another case is that of schools of Arts and Trade, *in this case /in the case of which* the sciences study stop at the eleventh grade.

The subject's curriculum is the main didactic instrument that describes the ideal conditions for successful learning. In Romania, there is a curriculum for any teaching subject. The curriculum specifies long term goals (named framework objectives) and medium term goals (named reference objectives) and provides suggestions for learning activities.

The framework objectives refer to the development of skills and attitudes specific for a subject *matter* and they could be achieved after several school years. The reference objectives state the expected outcomes of learning and follow the progress in the acquisition of skills and knowledge from one grade to another.

Their role is to support teachers in selecting and formulating the operational objectives of lessons taught.

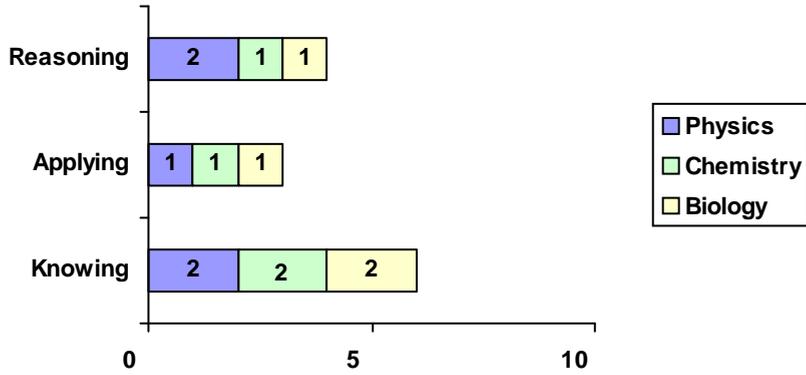
3.2. Distribution of objectives specified in the Romanian Science curricula for eighth-grade level

Eighth-grade students learn Physics, Chemistry and Biology. They acquire few notions on Earth science in the fifth-grade level at Geography.

The analyze of objectives mentioned in Romanian Science curricula, based on application of TIMSS 2007 taxonomy, is carried out at two levels:

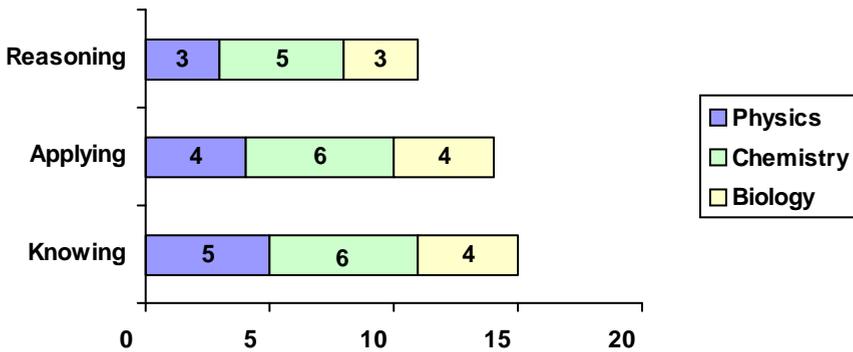
a) the level of long term objectives:

As it can be seen in the picture above the distribution of the framework objectives is less balanced, the *proportions* being: 1/2 (Knowing/Applying); 3/2 (Knowing/Reasoning) and 4/3 (Reasoning/Applying). The level of Applying is the less represented.



Picture 5. The distribution of framework objectives (Romanian science curricula) on TIMSS 2007 taxonomy

b) the level of the medium term goals of Physics, Chemistry and Biology:



Picture 6. The distribution of reference objectives (Romanian science curricula) on TIMSS 2007 taxonomy

At this level the distribution of objectives is more balanced. Also, the decrease of the number of medium term goals with the increase difficulty of cognitive processes involved in Applying and Reasoning is normal.

3.3. The content domain of Romanian science curricula of eight-grade level

Physics, Chemistry and Biology content that teachers have to teach at eighth-grade students is set in the school curricula.

Table 3.
The topics of school subjects (Physics, Chemistry and Biology) of eighth-grade level

Physics	Chemistry	Biology
Fluid Mechanics; Heat; Electric charge; Electric circuits; Electromagnetism; Optical instruments; Radiations.	Simple substances with practical uses; Substances compound with practical uses.	Plants and animals in different life environments; Factors in the spread of living organisms; Trophic relationships in ecosystems; Equilibrium in ecosystems.

This content is mainly mono-disciplinary. Teacher or student are responsible *to identify/for identifying* interdisciplinary themes and if they fail to find such developments - and it happens very rarely to have such initiatives – the students' knowledge remain fragmented.

4. Science curricula of lower secondary education in Basque country

4.1. The secondary education curriculum

The educational system in Spain is organized in cycles and levels, including students aged three to 18 years old. (Mullis & all., 2008, p.652).

Table 4.
Curriculum cycles of Spanish education

Vârsta	Stages		
3-6	3 levels	Infant education (levels)	
6-8	1st Cycle	Primary education (6 levels)	
8-10	2nd Cycle		
10-12	3rd Cycle		
12-13 13-14	1st Cycle	Compulsory secondary Education (2levels)	Biology, Physics, Chemistry and Earth sciences (Science/integrate curriculum)
14-15 15-16	2nd Cycle	Compulsory secondary Education (2levels)	Biology, Physics, Chemistry
16-18	Baccalaureate (upper secondary) or Vocational studies (2 levels)		

As it can be seen in the table above the science study as school subjects in Basque country starts in the secondary education level, comprising the subject matters that are *assessed* in TIMSS 2007.

The science curriculum in the 2th year of Secondary Education in the Basque Country (Spain)

Compulsory Secondary Education goes from 12-13 years to 16-17 in four academic year courses. In third and fourth year, students choose among various subject alternatives. This education system and Experimental Sciences aim to enable all students to become scientifically literate and, to do so, traditional subjects are taught, namely Physics, Chemistry, Biology and Geology, without forgetting other new branches such as Ecology, Biotechnology etc. and others of indubitable interest such as Astronomy, Medicine and Dietetics.

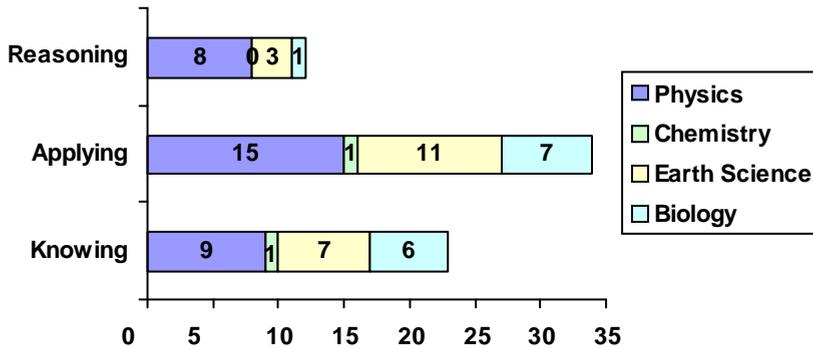
The central theme of the second year (corresponding to eighth level in Romania) is the change in subject matter and the introduction of the concept of energy as the driving force, allowing us to move towards an initial qualitative explanation from a clearly global focus. In particular, terrestrial changes are analysed from the *perspective* of their relation to the Earth's energy, both external and internal. Changes in living beings and environment, and the relation between them are also *taken into account* with serving as a stepping stone to ecological science.

In Physics and Chemistry the first interpretative models of the structure of matter are introduced *following* simple atomic models, making it possible to explain the macroscopic properties of matter as well as its physical and chemical changes. With regard to the content of Biology and Geology, they start out from the unit of structure and organisation of living beings, from the cell as basic unit of life to a complex organism such as the human being. The unit of structure and function of our body is focused from the perspective of education for health, establishing the importance of healthy behaviour and indicating the relation of each organic system to hygiene and the prevention of its main illness. Finally, the course concludes with the relations between Science and Technology, Society and the Environment: the electric current, its production, its use and relation to scientific and technological development as well as environmental problematics from the physicochemical point of view; in Biology and Geology, human activity and the environment examined from the analysis of natural resources and their use, as well as the waste generated and its impact on the ecosystems.

Therefore, the area of Natural Sciences *emphasize* the development of *student's* power of observation, analysis and reasoning, as well as intellectual flexibility and methodical rigour, in this way encouraging him to think and elaborate his thought processes more independently throughout life.

4.2. Distribution of objectives specified in the curricula for eighth-grade level

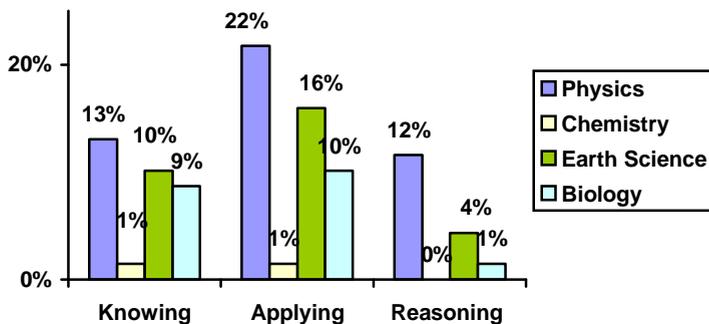
The science curricula of Basque country follow the attainment of 69 objectives of which 32 objectives are formulated for Physics, two objectives for Chemistry, 21 objectives for Earth Science and 14 objectives for Biology. The distribution of these objectives is presented in the next figure:



Picture 7. The distribution on TIMSS 2007 taxonomy of objectives (Basque country science curricula)

As it can be seen in the figure above Chemistry is the less represented school *subject* in the Basque country curricula.

Unlike the Romanian science curricula (picture 6), excepting Chemistry, the curricula of Basque country are focused on the level of Applying:



Picture 8. The distribution of objectives by subject matters on TIMSS 2007 taxonomy (Basque country science curricula).

More precisely, half of the objectives formulated for each school subject are placed at the level of Applying and the other half is distributed at the other two levels.

3.3. The content domain of Basque Country science curricula of eight-grade level

The science curricula of Basque country for the students of 13-14 years comprise four school subjects, the same with those selected for the TIMSS investigation.

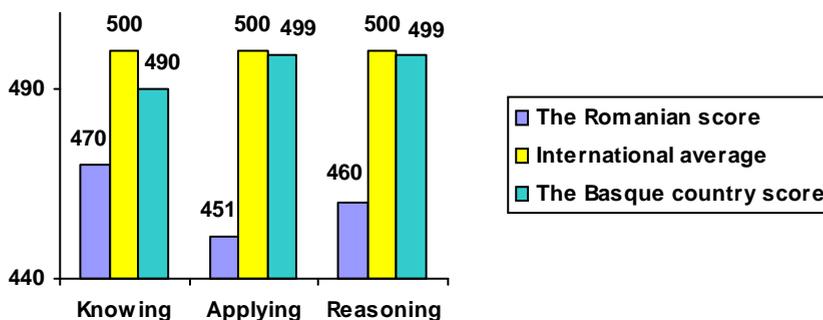
Table 6.

Subject areas in the 2nd course of ESO (13-14 years)

Physics	Chemistry	Biology	Earth science
Optical and sound changes; Heat and temperature; Electrical phenomena, electric charges, conductors and insulation; Energy conservation and degradation; Consumption and sources of energy.	Classification and composition of Matter; Chemical change.	Characteristics, Classification, and Life Processes of Organism; Cells and Their Functions; Life Cycles, Reproduction, and Heredity; Ecosystems. Trophic relationships in ecosystems; Protected ecosystems in the Basque Country.	Atmospheric changes and meteorological phenomena; Earth's structure and physical features; Earth's processes, cycles, and history; Earth in the solar system and the universe.

5. Comparisons between science curricula of Romania, Basque country and TIMSS 2007

In the TIMSS 2007 assessment the results *achieved* by students in Romanian and Basque countries were very different as means and scores *reached* at the levels of taxonomy. *In fact, the differences between students in Romania and Basque Country can be seen at every level of the cognitive domain.*



Picture 9. Comparison of scores obtained in the cognitive domain by Romania, Basque country and TIMSS 2007 students

If we analyse the histogram we could observe the differences in scores between the two countries. These differences are presented in the table below:

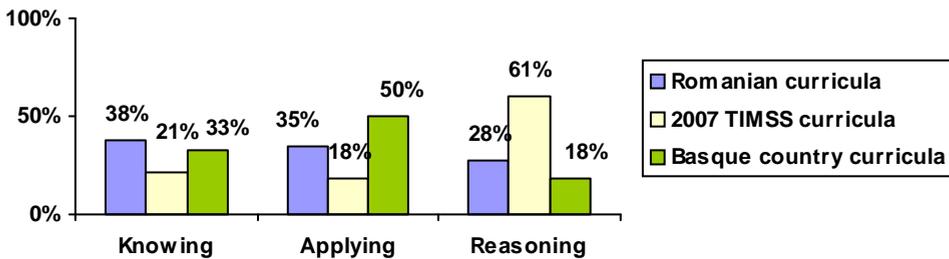
Table 5.**The biggest values of the scores' differences**

The biggest difference between scores	Taxonomic Level	Value of difference
Romania and Basque country	Applying	48
Romania and TIMSS testing	Applying	49
Basque country and TIMSS	Knowing	10

The most important differences in scores to discuss are those identified at the level of Applying.

To find out an explanation of these differences we have to analyse the three science curricula.

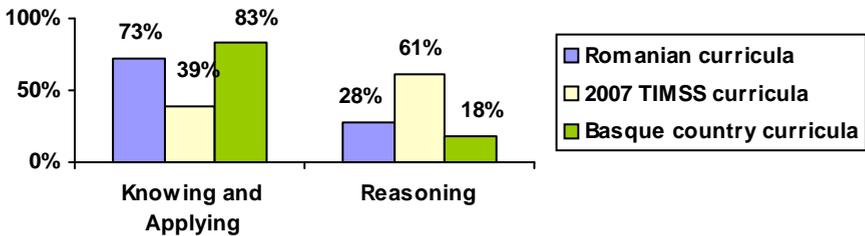
The first level of the analyse concerns the competences specified in the TIMSS 2007 curriculum, the reference objectives mentioned in the Romanian science curricula and those of Basque country curricula. This analyse is carried out using the TIMSS taxonomy.



Picture 10. Comparison between Romania, Basque country and TIMSS 2007 curricula of the eighth-grade levels

The comparison *revealed* the fact that each curriculum is *centre* on a different level of the taxonomy. For example, the *best* represented level for each curricula are: Knowing in the case of Romanian curricula; Applying in the case of Basque country curricula and Reasoning for TIMSS curricula.

Taking into consideration the fact that the first levels in the TIMSS 2007 taxonomy concern the simple problem solving and *the high one* the solving of the complex problems, the aim of the Romanian and Basque country curriculum is solving of simple problems while TIMSS curriculum is centered on solving the complex problems.

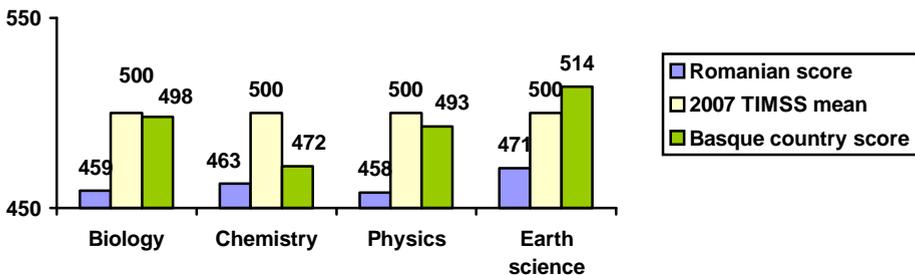


Picture 11. The distribution of objectives on levels correlated to simple or complex problems

The analyse of the content of these three science curricula *emphasizes* the next important aspects:

- The Basque country curriculum is very similar to that of TIMSS 2007 curriculum.
- In the TIMSS 2007 and Romanian curricula there are only few topics that could help students to succeed in the TIMSS testing: trophic relationships in ecosystems; optical instruments; fluid mechanics; substances compound with practical uses.
-

It has to be mention that TIMSS 2007 tested knowledge on Earth science. Earth science is not a school subject for the eighth-grade Romanian students. In fact, students who participated in 2007 assessment have been studying elements of Earth science in their fifth-grade level at Geography (in 2004) and developed their knowledge at Geography, Physics and Chemistry.



Picture 12. TIMSS means and scores obtained by Romania and Basque country at each content domain.

These interdisciplinary contributions and the fact that geography is one of school subjects included in the process of national exams could be the explanation of the score obtained by Romanian students at Earth science, where they reached their best results.

Conclusion

The results of this analyse confirm the possibility to attribute the poor results achieved by Romanian *students* in international assessments to the science curricula, firstly because its focuses on the levels of Knowing and Applying and secondly, because of the differences between the scientific content studied by Romanian students and the subject of the TIMSS testings.

This analyse *could also consider that* the increased performances of Basque country students in TIMSS 2007 testing can be attributed to the interest *given to* the level of Applying by curriculum authors. Despite the fact that this level regards simple problems solving, these skills applied to a content very similar with that of the TIMSS testing could assure the succes of the students in learning science.

To increase Romanian and Basque Country students' performances in international science assessments it is necessary *to revise* the existing curricula and their adaptation to international practices. It couldn't be necessary to propose a study of a similar scientific content. Most important is *a right* focus of curriculum objectives on the levels of Applying and Reasoning as a condition of the substantiation of a curriculum based on problems solving.

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STUDY ON THE FEATURES OF 6 AND 7 YEARS OLD CHILDREN'S DRAWINGS

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CORNELIA VANEĂ³

ZUSAMMENFASSUNG. Studie über die Eigenschaften der Zeichnungen, die von 6-7jährigen Kindern erstellt sind. In dieser Studie finden Sie Antworten auf den folgenden Fragen: Welche sind die Eigenschaften der Zeichnungen, die von Kinder zwischen 6-7 Jahre erstellt sind? Haben alle Zeichnungen von den Kindern in diesem Alter dieselbe Eigenschaften? Es wird die Hypothese geprüft: wenn in den frühen Jahren die Zeichnungen eines Kindes bestimmte Merkmale aufweisen, dann werden diese auch später, bei 6-7 Jahren, auftauchen. Wir haben die Zeichnungen von 12 Kindern aus einem Kindergarten geprüft. Bei der Erstellung der Bewertung sind die Eigenschaften der Zeichnungen der Kinder von 6-7 Jahren aus der Literatur und eigene Beobachtungen. Aus der Analyse der Zeichnungen kommen wir zu folgenden Schlussergebnissen:

- 1) das Vorhandensein der allgemeinen Eigenschaften (Exemplarität, Transparenz, die Wiederholung der Zeichnungen in anderen Formen, die Übernahmen von Ideen anderen Kindern, Vorliebe für ein bestimmtes Thema; Wiedergabe von Entfernungen durch Straßen und Eisenbahn, die falschen Größenverhältnisse);
- 2) die Zeichnung der Person hat besondere Merkmale (genaue Umrisse und die Einteilung des menschlichen Körpers in Unterteile, Differenzierung zwischen männliche und weibliche Gestalte; die Angaben der Gesichtseigenschaften)
- 3) die 6-7 Jahre alten Kinder benutzen bei der Erstellung von Zeichnungen die Vorkenntnisse und das bestätigt unsere Forschungshypothese: die Zeichnungselemente sind am unteren Rand der Seite erstellt, nicht in Breite, sondern auf eine Linie oder zufällig integriert.

Schlüsselwörter: *Transparenz, falten, biegen, enthaltenden Formen.*

ABSTRACT. Study on the Features of 6 and 7 Years Old Children's Drawings. Our purpose was to find answers to the following questions: Which were the main features shared by drawings realised by 6 and 7 years old children attending kindergarten?; Did all children's drawings, at the respective age, share the features we identified? The hypothesis we wanted to test was the following: were there several phases to be identified in children's drawings and if that was the case did 6 and 7 years old children had features characteristic to other phases too? We analysed drawings realised by 12 children attending a rural kindergarten and we used an assessment sheet

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where we included features of 6 and 7 years old children's drawings that we deduced from the literature we researched and as a result of our observations. After analysing drawings we reached the following conclusions: 1) there were several general features (exemplarity; transparency; bending; schematism; irregular character of the drawings, copying other children's drawings, preference for a certain theme, representing perspective through winding roads and railways; not observing the rules of proportion for the represented objects); 2) drawing people required observing certain rules (drawing clear borders and differentiating the body parts, differentiating men from women, drawing certain face details, representing arms and legs with a double line, additional structure of drawings); 3) in children's drawings we identified also features characteristic of other phases, and thus we verified our research hypothesis: placing the elements they drew at the bottom of the page as well as on a line, either at random or in an integrated way; representing "little persons – the Mr."; using a series of integrating ways: referenced forms, embracing forms, and stop-repeat forms.

Keywords: *exemplarity, transparency, bending, schematism, referenced forms, included forms.*

Introduction

Our purpose was to find answers to the following questions: Which were the main features shared by drawings realised by 6 and 7 years old children attending kindergarten?; Did all children's drawings, at the respective age, share the features we identified? The hypothesis we wanted to test was the following: were there several phases to be identified in children's drawings and if that was the case did 6 and 7 years old children had features characteristic to other phases too? Through this research we offered teachers certain information on the features of 6 and 7 years old children's drawings.

Theoretical Basis

Similarly to language, drawing is a means of communication based on a system of signs. Children combine features, put forms together, represent through symbols. Interpreting drawings means translating them. The graphic system that children use bases on forms that children learn and these forms are preconditions to a whole system of representations, a system of rules that children have to observe. In order to produce images, children use a few words, a code that they develop as they grow up while trying to reproduce the signs that they grew up with. So that we could interpret the drawings that 6 and 7 years old children produced we had to research literature on phases of children's production of drawings. In this paper we put forward only the features of phases included in the above-mentioned age.

Luquet (1927) defined the period between 4 and 10 years old as years of "*intellectual realism*". During this phase children chose between features of a certain object, features that could be noticed and the ones that couldn't, the details that expressed a certain degree of knowledge characteristic of their age. Children's drawings had three features:

- *exemplarity* – it was considered that this characteristic underlined the main features of the process of identifying images, as children drew each detail without flaw, they drew the elements of the image successively and these elements were indispensable for understanding a certain drawing;

- *transparency* – when children drew what they knew about objects, ignoring any restraints of the visual world: they drew the heart in the human body, but also added elements that they did not plan ahead in the spatial organising of the visual structure;

- *bending* – this was defined as a sum of graphical procedures that allowed, as a result of changes in view angles, representing three dimensional spaces on pieces of paper; children drew wheels and legs of tables on both sides in an impossible visual perspective; one could change the verticality of objects: chimneys perpendicular on the oblique line of roofs, trees and houses neighbouring roads, pastures surrounded by hedges, etc.

Lowenfeld (1947, 1952, *apud* Cambier, Anne, 2008) established phases taking into account the way people perceived reality. He identified the period *before schematism* for 4 up to 6 years old children and a *schematism* period for 7 up to 9 old years children. This author considered that the lines that children used in order to represent the real were not very connected to reality. Frequently, children used forms and lines that lost meaning when separated from the entire image. At the age of 6 and 7, children established spatial relationships between elements and they perceived their own persons as part of the environment. If, in the beginning, children drew objects on the lower margin of pages, at that age appeared "*the basis line*" symbolising the basis where drawn objects resided. That line could be part of a landscape (e.g. a mountain).

Osterrieth (1976, *apud* Cambier, Anne, 2008) defined four levels: the blot period, the schematism phase, the conventional realism phase, and, in adolescence, differentiating individual evolutions. Representing people was varied: "little persons – the Mr." represented by oval or rectangular shapes, with long legs and hats, or "little persons – the Mrs.", represented by round or triangular forms, wearing short or long hair. The schemes of houses got richer with differentiating elements (e.g. curtains, door handles), modifying the number, position, and style of drawing windows. For children between 6 and 9, from a graphical point of view, one could notice *the progressive loss of addition* and moving on to the *integrative*. Children maintained proportions when drawing people, people were in certain relationships (they held hands or were involved in certain activities: they played games, picked flowers, worked). Children also picked colours carefully, paying

attention to conventions, they were interested in *naturalist types of compositions*. If, before, the elements of drawings had been scattered on paper or placed at the bottom of the page, lacking the representation of space, and only evoking it by drawing the sky or the sun, when children were 6 or 7, they also drew the soil line or a basis surface allowing the placing of objects and people in a certain environment, they conceptualised space. Children started to use procedures such as representations in elevation or aerial views, mixing different ways of representing in the same drawing. When children were 10 their drawings were considered less schematic, less stereotypic, more elaborated. They also tried to represent perspective, to indicate a certain visual perspective, such as diminishing the dimensions of objects with distance and taking into account visual coverage. Frésard's study (1981, *apud* Cambier, Anne, 2008) showed that 9 and 10 years old children represented perspective through diverse strategies: roads disappeared inside tunnels or behind hills, roads hosted kilometric signs, panels, children drew winding roads, longer roads than the longest margin of papers.

Eng's (1931, 1957, *apud* Cambier, Anne, 2008) and Lurçat's (1974, *apud* Walon, Ph., 2008) underlined *the irregular character*, similar to a jigsaw blade, of *individual production*, therefore somebody's drawing had a variable number of details from one production to another. Anne Cambier (2008) sustained that in the evolution of representing a character one could identify changes, mutations, deteriorations, oblivion or returns to previous schemes. Graphical features organised and reorganised observing certain rules. Drawing a character appeared as a system including synergies and conflicts between additions of elements, changes of lines and structures. This researcher considered that *each child had a personal style* in realising a production, an obvious style, a certain manner of representing the character's features, but it was very difficult to define this style. Children of 5 and 6 drew characters while observing the following: clear contours and differentiating body parts (head, body, arms, and legs), differentiating the male characters from the female ones, indicating face details, representing arms and legs with a double line, additional structuring of the drawing.

One of the conclusions of Abraham's study (1963, *apud* Engelhart, D., 2008) was that children from 6 up to 17 years old first drew a *character having the same sex like them*. Osterrieth and Cambier (1976, *apud* Cambier, Anne, 2008) discriminated between two graphical successive ways in the course of drawings' evolution as children grew old and these researchers named them "ways of integrating": "an additional – inorganic way, by juxtaposing geometric elements that if taken one by one did not evoke that part of the body that they represented; "an organic, synthetic, integrative, non-geometrical way where isolated elements of the whole kept their representative power"; "a joint way" that combined the previous two. Philippe Walon (1987, *apud* Walon, Ph., 2008) studied these ways of integration: "*referenced forms*" (additional lines) (when a new line referenced itself to a previous built one), "*embracing forms*" (Goodnow's *embracing lines*, 1977, *apud* Cambier, Anne, 2008) (the contour line was apparently continuous and included body parts) and "stop-repeat forms".

Method

We realised our research in the 2008-2009 school year, in a kindergarten group with 6 and 7 years old children, in the rural area. Our sample included 12 girls and boys in the Normal Programme Kindergarten in Florești commune, Cluj County.

We tested the following hypothesis: were there several phases to be identified in children's drawings and if that was the case did 6 and 7 years old children had features characteristic to other phases too? The independent variable of our research consisted of given tasks (the stimulus method) when we asked children to realise drawings observing certain rules. The subject variable was represented by 6 and 7 years old children that had a certain level of psychic development and characteristic individual features. The dependent variable of our research consisted in children's drawings where we could identify obvious features that were characteristic of certain phases.

During our experiment, children received the following tasks that they solved along several days: Draw "little persons"!; I draw my family; Draw what man has inside his body!; Draw objects that we do not have in our classroom!; Draw things that one may put in a bag!; What can you draw using lines and geometric figures? (task 1 and 2); What can you draw using straight, parallel, vertical and horizontal lines?; "The golden window" or "The open window"; How can you integrate a house, a child and three trees?; Feel this thing inside the little sack and draw what you think that is!; Draw a thing that the toothbrush is similar to!; Flying spoons, forks, and knives; Continue that drawing!. During the experiment, children worked individually, each child had a piece of paper and coloured pencils.

After researching literature and doing some observations, we elaborated an assessment sheet where we included features of 6 and 7 years old children's drawings. This assessment sheet included the following categories of features: general features, display, type of drawing, representing people, representing perspective, space awareness, ways of integration (table 1). With help of the assessment sheet we analysed children's drawings and marked with an "x" the identified feature. In this study we assessed only the existence of a feature not its weight in one child's series of drawings.

Results

In table 1, we mentioned the features of children's drawings that we analysed according to the assessment sheet.

Table 1.

Features of 6 and 7 years old children's drawings

Categories	Features	Alin	De-nisa	Ser-giu	Nar-cis	Timo-tei	L.An-dreea	Ro-xana	M.An-dreea	Io-nuț	A-lex	Răz-van	Sa-nyka
General features	exemplarity	x	x	x	x	x	x	x	x	x	x	x	x
	transparency		x	x		x		x			x	x	
	bending	x			x						x	x	
	schematism	x	x	x	x	x	x	x	x	x	x	x	x
	irregular character of drawings	x	x	x	x	x	x	x	x	x	x	x	x
	repeating certain drawings in other ones	x	x	x	x	x	x	x	x	x	x	x	x
	copying schemes from colleagues	x	x	x	x	x	x	x	x	x	x	x	x
	preference for a certain theme	x	x	x	x	x	x	x	x	x	x	x	x
	personal style	x	x	x	x	x	x	x	x	x	x	x	x
Display	at the bottom of the page		x		x			x			x	x	
	bottom line		x	x	x	x		x	x	x		x	
	at random on the page		x	x	x	x		x	x		x		x
	integrated in the page	x	x	x	x	x	x	x	x	x	x	x	x
	aerial view					x					x		
Drawing people	drawing clear borders and differentiating body parts	x	x	x	x	x	x	x	x	x	x	x	x
	differentiating men from women		x			x	x	x	x	x	x	x	x
	indicating face details	x	x	x	x	x	x	x	x	x	x	x	x
	representing limbs using double lines	x	x	x	x	x	x	x	x	x	x	x	x
	representing limbs using one line			x	x					x	x	x	
	additive structuring of the drawing	x	x	x	x	x	x	x	x	x	x	x	x
	representing clothes	-	x	-	-	x	x	x	x	-	x	-	x
	representing shoes	x	x	x	x	x	x	x	x	x	-	x	x
	people represented as part of a relationship									x			
	little persons – the Mr.			x	x					x	x	x	
	little persons – the Mrs.												
Representing perspective	winding roads	x		x		x							
	winding railways								x				
Representing in space					x					x			
Observing the rules of proportion		x	x	x	x	-	-	x	x	x	x	x	x
	referenced forms	x	x	x	x	x	x	x	x	x	x	x	x
	embracing forms	x		x		x		x			x	x	
Ways of integrating	stop-repeat forms		x	x		x	x	x		x		x	x

Discussions

1) Study of general features

Exemplarity could be considered proof of children's capacity of conceptualising as it underlined essential features for identifying images. After some of the tasks, the teacher asked children what their drawings represented and wrote on the drawing what they said. During our analysing of drawings, we assessed what each drawing represented and if we could accept that the respective drawing represented what the child said it did. Almost all children's drawings were characterised by exemplarity and each child manifested this feature even if in not all of his/her drawings. They drew in an exemplar way representing the main features of the sun, of tables, chairs, and houses (figure 13 and 14).

Transparency. Only in six children's drawings (that we marked in table 1) we could notice transparency, when they drew, without any explicit requirements, houses and trees with fruit (figures 9 to 12). When they drew "what man had inside his body" (figure 1 and 2), they did not represent clearly the internal organs meaning that children had no correct representations of them. They also drew the heart symbolically in 7 out of 8 drawings, the lungs in one drawing and the kidneys in another. Children also drew bones (figure 1), representing ingested food (three cases). In five drawings they drew a red circle on the forehead, and in two drawings they represented a yellow surface that could be associated to the brains. When drawing "what one can put in a bag", all children put objects in bags making use of transparency. Some children put in one bag objects of different kinds (fruit, vegetables, clothes, bread, meat, milk and similar products, sweets, and toys) and that was rarely according to reality. Some children grouped the objects in their bag on categories: fruit and vegetables (one case) and toys (another case).

Bending. Only four children used bending when drawing chimneys perpendicular on roofs (figure 14) or when they drew hedges around sheep (figure 19).

Schematism. All children realised sketches. Some children drew rectangles (figures 1, 3, and 8) or ovals (figures 2 and 5) in order to represent a person's body or head, parallel lines (figures 1 to 6, and 21) or single lines (figures 7, 8, and 22) in order to draw sketches of arms, legs, and fingers.

We identified *the irregular features of the drawings* in all children's drawings. They drew the same type of house, tree or man, but the number of details varies from one production to another, because of diverse causes (lack of time, motivation, children were tired).

Repeating drawings from other productions. Children drew certain objects or persons for several times, in different drawings, in a certain way that allowed others to identify the author. For the task "Continue that drawing!", children realised collective drawings by continuing for three minutes their colleagues' drawings. We noticed that a child drew the same horse in three different drawings

(figure 17), another one drew the same house with a sloping roof in two drawings (figure 14), another one drew snowdrops in the same way in three drawings, another one drew similar trees in four drawings (figure 9), poplars in two drawings, trees with a winding shape in two drawings, and still another one drew the same black bordered house with a lateral chimney in two drawings and a coloured one and with a lateral chimney in a different drawing.

Copying certain schemes from their colleagues could be identified especially when drawing trees with branches and fruit and similar houses (figures 9 to 12).

Preference for a certain theme. Several children preferred drawing cars (figure 17), rockets, trains, other drew domestic animals (figure 19) and a rural environment as they were strongly influenced by the environment they lived in.

2) Display. In the case of five children we noticed the placement of objects and people at the bottom of the page (figure 21), while others placed people in the centre of the page. Eight children drew the base line where they placed objects and people (figure 22), without doing this through imitation. Other eight children placed objects and people randomly on the page in some drawings, where there was space enough. When the teacher required children to realise a drawing on a certain scheme, all children placed component elements of their drawings in an integrated way, in spatial (topological) relations, without overlapping and interactions between elements (figures 17 to 20). Two children drew their compositions with an aerial perspective (as seen from above) (figure 19).

3) Drawing people had several features according to children's age. We identified the features of those drawings realised by 6 and 7 years old children by taking into account the following: clear borders and differentiating body parts (in all children's drawings), discriminating between males and females (not present in four children's drawings), indicating face details (in all children's drawings), representing arms and legs with a double line (not present in two children's drawings), additional structuring of drawings (in all children's drawings). Children drew people wearing clothes (seven children), wearing shoes (eleven children), wearing long or short hair, sometimes moving, with necks connecting heads to bodies, with arms continuing shoulders, with fingers from three to five in the shape of sticks or semicircles. Sometimes they drew eyes with clear contour, with lashes, and eyeballs. Sometimes girls drew jewellery attached to women's ears or necks (figure 6). During the task "little persons", all girls drew little girls (figure 6) and all boys represented boys, which was characteristic of that age. With one exception, all drew feet oriented to one side. They drew palms and fingers similarly to flowers (figure 6), with one exception, when one child represented fingers as a zigzag. Girls drew more face details, especially for eyes (figure 6), in comparison to boys, and girls' clothes were more complex (figure 6) as compared with the ones that boys represented, characterised by simplicity or absence (figure 5).

Several drawings had features characteristic of previous age groups: five children represented arms and legs with a line (figures 7, 8, and 22) and drew little men – the Mr. with rectangle and circle type body (figures 1, 2, 3, 5, and 22). Three of them drew arms and legs with a double line (figures 1 to 6, and 21). Three children represented less adequate figures to proper representations, with no respect to form or dimension (figure 4, 7, and 8). Two children did not represent people's hair, and their characters' legs were not equal in size or similar as form. When they drew their families, children drew families of four to ten members. They included in the family: the father, the mother, the grandfather, the grandmother, the sister, the brother, themselves. In some cases they mentioned their brothers' and sisters' first names. Children drew the members of their family separately, only one child represented them holding hands (figure 22). Two children represented only the borderline of each family member, and the other coloured inside borders. They represented faces in a simple way: eyes and noses through circles, mouth with a single line. Their face expression was a smiling one in all drawings. With one exception, all others represented family members with their arms down. Three children placed themselves in the centre of their families, while others placed themselves to one side (three to the left and one to the right). Family members had different heights: as a rule, parents were taller. In order to pay attention to parents, a child placed parents in the upper part of his page. Three children paid no attention to representing feet. All drawings were characterised by cheerful colours.

4) Representing perspective. The only strategies that we identified for representing perspective in the analysed drawings were represented by winding roads (three cases) (figures 17 and 18) and winding railways (a single case) (figure 20).

5) Representing in space. Two children represented hedges as if one saw them from above but through bending (figure 19).

6) Observing proportions. In the drawings “The Open Window” and “How Can You Integrate a House, a Child, and Three Trees?” we noticed that two children did not observe the proportions of the represented objects, especially when they drew people as big as houses (figure 21).

7) Ways of integrating. All children drew referenced forms (figures 1 to 14), six of them drew in several cases embraced forms when drawing people and animals (figures 15, 16, and 17). In several drawings, we noticed that they drew stop-repeat forms (figure 18).

Conclusions

After analysing 6 and 7 years old children's drawings we drew the following conclusions:

1) there were several general features (exemplarity; transparency; bending; schematism; irregular character of the drawings, copying other children's drawings, preference for a certain theme, representing perspective through winding roads and railways; not observing the rules of proportion for the represented objects);

2) drawing people required observing certain rules (drawing clear borders and differentiating the body parts, differentiating men from women, drawing certain face details, representing arms and legs with a double line, additional structure of drawings);

3) in children's drawings we identified also features characteristic of other phases, and thus we verified our research hypothesis: placing the elements they drew at the bottom of the page as well as on a line, either at random or in an integrated way; representing "little persons – the Mr."; using a series of integrating ways: referenced forms, embracing forms, and stop-repeat forms.

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Annex



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16

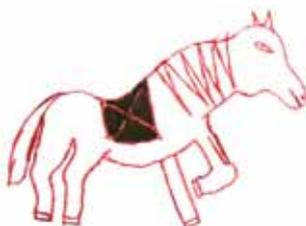


Figure 17



Figure 18



Figure 17

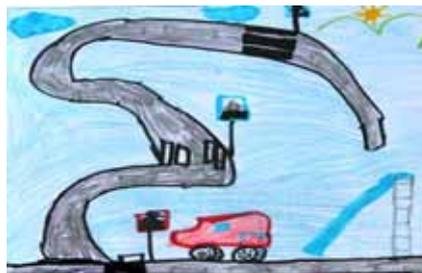


Figure 18



Figure 19



Figure 20



Figure 21



Figure 22

MEDIATED LEARNING. APPLICATION OF INSTRUMENTAL ENRICHMENT PROGRAM

DANIEL MARA, ELENA-LUCIA MARA

ZUSAMMENFASSUNG. In diesem Artikel werden theoretische und praktische Aspekte der Methode Feuerstein. Durch die Anwendung von Tools Instrumental Enrichment - Programm Ich habe die Entwicklung der geistigen Fähigkeiten der Studierenden in die Forschung. Das Prinzip der Entwicklung dieser Methode ist, dass Intelligenz nicht einer vorgegebenen und stabiler Faktor, sondern ein Element, das kann sich, was bedeutet, dass die Rolle der Erwachsenenbildung in dem Plan ist von entscheidender Bedeutung. Studenten, die in der Forschung - Aktion haben beschlossen, die Aktivitäten *der Psychologie Unterricht Spaß*.

Schlüsselwörter: *Methode Feuerstein, Instrumental Enrichment Program, Forschung-Action.*

ABSTRACT. In this article are presented theoretical aspects and practical method of Feuerstein. By applying tools Instrumental Enrichment Program I followed the development of mental capacities of the students included in the research. The principle underlying the development of this method is that intelligence is not a predetermined and stable factor but an element that may evolve, which means that the role of adult education in the plan is crucial. Students involved in research-action have decided to designate the activities of *psychology lessons fun*.

Keywords: *method Feuerstein, Instrumental Enrichment Program, research-action.*

1. Mediated learning

By applying the method Feuerstein is to develop the mental capacities of individuals. The principle underlying the development of this method is that intelligence is not a predetermined and stable factor but an element that may evolve, which means that the role of adult education in the plan is crucial. Feuerstein explains the role of adult intervention in the child by the following scheme (Feuerstein, 1995):



stimul mediator factor organism mediator factor response

How the intervention of the mediator (the human) is not in assault student with stimuli, but the selection (checking, reordering, explain) them.

Thus, knowledge, information is transmitted on a voluntary basis and realized by adult and child intelligence is developed.

The “filter” that a mediator should be done with less time, since a good mediator is one that aims primarily to achieve a high level of student autonomy.

An educator is prepared to assume the role when is convinced that human beings are changeable, a person who educates amended, he is able to change the person that educates, he can (and should) be modifiable society can and should be amended by the contribution of individual persons who compose.

2. Structure Instrumental Enrichment Program

Instrumental Enrichment program is composed of a set of exercises divided into 14 tools that are used as means for developing mental capacities. The disciplinary content not because they do not concern the acquisition of specific knowledge, but the acquisition of mental skills, concepts used in different situations. Each instrument is focused on specific cognitive functions and provides purchases for developing cognitive capacities necessary for solving task that requires a high level of abstraction. The Instrumental Enrichment Program are: Organization Points; Spatial Orientation I. Comparisons; Analytical Perception; Pictures; Spatial Orientation II, Classification, Temporal Relations, Instructions, Family Relations, Numerical Progression; Syllogism; Relations Transferable; Sagome (Vanini, 2003, pp. 72-73).

Exercises instruments in addition to images and temporal relations, which are organized differently and provide a gradual increase in difficulties so as to encourage the progressive acquisition of purchases necessary to solve successive years, thus strengthening the feeling of competence, autonomy in organizing intrinsic work and motivation. Recommended the granting of a wider reflection on the mechanisms that led to solving the tasks, so that subjects become aware of the importance and need for discussion about the work done and to make transfers on the basis of principles formulated during activity. Develop principles and implementation of transfers are very important elements. Finding a synthesizing principle is valid in a concise sentence and all the details of the page caught analyzed. Principle can highlight a problem that has been exceeded, a newly learned information, a particular reflection exercises that generated it, or a necessary element to resolve the page. The transfer is create a link between the principle result of reflection necessary for understanding and addressing pregnancy and everyday life.

During the activity, will use two or more instruments to avoid monotony that may occur after using for a long period of the same type of exercises, or the feeling of failure resulted from difficulties in solving an exercise instrument . Also, instruments are studied so that purchases made by an instrument to strengthen up the use of other instruments. A particular route is the way the images, which is composed of humorous stories independent from each other. Each page contains a

story that can be chosen depending on the requirements of the group that works brought at any time of the work after being gone the Organization Points.

Each instrument begins with a picture page (cover or homepage), which is used for placing the instrument, creating a horizon of waiting for motivation and development through the page.

Cover pages have certain features that remain unchanged from instrument to instrument to highlight the continuity of work, but each instrument is distinguished from others. Ombudsman oriented subjects to consider the symbol on the cover to deduce the exercises that will resolve the issues and that they will discuss.

3. Organize an activity of the Instrumental Enrichment Program

Organize an activity of the Instrumental Enrichment Program provides respecting some rules and some key moments: the introduction, individual work, discussion and conclusions (Kopciowski Camerini, 2002, pp. 74-76):

a. Introduction

By going through this phase mediator seeks awakening interest in the group over the work which will develop and define their problems they will solve. Revision begins with data from previous lesson. The mediator shall ensure that they were well understood concepts, requirements and assimilate the vocabulary necessary to solve the task. Students will learn to analyze the page autonomously. Earlier work trainer guides students in oral observation and development objectives.

b. Individual Work

After a brief introduction to the work to be done, students will be asked to solve an individual task, after which they are involved in a discussion aimed at highlighting possible strategies for solving page. It starts with solving the task on an individual, autonomous. While students work individually monitoring is required for their help and encourage those who have difficulties. It is recommended to avoid frustrating situations and competition. Students must understand that it's important not to finish quickly the page. Is important to understand how to resolve a task and how they form and develop their implementation of certain powers them. Activity based on reflection, even if not fully effective, may be more useful than the one made in haste, because it allows analyzing the processes that formed it.

c. Discussion

When most students have completed the task individually start discussion. Being particularly interested in mental processes that led to finding the solution, it is appropriate to insist on correct answers and the wrong, to understand the mental processes through which solutions were found.

Choose an element of the since-along activities to formulate a general principle, then the transfer will be achieved. Through the insight to get to generalization. This discussion allows comparing the strategies and cognitive functions involved in solving the problems and errors, to find examples of everyday life, the subjects, extracurricular activities. At first it is recommended that the mediator to identify the link between work and other applied situations, then students will gradually create these connections between the instruments and the surrounding reality. Each transfer is built on a solid and appropriate explanation of the type of connection between the example and the proposed developed.

d. Conclusion

At the end of each lesson there should be a recap of activity. Even if it is short it should highlight the steps taken to achieve this objective, the words acquired in November, targets and strategies set out above for the purchase. It is possible to encourage the value of activities to determine individually or in small groups the utility obtained by applying the tools.

The research project on the application method Feuerstein School in the “Queen Mary” in Sibiu was accepted after submitting their teachers, school directors, students and their parents. An important and persuasive was micro changes list that may occur in students' thinking and behavior.

4. Application of Instrumental Enrichment Program

Organization Points

Project Activity – Cover

Objectives:

- To create a standby horizon;
- To explain the “thinking”;
- Identify the role of thought in human activity.

Mediation:

Mediation criteria applied in the work are:

- Intent and reciprocity;
- Transcendent;
- Meaning.

Strategies Work:

- The cover shows students, are asked to observe carefully, then try to find all important information. It aims to identify the images.

- It states that the phrase, “One moment”, meaning a vague and inaccurate, “a moment” indicates something undefined, is different from “one minutes”, which is

a measurable time. Implementation activities may require a period of time different people different time the same person at different times and in different contexts.

Principles:

- *Browsing time involves aspects of subjective value.*
- *Conduct an organization and requires a systematic control of all phases of work.*
- *No human ability to order and organize reality, the universe could be considered an incoherent agglomeration of objects and events.*

Organization Points

Activity – Cover

Date: 22.11.2007

Class: III-a

It presents students Organization cover instrument points.

It focuses on the top of the page.

Teacher: What to see this picture?

Michael: I noticed that a star is made of stars.

Vlad: Could be big cart.

It focused attention on the square and wonder what I see?

Alex: A guy who thinks a boy who imagines.

Teacher: How did you inferred that the guy thinks?

Michael: Because he closed my eyes and put a pencil in his mouth.

Serban: He imagines that he has closed his eyes. Sits with his head in one hand and smiles.

Are lips.

It focused attention on the star image.

Teacher: What else notice in this picture?

Alexander: We see a group of stars at night.

Anastasia: sky with stars.

Stefan: Ursa small.

Teacher: What led you to believe that the cart is small?

Michael: The one that has less than a cart has more.

Vlad: Because the stars that are united.

Teacher: We see exactly small cart if you look on the night sky?

Mihaela: Rarely seen it.

Radu: The stars of heaven do not appear together.

Sorana: just see the stars.

Teacher: If we imagine that a line drawn to appear as shown. The sky not seen lines like this picture.

Some are closer and more distant.

Teacher: Look carefully the two images. In what position are the two figures?

Michael: One is rectangle, a square is.

Alex: The images are very close. One is above and one below. I'm stuck, overlap in the corner.

Vlad: Could you think the boy sets out alone lines.

One moment I think.

Alexandra: We are above the boy, which my colleagues have said they think how to draw lines in the rectangle to form small cart.

Teacher: What is time?

John: Let's wait a little, little.

Teacher: What are synonyms for a moment?

Dacian: One second, one minute, one cure, one hour.

Teacher: How long a time?

Michael: One time is one minute.

Vlad: It can take it any time.

Teacher: Why is it a moment's thinking?

Michael: Do not know how long to think. Do not know how considering us.

Teacher: Each of us have our way of thinking. Think differently and each time differently. A moment can be anything. If everyone suddenly started writing activity, for example, every sentence ends in a different time, we will never finish all at the same time because each thinks differently and write each other, neither as fast as another.

Michael: It's important to reach the same result to be valid and what we write.

Organization Points

Project Activity - Page 1

Objectives:

- Create a virtual relationship through reproduction figure model;
- To develop strategies to solve;
- Organize a desktop;
- Identify the advantages and limits of a recovery model.

Mediation:

- Slow impulsivity;
- Removal performances of the type-test error;
- It fosters a feeling of confidence in the other;
- Stimulating subject in careful observation of the page;
- Recommendation to use the time to understand what to do.

Strategies Work:

- It shows page 1 students, are asked to observe carefully, then try to find all important information.
- It focused attention on the important data (the square and triangle);
- It stresses the need for precision and accuracy in the reproduction of figures.

Principles:

- *Given a model that helps us in solving a task, therefore helps us to learn.*
- *Given a model that helps us in solving a task and therefore should value it.*

Organization Points

Conducting business - Page 1

Date: 29.11.2007

Class: III-a

Teacher: What notice in the first window?

Alexandra: A square and a triangle

Teacher: What led you to say that is a square and a triangle?

Dacian: I, I realized that I was a square and a triangle are arranged as points. Square has 4 points and the triangle has 3 points.

Daniel: We have some points, if I get a merged the square and a triangle.

Anastasia: the square and triangle are some geometric shapes, with 4 equal sides of the square and triangle with 3 sides.

Teacher: What you see in the next window?

Marian: I see a triangle.

Article: May 3 points still see black.

Alexandra: If we unite we make a triangle.

Serban: lines overlap.

Teacher: What shape are the faces?

Vlad: I'm equal, similar to figures from the first image.

Michael: If lines drawn between points get a square and a triangle.

Michael: Drawing from one point to another line, we can make a square and a triangle because we thought of a square and a triangle with equal sides.

Teacher: What made you face first?

Alexandra: First I did the square.

Marian: The first time I did the square.

Teacher: I did the first time the triangle?

Vlad was the first time the square to find the triangle.

Teacher: specifies that the first working model. What is a model?

Open discussion with Dani and addresses the question: What sports do you like? and further detail is what model football player, etc. are.

Michael: I want to become a doctor, but do not know who I neighbor.

Alexandra: Lady teacher is a model for us because we learn many things.

Article: Lady teacher is a model that is like a computer with a lot of information.

Vlad: He wants to be like his swimming teacher, who was national champion.

Alin wants to become an expert builder and his grandfather because he earns money.

Marian florist wants to be, he helps his parents and working together.

Spatial Orientation I

Project Activity – Cover

Objectives:

- To explore the instrument through his analysis of symbols;
- Explain the concept of orientation in space;
- To acquire the concept of a personal reference.

Mediation:

- Mediation the intention, reciprocity, and transcendent meaning to introduce a spatial reference system relative to highlight the need for representation and the existence of alternative routes to reach the same result.

Strategies Work:

- It will underline that the cover resembles the organization of the instrument Organization Point. Difference lies in the unique design of the adjacent boy who thinks. Do not know the contents of his thoughts and to formulate hypotheses must analyze this differential design of the previous board.

- It achieved a “brainstorming” to lead students to assess the significance of terms introduction trying arrow: symbol, sign, sign.

- Arrows indicate routes could, can discuss as a universal arrows used to indicate direction: the origin of the arrow in the eye is the subject: “I” as the central point. The arrow goes right where the subject is facing eyes, long committed to reach that point look at already reached with the speed of light. Direction is determined by topic (also proposes the concept of space analysis in relation to the subject).

Principles:

- *There are many alternatives to reach the same result.*
- *Is it possible to provide some aspects of the future without being guessed.*
- *It is necessary to eliminate the behavior of the test-error evaluation data are available and in route planning.*
- *It is necessary to think carefully and seek to predicted all alternatives before deciding.*

Pictures

Project Activity - Page 1 frogs

Objectives:

- Identify the thoughts, sensations and attitudes of people;
- To differentiate an achievable aspiration for an unrealized ambition;
- To transfer the principles derived in other contexts of life.

Mediation:

- Mediation the intention transcendent meaning and interpretation are given in actions and reactions of the two frogs. The need to control the behavior becomes obvious conclusion disengaged from the previous sequence.

Strategies Work:

- The look of the four successive images. It is necessary to understand the relationship between various events to understand the story: even private things may be indispensable for a correct interpretation.

- Targeting students to deduct some conclusions on the images. Signs are an economic and world to communicate.

Figure 1

- Frog on the left not only the elephant but assesses "victim". Helpful Items: line that starts from the eyes of frogs, including elephant back in front.

- Elephant go, not stop, which explains that no other figures. Frog on the right is not involved. We can not extract any consideration regarding the report with her character.

Figure 2

- Frog on the left that they see to want to be as big as elephant to give orders.

- Frog right see what happens, but do not understand, probably more than is getting alarm. Helpful Items: perplexity change in hip position, standing.

Figure 3

- Frog on the left continues to grow.

- Seems to be a danger. Helpful Items: frogs finger positioned as a sign of warning.

Figure 4

- First frog has grown so much that explodes.

- Other frog is sad. Helpful elements: expression of discomfort frogs and tears falling.

Principles:

- *An event can be seen in isolation but must be seen in that context of what precedes it and follows it.*

- *You have to differentiate between dreams with open eyes and reality, between what is possible and what is impossible.*
- *You should be aware that our objectives worthy investments to make and the risks that may occur.*

Suggestions for discussion:

- You have to appreciate and enjoy what we have and what we have? When should "play something safe and when the exchange must risk to achieve a result?"
- Human progress is the result non accepting status quo - of the desire for progress and persistence in meeting objectives. How to evaluate which of these targets are achieved and possibly not?
- Until you can determine the social, moral, before mutual interference in the freedom of others.
- Action of a single person in either direction good or bad is felt by the collective.

5. Conclusions

After going through a considerable number of activities have been based application tools in the first of the instrumental enrichment program were required students to write a brief letter that a person close to him say what he learned, what you liked and take what Why not take the fun activities that were Feuerstein method. We will present some excerpts from these letters that will ensue in attitudes, opinions, results and issues related to emotions and feelings of students. Students have decided to designate these *fun psychology*.

Since I started my psychology classes were more enjoyable, even if I did not really answer the questions Mr professor. The most pleasant thing was to say principles, which they write on some sheets.

I was very much enjoyed the psychology. At first I did not know what will happen and I was very nervous but in time I learned many things.

I want to tell you what I did last time at school. I learned many interesting things.

The more I liked it when written on some sheets.

In psychology I liked that we could say our views. When circumstances were amusing lark could. When the teacher did not help.

In psychology I liked than Mr teacher taught us to discover new things, to describe what we see and stories. Best was when we talked and I discovered geometric forms.

To tell you the things I learned at psychology. I have a teacher so great, named Daniel.

Taught us so much that I want to meet you and learn from him.

I liked that we nine hours. Which I liked is that we do every day.

I liked more time psychology. At first I did not know anything but then I understood what to do.

I liked that much work with cards that say principles.

I learned to point, to analyze geometric figures, to be honest.

I want to say first that I was very excited at psychology. While I liked. Why do not I liked was that we do more hours.

Dear Bogdan sorry that you have not been able to come forth to our school "Queen Mary". I want to tell you about a very interesting course, psychology course. In this course I learned to be more careful to get our minds and contribute to describe images.

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A COMPARISON OF THE NATIONAL TESTS ON MATHEMATICS FOR 12-13 YEARS OLD PUPILS IN ROMANIA AND SINGAPORE

IULIANA MARCHIȘ

ABSTRACT. Romanian pupils have constantly obtained results below the average on international tests. Pupils from Singapore have consistently done well on these tests. The goal of this article is to compare the Mathematics problems given in Singapore at the Primary School Leaving Examination (for 12 years old pupils) and the national tests in Romania for 7th grade pupils (12-13 years old).

Keyword: Mathematics education, international test, problem types.

ZUSAMMENFASSUNG. Rumänische Schüler haben an internationalen Prüfungen immer Leistungen unter dem Durchschnitt erzielt. Schüler von Singapur hatten konsequent gute Ergebnisse. Der Ziel dieses Artikels ist es die Mathematik Aufgaben die in Singapur an der Grundschulen Abitur (für 12 Jahre alte Schüler) gelöst werden müssen mit den Rumänische nationalen Testen zu vergleichen, die für Schüler aus der 7. Klasse bestimmt sind (12-13 Jahre).

Schlüsselwörter: Mathematik Bildung, internationale Teste, Problem-Typen.

Introduction

The Trends in International Mathematics and Science Study (TIMSS) is conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). In Figure 1 the Mathematics results of Romania and Singapore are presented. Singapore was the first on 1995, 1999 and 2003 tests and the third on the 2007 test. Romania has obtained much lower scores than Singapore, being in the second part of the list.

These poor results obtained by Romania have more reasons. Analyzing the Romanian school curriculum, it stops at the analysis level of the cognitive domain taxonomy of Bloom (Marchis, Ciascai, Ciomos, 2009). Reasoning, which is present at TIMSS test, is not covered. The real-life problems are missing.

In (Marchis, 2009) the problems given at PISA and TIMSS test are compared with those given at Romanian national tests. Problems given at international tests (PISA, TIMSS) are related with everyday life. Most of these problems have a long description of the situation, and pupils have to discover the data needed for solving the problem in this text. These problems cover all the levels of Bloom's cognitive levels. Most of the problems given on national Mathematics tests in Romania cover

only the *knowledge, understanding and application* cognitive levels, to solve them it is required to apply formulas or algorithms. These problems has a mathematical formulations, they don't have any connection with real life.

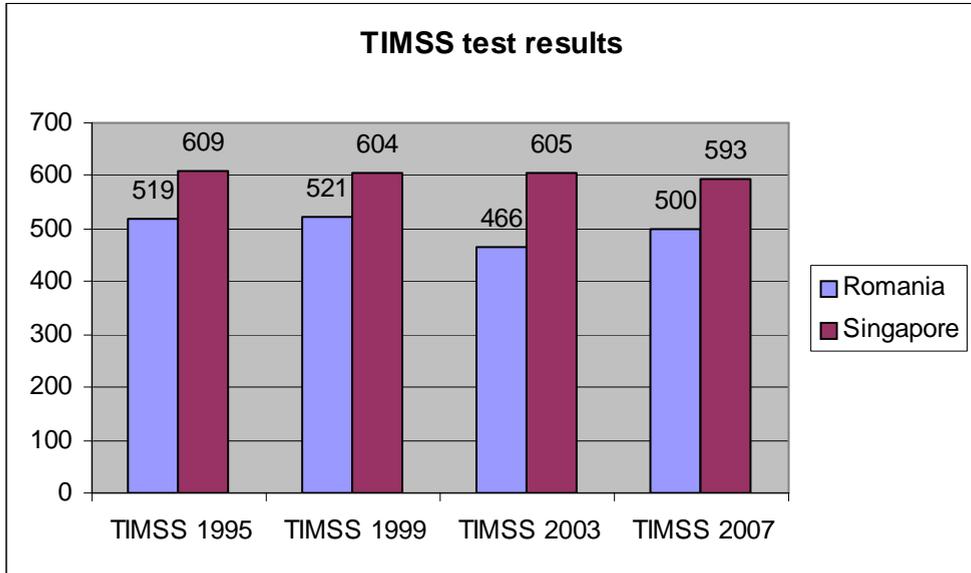


Figure 1. Comparison of the results obtained by Singapore and Romania on Mathematics TIMSS test (Gonzales et al, 2004; Gonzales et al, 2008)

The goal of this article is to compare the Mathematics problems given in Singapore at the Primary School Leaving Examination (for 12 years old pupils) and the national tests in Romania for 7th grade pupils (12-13 years old).

Mathematics Education in Singapore

In 1991 the problem-solving curriculum was implemented in Singapore (MES, 1990). According to this framework, mathematical problem solving requires skills (computation, visualization), concepts (numerical, geometrical, algebraic concepts), processes (reasoning, communicating, making connections, modeling, using thinking skills and heuristics), attitude and metacognition.

The implementation of this new curriculum had difficulties at the beginning. There was a mistaken view about Mathematics Education: pupils have to memorize formulae and practice routine procedures in order to be good in Mathematics. Thus for many parents it was difficult to accept this problem solving emphasizes (Lim, 2002). Another difficulty is the big number of pupils in classroom (above 40).

Teachers have the main role in implementing the problem-solving curriculum in schools. Fai (2005) studied the teaching practice of two 7th grade Mathematics teacher. Fai's conclusion is that the observed teachers spend more time on learning the concepts and skills acquisition and less time with problem solving. Yeap (2007b) presented the teaching techniques, which can be used in developing Mathematical thinking: providing, telling, modeling, and coaching. Foong (2002) considers that "there is a need to equip teachers with a bank of greater variety of mathematical questions for problem solving". Foong presented a classification scheme of mathematical problems. Two main type of problems are presented: *closed problems* and *open-ended problems*. Both type of problems are important to be used in order to develop pupils' mathematical thinking. Open-ended problems are often considered ill-structured problems, in which because of missing data or assumptions a correct solution is not guaranteed. Many real-life problems are open-ended. These problems enable teachers to see their pupils' thinking.

Primary school Mathematics textbooks introduce the new concepts with a simple explanation, often like in few words only (Hoven, Garelick, 2007). Yeap (2005) found, that beside giving a strong foundation in Mathematics, textbooks help to develop pupils' creativity. These textbooks extensively use graphical representation. Tasks, which develop creativity, can be organized in the following categories: tasks, which have more than one correct response; which require construction of verbal responses or generation of data; which encourage observation of a pattern or a relationship and use of strategies. In case of some problems, pupils are asked to solve the same problem using different methods, strategies. A common method used for problem solving in Mathematics textbook is the *model method*. This method helps students to handle information and solve complex problems by visualization (Yeap, 2007a).

Primary School Leaving Examination in Singapore

In Singapore the Primary school has 6 years, pupils between 6 and 12 years old attend it. At the end of these 6 years there is an examination on Mathematics, English, Science and Mother Language (Chinese, Malay or Tamil), the *Primary School Leaving Examination (PSLE)*.

The Mathematics exam is a two-and-a-quarter hours paper-and-pencil test, which contains 50 items, from that 15 are selected-response type. The remaining 35 items are constructed-response type. From these items 15 required pupils to write down their solution methods.

Yeap (2008) analyzed the released items from PSLE and classified them in *procedural items* and *challenging items*. The procedural items assess knowledge, computational skills, and routine procedures (see Figure 2). The challenge items require problem solving, the ability to handle unusual and new situations where routine procedures or algorithms can't be applied (see Figure 3). Yeap concluded that among the 196 items about a quarter are challenging.

The first procedural item presented in Figure 2 requires only computational skills. To solve third problem pupils only need to know how to calculate the area of a right-angled triangle. The second problem is a word problem, which can be easily solved by two steps: first calculating how much Lynn has to pay for booking the court 30 times, then adding this sum to the membership fee.

Find the value of $\frac{3}{4} \div 6$.

Lynn joins Tang Fitness Club. She pays a membership fee of \$45. She also pays \$5.50 each time she books a badminton court. She books the court 30 times. How much does she pay the club together?

A piece of wire is bent to form the right-angled triangle shown below. Find the area of the triangle.

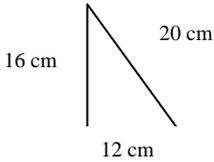


Figure 2. Procedural problem from PSLE (SEAB, 2005)

The solution of the challenging problem presented in Figure 3 is not so straightforward. Pupils have to construct the steps for solving the problem; they can't apply a known routine procedure.

Siti started saving some money on Monday. On each day from Tuesday to Friday, she saved 20 cents more than the amount she saved the day before. She saved a total of \$6 from Monday to Friday. How much money did she save on Monday?

Figure 3. Challenging problem from PSLE (SEAB, 2007)

Another challenging problem is presented in Figure 4.

A toy-maker has a rectangular block of wood 30 cm by 14 cm by 10 cm. He wants to cut as many 3-cm cubes as possible. How many such cubs can he cut?

Figure 4. Procedural problem from PSLE (SEAB, 2005)

National tests for 13-14 years old pupils in Romania

In Romania there are national tests two times a year for 7th and 8th grade pupils. Mathematics is present between the tested subjects. In the following, we analyze the 7th grade problems. On this test the first 4 problems, with 3 questions each, are very simple, the last 3 are a bit more complicated. For the first four problems pupils have to write down only the results, for the next three problems they have to present the way in which they solved the problems.

For this research, problems given in 2007/2008 and 2008/2009 school years are studied. The goal was to find out if these problems are procedural or challenging problems.

In Figure 5 simple procedural problems are presented. The first problem requires computational skills, the second one knowledge (to know what is a quadrangle), the third one routine procedure (how to solve a first order equation), and the fourth one application of a formula. The numbers in the brackets shows how many points from 90 pupils can obtain by solving the item.

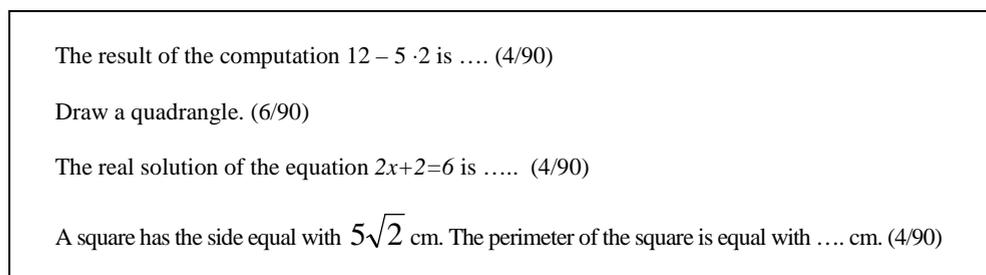


Figure 5. Problems given at Romanian national test (RNCC, 2008b; RNCC 2009)

In Figure 6 we see two word-problems. These problems are from the second part of the test, so the pupils had to write down in which way that have solved the problem. These problems can be considered procedural problems, as they can be solved using a simple equation.

The first problem is a routine problem, there are many similar problems in the Romanian textbooks. In this problem we can denote by x the smaller number. Then the bigger number is $17x+2$ (using that “if we divide the bigger number with the smaller one the quotient is 17 and the remainder is 2”). The sum of these two numbers is 110, so the equation, which have to be solved is $x+17x+2=110$.

In the second problem the unknown is the number of the years after which father will have twice of the age of the son. We denote this number with x . The equation is $2(18+x) = 42 + x$.

The sum of two natural numbers is 110. Find these numbers, knowing that if we divide the bigger number with the smaller one the quotient is 17 and the remainder is 2. (5/90)

The son is 18 years old, the father 42 years old. After how many years the father will have twice of the age of the son? (5/90)

Figure 6. Problems given at Romanian national test (RNCC, 2008a; RNCC, 2009)

The problems presented in Figure 7 are also procedural items. In the first problem pupils have to write $n^3 + n^2 = n^2(n + 1)$, then simplify by $n+1$. In this way under the square root only n^2 remains, so the result is n . In the second problem the have to know the formula for $(a-b)(a+b)$, then the calculations are simple. Even they do not know the formula, they can calculate the first multiplication.

Show, that for all natural number n the number $A = \sqrt{\frac{n^3 + n^2}{n + 1}}$ is natural number. (5/90)

Show, that $A = (2\sqrt{3} - 1)(2\sqrt{3} + 1) - 4(3 - 1)$ is a natural number. (5/90)

Figure 7. Problems given at Romanian national test (RNCC, 2008a; RNCC, 2009)

Most of the problems only require to know some concepts and/or to apply some routine procedures. Some of them are a bit more difficult, but all of them can be solved by methods learnt in school. So non of the studied problems are not challenging.

Conclusions

A quarter of the problems given at PSLE exam in Singapore are challenging problems, while non of the problems from the national tests in Romania are challenging. In Singapore pupils' mathematical thinking is developed by these challenging problems, they develop skills to solve non-routine problems. In Romania the main goal in many classrooms is to practice routine procedures, and this approach is encouraged by the national tests.

International tests use challenging problems too. So one of the reasons, why Singapore has good results on these tests and Romania not is the type of the problems solved in classrooms. As for many teachers the main goal is that their pupils obtain good results on national tests, the problems given in these tests have to be revised. It would be important to include challenging problems at national Mathematics tests in Romania.

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THE ROLE OF COOPERATIVE LEARNING IN ENVIRONMENTAL EDUCATION

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ABSTRACT. This paper follows the role of cooperative learning in the approach of a very important subject for pre-university learning: education for protection of the environment.

The original contributions have been pointed out by the realization of certain projects through extra-curricular activities, applied in two schools belonging to the Apuseni National Park (the school from Rachitele and the second from Garda). Cooperative learning has proved to be a structured and systemized teaching strategy in which small groups work together to achieve a certain common goal. The base of cooperative learning is that subjects who work as a team are capable to apply and synthesize knowledge in various and complex ways, learning at the same time better than through individual work. In this way, a major goal of our days is being achieved: the student becomes its own “perfecting agent”.

Key words: cooperative learning, environmental education, ecological education.

ZUSAMMENFASSUNG. Diese Arbeit hat als Ziel das Lernen durch Mitarbeit in das Herangehen einer Thema mit grosser Bedeutung für das Preuniversitärer Schwes: die Erziehung für den Umweltschutz. Die originelle Beiträge wurden durch außerschulische Projekte durchgeführt. Diese wurden in zwei Schulen aus den Nationalpark Apuseni Berge angebracht (die Schule aus Racchetele und die aus Garda). Man hat beobachtet , dass das Lernen durch Mitarbeit eine strukturierte und schematisierte Strategie ist, in deren kleine Gruppen zusammen arbeiten um ein gemeinsames Ziel zu erreichen. Die Voraussetzung des Lernen durch Mitarbeit ist dass die Teilnehmer welche in eine Gruppe arbeiten, fähig sind, ihre Kenntnisse in verschiedene Arten zu benutzen, so dass sie zusammen besser lernen als alleine. In diese Art erreicht man ein Desiderat der aktuellen Etappe: der Schuler kommt dazu, dass er sein eigenes “Perfektionisierungsagent” wird.

Schlüsselwörter: kooperatives Lernen, Erziehung zum Umweltschutz, ökologische Bildung.

1. Introduction

Ecological education is the process of recognizing values and understanding concepts, in the aspect of forming and developing capacities and attitudes, necessary for the correct understanding and appreciation of the interdependence

between human being, culture and the environmental factors. The education for the environment involves not only developing a correct behavior towards the surrounding environment but also active and well thought involvement in the process of taking decisions connected with environment. As Democrit used to say long before our era “nature and education are similar, because education transforms the man, and through this transformation it creates nature” (www.lefo.ro).

During time, ecological education has received many meanings: the study of nature, education outside school, education through preservation of nature, education for the environment, about the environment, in the environment, through the environment. Many authors consider it more than a school subject even if in some countries it is a school subject, a preparation for life and an aspect of life in which youngsters can interfere through direct action. People must feel that they are part of nature, and develop a sense of responsibility towards it. They also must to have choices. The first step must be taken through formal education. **Ecological education** must not be reduced to the study of biological sciences, it is also necessary to be focused on a better understanding of environmental issues and the fact that practices which damage nature are not to be accepted in a modern society.

The accomplishments nowadays show that the 21th century is a period of “great discoveries” and transformations of the human civilization, but also of complex and unexpected effects upon life.

2.1. Environmental education - a very debated topic

A presentation of environmental problems must begin with the causes of the phenomena and it must end with the positive alternatives and ways to solve. In other words the environment as a subject of education for the environment includes not only nature but also society, culture, economy and politics.

The surrounding environment appears as a multidimensional reality that includes not only the natural environment, but also the activity and creation of human being on a double position: one like a component of the environment and the other a consumer of it.

The education for the environment:

- Awakens and develops the feeling of love for the environment
- Offers information about the environment
- Practices, through school policy and family participation, throughout behavior, the careful usage of water and electricity, recycling of paper and other materials, the consumption of naturally produced food and sometimes even the production of it, a favorable attitude towards nature.

The concern for the environment must be an essential component of moral, spiritual, social and cultural development of the young generation. In developed countries, one of the main criteria for elite institutions consists of the importance given to ecological education. From the youngest age children must be familiarized

with environmental problems, problems they shall confront again in the future. We first need to develop ecological education, in order to develop children's ability to make well thought and environmental friendly decisions. To our biggest regret, ecology as a subject and ecological education as a component of general education haven't been included yet in school curricula. In this way the opportunity for young people to learn about the environment, about the main local, regional or global ecological problems, is missing which is why they are not given the possibility to create a positive attitude and an attachment towards the environment in which they are developing. It is for these causes that the educational role of Non Governmental Organizations is growing, being called to fill in the gaps of national strategy concerning ecological education.

Ecological education can be done through any kind of activity: school activity, during biology classes through the introduction of nature preservation elements (knowing rare species of plants and animals, endemic species, trees living shells species, glacier relives) after school, scientific, literary, artistic, sportive, activities. The forms of that are diverse: observations, experiments, scientific tales, drawings, practical activities, walks, excursions (students get to know the ecosystems, the relations between the organisms and the environment), movement games, tourist orientation, ecological maze, exhibitions, TV shows, expeditions, camps, ecological plays, contests.

2.2. Principles followed in the education for the environment:

- Approaching the environment as a whole: natural and artificial, technological and social, economical and political, cultural and historical. The education for the environment is a continuous process, beginning with kindergarten and continuing in all formal and informal stages.
- Exploring major ecological problems from a local, regional, national, international point of view so that students get to know environmental factors from other regions.
- Focusing on present and potential environmental problem, taking into consideration their historical evolution.
- Promoting local, national and international values and necessities in order to prevent and solve environmental problems
- Discovering the symptoms and the real causes of environmental problems
- Promotion of cooperative learning

3. Cooperative learning

Cooperative learning is a learning structured and systemized strategy in which small groups work together in order to achieve a common goal. The base of cooperative learning is that subjects who work as a team are capable to apply and synthesize knowledge in various and more complex ways, at the same time learning better than in the case of individual study.

Johnson, D. W, and Johnson, R. T. had written a lot about cooperative learning. Their study (1989) involves 193 cases, comparing the effects of cooperative learning with the ones of the so called “traditional”. In only 10% of the cases the results of individual methods have been more effective. Team work develops students’ capacity to work together- an important component for the life and activity of future citizens.

Many names have been attributed to illustrate collaborative group study, such as:

- cooperative learning
- collaborative learning
- collective learning
- community learning
- mutual learning
- team learning
- group learning
- circular learning

Cooperative learning determines personal development through self conciseness activities in small groups. It requires tolerance towards different ways of feeling and thinking, valuing the students’ need to work together in a friendly environment.

Cooperation (co-work, work together with somebody) implies collaboration (active participation in realizing something, based on proposal and idea exchange).

Even if these two notions are synonymous, we can still make some meaning delimitations, by collaboration understanding the form of relationship between students, which consists of solving common problems, and in which everyone contributes actively and effectively, and by cooperation understanding a form of interpersonal/inter-group learning, study mutual action, which results from the mutual influences of involved agents. Cooperative learning implies conjugated efforts of many persons (pupils, students, professors) in order to achieve common goals throughout influences benefiting everyone involved.

Collaboration is focused on attributions and the cooperation is focused on the process of realizing the demand.

By comparing and contrasting cooperation and collaboration we can highlight the following characteristics:

Competition and cooperation are practices met especially in contemporary school and are both necessary. Competition becomes destructive for the harmony of his educational climate when it is exacerbated and becomes a goal in itself. Teachers should balance the two forms of organization of the educational activity, by creating group learning opportunities that favor and maintain constructive competition (Naumescu A., 2008)

3.1. The principles of cooperative learning:

Cooperative learning is based on the following principles:

- Positive interdependence, according to which the success of the group depends on the effort of all its members. Students are guided towards a common goal, stimulated by collective appreciation, the result being the sum of all the efforts. Each student has to believe that he depends on the other members of the group for the learning activity and above all that he is responsible for its success. Students who have a positive interdependence will not only be responsible for their own formation but they will also encourage the others to learn.
- Individual responsibility that refers to the fact that each member is responsible for the task to solve. Students are curious to find out which is their responsibility and whether the others assume responsibility or not. This well structured activity shall bring success to both the individual and the team. Each member of the team has a well defined role and is responsible for realizing a small part of the group's task, but with the help of the others. The group as a whole bears the responsibility for the success of all its members. If grades are to be given, then there should be two of them: one for each individual and one for the whole team.
- Forming and developing social skills, stimulation of interpersonal intelligence which refers to the ability to communicate, receive support when you need it, offer help, capacity of solving conflicts. Students are being thought, helped observed in their usage of social and collaborative skills which increases the efficiency of team work.
- Face to face interaction, which implies a direct contact with the work partner, arranging the seats in the classroom so that small interaction groups where students can encourage and help each other, could be created.
- Dividing tasks inside the group and reflecting on the way these tasks will be completed by each member and by the whole group.

In cooperative learning the following principles are being respected: equality, anti-hierarchy, anti-authority and tolerance towards each other's opinion and avoiding labeling. The teacher integrates himself in the collaborative activity of the students, taking part as one of the members or by offering his help animating and stimulating the activity. Educational agents regard each other as people not as roles. Evaluation is a democratic exercise of power inside the teamwork of students and teachers.

3.2. The group- the focus point of cooperative learning.

The direct involvement with the task is a condition for activism and insurance of a good study.

It was stated that "students learn better when they care about what they learn, when they are directly motivated to do something, when there is a goal, a responsibility, a commitment towards what they have to do" (Atkinson, J., Raynor, O., 1974)

While debating on the structure of the student- teacher relationship (Deutsh, M., Horstein, H. A., 1978) asked themselves the following questions:

When is study more productive, when students work alone or when they are part of a group?

Which are the differences that appear in the interaction between students and in the quality of the learning process, due to collaborative or competitive relations between them?

The complexity of the matter, determined many researchers to analyze the factors that facilitate or prevent group activity. Here are some of the factors which facilitate cooperative study.

- Stimulation regarding the task is better due to the presence of others.
- The resources of the group (memory, attention, depositing space) are better than in individual cases.
- There are big chances if among the members of the group someone is capable to discover the solution.
- Mistakes are being compensated: despite the mistakes the general result of the group will be more precise than that of the individual taken separately.
- Blind spots are being corrected. It is easier to spot other people's mistakes rather than your own.
- The stimulation of new ideas is a result of cumulated interaction "because every member develops the ideas of an other"
- One can learn from other people's experience. There are many proves that one of the most usual and effective forms of learning, is the observation of the activity of others in the process of solving problems.

Among **the factors that could bring difficulties in group activity**, we remind the following:

- The opposition of goals, interests and customs of the members can sometimes make collaboration extremely difficult.
- The difficulties in communication tend to increase as the group grows larger, and for the shy it is harder to participate actively when in a large group.
- The difficulties in coordination also grow as groups get bigger, so it gets harder and harder to make a joined and integrated effort, without spending a lot of time on solving or preventing coordination difficulties.
- Excessive dependence on other members can be favored by group activity. The fact that some members of the group rely on others more capable, leads to laziness and avoiding their own responsibilities.

The superior quality of group products is being sustained by some researchers in a very optimistic way ("the level reached by the group out passes the one of the smartest student that uses his own resources exclusively") and by others in a more moderate way ("although the group is usually better than the average individual it rarely beats the best one")

Comparing work in a group with individual work (Walvoord, B. F., 1986) specify that “according to the nature of the task, the individual resources of the group members and the way they interact the work of a group could be inferior, equal or superior to that of the individual confronted with the same task.”

Analyzing the group dynamic as an instrument of psychosocial action (Dubal, G., 1969) specifies that “a dynamic field based on the interdependence of the members, who at their turn take all its effects is being constructed”. This fact opens the way for using the group as a system of development and psychological change” (Hare, A. P., 1962)

There are three general types of groups:

- informal study groups.
- Formal study groups
- Team work (adapted after Johnson, D. W., et al., 1991)

Informal study groups are created at once, temporarily, throughout the solicitation that students should form a team by simply turning towards their desk mates and discuss about a given theme for a few minutes. Same as rapidly groups of 3-4 students can be created in order to solve a problem, find solutions for a situation or answer a question.

The teacher can at anytime create informal groups in the classroom, of any size, in order to appreciate the degree of understanding of the students regarding a certain material, or for offering them the chance to apply what they have studied or maybe even just for changing the organization of the class in order to increase motivation and attention.

Formal study groups are teams that have been previously established in order to solve a certain task, make an experiment in the laboratory, and write a research report.

Students work together more time (a few days or weeks) or until they have finished the research project.

Team work implies the development of collaborative work for a long period of time (even one semester). Teams establish their own rules and responsibilities and also the work plan. The activity is based on cooperation between members and mutual support.

The final evaluation is usually made by giving all the members the same grade resulted from the measurement and appreciation of the common result. This fact stimulates co work and mutual help and does not encourage competition inside one team but between different teams.

There are **a few rules** one must respect when organizing study groups (Johnson et. al., 1991)

- The elaboration of a work plan which contains: the important elements to study, the tasks for each member, sub-tasks, applications, placement, study sessions.

- The teacher's explanations on the importance of the topic, the advantages of team work for solving it.
- Offering the students a socially relevant theme to work on, a problem with large applicability whose importance should stimulate their participation.
- Choosing an optimal number of members of each group (4-5) and creating an heterogenic team, in order for everyone to have the opportunity to learn from each other, offer something and bring his contribution where he is better prepared.
- Creating the possibility for every member to be advised, guided, and have accessed to information and materials.
- Creating a proper work atmosphere and space.
- Explaining the way of evaluation for collective work, and for each individual.

To avoid the situation in which some students work for others (Walvoord, B. F., 1986) recommends the following strategy: the teacher could ask students to present under anonymity the situation registered by each of them , regarding who made special efforts in the activity and who did not.

If most students indicate that one team member had the smallest contribution, that one shall receive a smaller grade than the rest of the group.

In this way, each member will be mobilized. The strategy works, especially if students have the opportunity to discuss about this inside the project, and the one involved has the opportunity to change his behavior (Walvoord, B. F., 1986).

The interactive group methods determine and stimulate collaborative work developed by the ones involved in the activity (the students), in which everybody comes with something and nobody leaves without a thing.

The profit belongs both to the group (solving the problem, finding the best solution), and to each and every single individual (the results obtained, the effects appeared in the cognitive plans, emotional-affective, a new knowledge).

3.3. The steps of cooperative learning:

Cooperative learning implies a dynamic and a continuously sustained activism. The steps of team work strategy involve taking into consideration some factors for collectively solving problems.

The first step consists of forming the work group. The members have to have certain qualities in order to facilitate solving the problem: be tolerant with the opinions of the companions, have good communication skills, they should not be selfish, give and receive help when needed.

The second step takes place when the participants confront with the situation to be solved and are being stimulated to work together in order to solve it. This is where the familiarizing with the elements of the problem, the analysis of the priorities and responsibilities takes place.

The third step is destined to reflections, incubation, attempts. This is the phase of documentation and research that can take a long time or a shorter one.

The fourth step is for debates, when ideas are being confronted, errors and strong points are being analyzed. “the quality of cooperative learning depends on the quality of democratic debate between students the double request for intellectual correctness and communicational ethics (listening and respecting the partner, trying to understand his opinions, his way of thinking, needing different points of view in order to build your own way of thinking” (Bocos, M., 2002)

The fifth step refers to structuring the end of the debate, drawing conclusions and solving the problem. The integration of new acquisitions in the existing system by restructuring the old ones according to the new ones.

The conditions for the development of effective cooperation refer to good relationships between the member of the group, universal agreement on the work plan in order to touch the common goal, adopting a common way of communicating results and evaluating the solution.

3.4. The advantages of cooperative study:

The strategy of cooperative learning gives students the opportunity to work together in a climate of mutual help and support. The group gives the opportunity to test ideas, revise opinions and develop interpersonal intelligence.

Cooperation facilitates an open relationship between partners, develops attitudes based on trust, helping the formation of a positive attitude regarding school and learning. Team work has important effects on the personality of the students, the presence of interaction partners representing an intellectual stimulus and a start for the exchange of opinions and information.

The abilities of the teacher necessary for sustaining cooperative study:

Cooperative study requires intellectual and practical effort from both the students and the coordinating teachers. The teacher has to possess the following qualities:

- Energizing competence: giving the fact that he has to determine students to get involved in solving the problem.
- Empathic competence: ability to work with students transposing in their situations. The teacher gets to know his students better and improve communication.
- Playing competence: capacity to respond to students’ games that make study more attractive.
- Organizing competence: ability to organize the group into teams and impose and maintain rules regarding cooperative study. The teacher can intervene in critical situations.
- Interrelation competence: will to communicate to the students, in order to develop social abilities for optimal integration in a group. Tolerance and

opening towards the new and encouraging of originality will create similar qualities in his students.

Along with these abilities the ones necessary for every teacher should not be neglected:

- Scientific abilities
- Psycho-pedagogical abilities
- Managerial and psychological abilities that involve educational management

The role of the teachers get a new dimension, different from the traditional vision where he was just a supplier of information's accompanies and guides the students on his way to knowledge.

4. The teaching experiment:

4.1. Motivation

The major objective of didactic research consists of supplying teaching process with practical activities of cooperative study in the frame of environmental education.

Original contributions have been materialized in extra-curricular activities realized in two schools belonging to the Apuseni National Park (the school in Rachitele and the one in Garda).

In this teaching experiment have been involved 200 students and teachers from the above mentioned schools.

This experiment followed the interdisciplinary aspects between different areas (geography, biology, chemistry, drawing, music, mathematics, physics).

The role of cooperative learning according to age differences (7-14 years) regarding sciences has been highlighted by extra-curricular activities.

4.2. Elaboration of didactic materials:

The objectives of extra-curricular activities are the following:

- The contribution at the formation and development of communication abilities, as a base of positive attitudes towards the environment.
- Forming a system of knowledge, developing participative capacities, a sense for esthetic.
- Getting to know the human beings and phenomena in the environment, plants and animals protected by the law.
- Gaining knowledge about the man- environment relationship and education of children in order to maintain the health of the environment.
- Knowledge of the possibilities to protect and conserve nature.

In the process of elaboration of materials several steps have been made: a projecting step, a documentation step and a last step of practical development of teaching materials.

The projects for extra-curricular activities have an original structure and elaboration, an accessible and applicable form.

4.3. The projects for after school activities:

Project 1. – 7th grade

Theme of lesson: **The pyramid of life**

Objectives:

- O1- Describing the elements of an ecosystem
- O2- Establishing relationship between the elements of the ecosystem
- O3- Deduce the importance of equilibrium in the ecosystem.

Methods: problematization, didactic games

Materials:

Small cardboard boxes covered in white, colored pencils, glue, “pyramid of life” game.

General considerations:

The ecosystem is a unity that exists in a certain time and space. It has the following components: physical components (non life components- solar energy, climate, rocks, water) forms of life (living components, man) and relations between them.

The word **ecosystem** derives from the combination of other two terms: **eco** (house) and **system** (interdependent elements that function as organized whole). So the **ecosystem** is an interaction between living and not living elements in the nature.

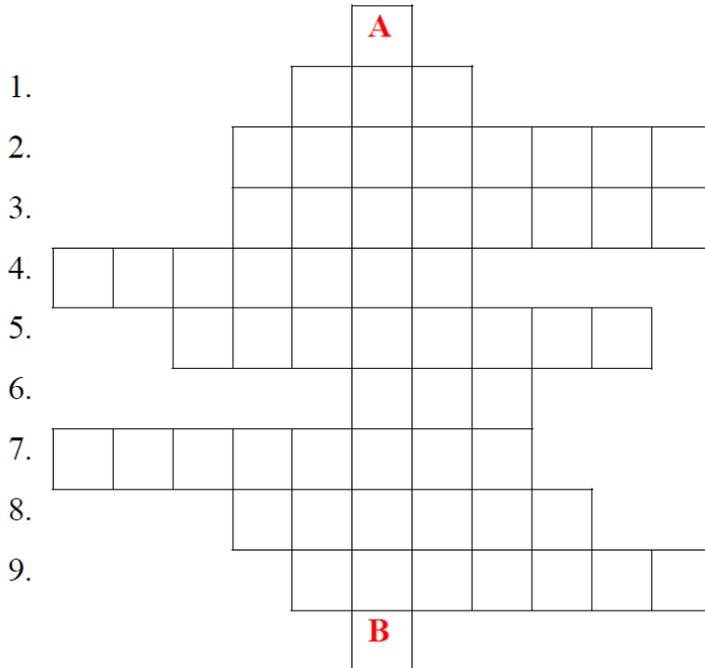
Development:

Give a box to every child in which he should draw or keep as a secret, an animal that lives in our country. Discuss about energy and food: “Which is the source of energy for the earth? Who uses solar energy? Relationships inside an ecosystem.”

Plants will form the base of the pyramid because all animals rely on them, directly or not, when food is concerned. Everybody that drew a plant shall arrange their box at the base, those who drew an herbivore shall put it on top, then the carnivores, and then “third range consumers”. As always most children shall be on the top as they find it funnier to be a wolf or leopard, than flower or mouse. The more boxes on the top the harder it will be to build a stable pyramid. Some predators will have to give up their position. Challenge children to build the pyramid once again so that it can sustain everybody.

Evaluation:

Shall be done by completing the crosswords “The pyramid of life”



Answer the following questions:

1. Elements with or without life in an area form an.....
2. The atmosphere consists of a mix of gases called.....
3. Small organisms that decomposed vegetal and animal remains are.....
4. The terrestrial layer that contains all living creature is
5. Animals that feed on plants are.....
6. The support in which plants fix their roots is
7. The hunter is the.....
8. The solid form of water.....
9. According to the way he feeds man is an.....

Finalizing the experiment, the results:

Based on the evaluation papers a top has been made and the first 20 children have won a trip to the mountains. The excursion had a didactic purpose and we planes visiting a cave.

CONCLUSIONS:

After the application of extra-curricular activity projects and teaching games the following conclusions can be drawn:

- The environmental education has very special importance in developing positive attitudes towards the environment and has to start at early ages and continue throughout the learning process.
- The protected areas are still seen by many peoples in their “conservative” meaning, being considered real oasis of wild nature in the context of economical development, which have to be protected only for conserving the populated species. This is why this kind of theme has to be approached by the education for the environment.
- In the nature there are leaving creatures with common root, having morphological, physiological, biochemical and ecological special features that have a relatively high stability which are rather stable along the generations. Such natural units have been called species. In biology, the specie is unity at the base of biodiversity.
- Pollution appeared in the same time with the human being, did but it has been developed and diversified with the evolution of human society, becoming one of the most important preoccupations for scientists, specialists of different areas of science and technology, states and governments and all terrestrial population.
- The elaboration of conceptual maps, self observation, and using the gaining during evaluation, are favorable uses of student centered evaluation, his process of learning more than on the results.
- Cooperative learning is a structured and systemized learning strategy in which small groups work together to reach a common goal. The base of cooperative learning is that those who work in teams are more capable to apply the accumulated knowledge in various and complex ways learning better then in the case of individual work.
- The advantages of cooperative learning include:
 - the knowledge on individual differences
 - -the development of interpersonal relationships.
 - involving students in the learning process
 - more occasions for feed- back.
- Practicing different methods for teaching is important to discover the power of understanding of the students. Using cooperative learning as a tool gives students the chance to develop social and interpersonal capacities that determine them to express easier their thoughts and opinions.
- The importance of environmental education during primary and secondary school is essential for the future of a teenager and don't forget that our youth will be the “tomorrow society” (Naumescu, A., 2006).

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THE IMPROVEMENT OF THE DIDACTIC COMPETENCE PROFILE THROUGH EDUCATIONAL INTEGRATION OF THE NEW TECHNOLOGIES (Part I)

CĂTĂLIN GLAVA

ABSTRACT. The experimental research we undertook with the purpose to improve the didactic competence profile through the educational integration of the new technologies is situated in the pedagogical field of the investigation-action that have in view the improvement of some didactic strategies through the experimentation of new methods of action, as a researcher directly involved in the didactic process. The study regarding the development through the modelling of the didactic competence profile has as support the theories, the models and the considerations met in the specialized literature regarding the development of the professional competence profile for the didactic career, the principles of efficient introduction of the new technologies in educational contexts and the modelling as training environment of the competences.

Keywords: didactic competence, new technologies, e-learning, modelling.

ZUSAMMENFASSUNG. Wir durchgeführt eine experimentelle Forschung um das didaktische Kompetenzprofil durch die pädagogische Integration der neuen Technologien zu optimieren. Unsere Forschung gehört des pädagogisches Bereich der Aktionuntersuchungen. Dieser Bereich zielt auf die Verbesserung einiger didaktischen Strategien, durch das Experimentieren der neuen Methoden der Tätigkeit, als Forscher aufgestellt, der direkt mit dem didaktischen Prozess gewesen wird. Die Studie betreffend die Entwicklung durch das Modellieren des didaktischen Kompetenzprofils hat als Unterstützung die Theorien, die Modelle und die Betrachtungen trafen sich in der Fachliteratur über die Entwicklung des Berufskompetenzprofils für die didaktische Karriere, die Grundsätze der effizienten Einführung der neuen Technologien in den pädagogischen Kontexte und die Modellierung als Trainingsumwelt der Kompetenzen.

Schlüsselwörter: Didaktische Befugnis, neue Technologien, E-lernen, entwerfend.

1. Conceptual and methodological foundation of research

The experimental research we undertook with the purpose to improve the didactic competence profile through the educational integration of the new technologies is situated in the pedagogical field of the investigation-action that have in view the improvement of some didactic strategies through the experimentation of new methods of action, as a researcher directly involved in the didactic process.

The study regarding the development through the modelling of the didactic competence profile has as support the theories, the models and the considerations met in the specialized literature regarding the development of the professional competence profile for the didactic career, the principles of efficient introduction of the new technologies in educational contexts and the modelling as training environment of the competences.

Here are, briefly the theoretic assumption, which constituted the support for the realization of the experimental steps:

The didactic competence profile represents a set of complex acquisitions of learning with operational and instrumental value, which is structured around some cognitive accumulations, but also emotional-attitudinal accumulations, and it is the object of the permanent recrystallization, specification and evolution, generated by the integration of the practical and theoretical experiences, which appear on the way.

This process of continuous acquisitions and crystallisations represents in fact the process of professionalizing for the didactic career, step which begins in the initial training stages and continues while practicing the profession, through the integration of the direct professional experience, but also through specific steps of permanent training;

The didactic competence has a dynamic character given by: addition of the way in which the professional competence profile is understood by 1.educational values, policies and strategies, the present situation on national level, the semantics of the concept of quality in education and the official principles of insurance of the quality in education, 2 by the competences addition to the way in which the official imperatives on local level are understood of the institution which pursues the satisfaction of the beneficiaries of the educational program and 3. the competence addition to the approach imperative of the future evolutions of the society and knowledge.

A viable model of construction and development of the didactic competence profile it structures in turn of two essentials attributes of the didactic career: the action and the reflection. Both of them have as object components of the external environment, of the context in which the didactic profession is practiced, but also of the internal environment, personal. The action and the reflection guided external have in view the consolidation efficiency of the design steps of the didactic activities, communication, the organization and the leading of the learning activities, the class management and of the exceptional situations. The action and the reflection guided internal reflects the teacher interest for his professional evolution through storing of knowledge and continual classifications and for the indicatory respecting of the didactic services quality, and of the officials professional standards.

The reflexive capacity of the teaching staff represents a particular competency field, the reflection having the force to secure the premises for the constant development of all the others professional competences.

The management competences of learning and of the class have in view the creation of an educational context inside the class through the efficient management of the interactions and of the learning activities during the didactic process.

The curricular design competences integrate the capacity to design efficient learning situations through the identification of the prior finalities that interacts with the contents, with the didactic methodology for outline an educational context with real instructive and formative valences.

The usage competences of information and communication technology does not reduce to a set of accessing techniques abilities of the new technologies, but also to the capacity of the ICT applications construction and unrolling which encourages teaching and learning. The educational insertion of new technologies does not justify if it is realized with a scope, but only in situations in which those resources provide an excess of quality to the teaching process and improve the learning of students.

Consequently, for the assuring of the efficient insertion of the new information and communication technologies into the educational program is necessary the description of the ICT usage competences in the context and in relation with other components of the didactic competence profile: e.g.: intrinsic relation with the design and management competences of the learning situations.

The recent trends and tends in the educational theory and practice are on the one hand, determined by the wide acceptance in all the acting fields of the new information and communication technologies and, on the other hand, it constitutes into a favourable environment for the implementation of this technologies in the learning system.

Generally, the education and especially the development of the didactic competence profile presume a totality that cannot be “de-structured” into his constitutive elements, and for this reason the knowledge and the possession of the whole group, of the global significance can realize under optimum conditions through modelling.

The identified development models are more than design techniques of some didactic efficient activities that presume the insertion of new information and communication technologies into the activity with students. Their educational usage implies the re-thinking and the re-structuration by the teacher of the entire set of classical design models but also of persuasions regarding the teaching and the efficient learning, the teacher’s role and of the resources into learning, the importance of continual training.

Because of the fact that the searching theoretical premises that had been presented at the end of chapter three and had constituted the base of the researching ascertain start, we will expound further on the base hypothesis and the secondary adjacent hypothesis. This hypothesis that had been formulated starting from the theoretical premises mentioned above and from the premises obtained because of the undertaken searching results.

The Basic Hypothesis:

The usage of a design model for the didactic activity that presumes the usage of the Internet resources and of a model of organizing the class on a virtual level contributes to the development didactic usage competences of ICT and offers favourable context to the significant development of the curricular design competences and the management of learning and of the class belonging to the teaching staff.

We thought to analyze experimentally the way in which the introduction of some educational contents that have in view the development of some didactic competences through two technological models – BSCW and WebQuest – into the training curricula of the teaching staff, will stimulate not only the technological competences of the new technological usage in the educational context, but also the competences of curricular design and of class management.

Secondary Hypothesis

SH1: The usage of the model of virtual classroom offered by the cooperation platform BSCW determines the development of competences of cooperation, team communication, learning control and supervision, time management, and implicitly the development of learning competences and students class management, fact which is objectified in the quality and incidence of the platform's activities.

For the beginning we think of analyzing the impact of the BSCW platform in the development of the interrelation, communication and cooperation abilities, analyzing the quality, quantity, type and incidence of the subjects activities on the platform. These data will permit us to draw out some conclusions regarding the efficiency of the usage of a platform on-line in order to form didactic competences necessary for learning management and a students' class management.

SH2: The usage of the WebQuest model of the didactic activity design using the Internet resources, leads to the development of some specific competences of didactic design, fact that is objectified through the didactic quality of the design products realized.

The second aspect that we think of demonstrate is the fact that the WebQuest model, used for design the didactic activity which would capitalize mostly the sources of information on-line, contributes to the development of some abilities of design of the learning tasks, of the instructional context, of the real learning process, of the evaluation step, abilities integrated into what we call the didactic competence of curricular design.

SH3: The parallel usage of the two techniques determines the significant development of the teaching staff's competences of using the information and the communication technologies in the educational context.

The third researched aspect refers to the demonstration of the fact that using the work platform through BSCW cooperation and the design model which

capitalize the Internet resources, WebQuest, we can contribute to the improvement of the technological teaching staff competences.

We mention that, between the bounds suggested by the specific hypothesis already mentioned, we thought of validate through experiment the theoretic model of the didactic competence profile described at the end of the first chapter.

Actions hint by the researched.

- The selection of the contents' units from the psycho-pedagogic curricula for the teaching staff training that will be modelled through the medium of BSCW and WebQuest;
- The integration of the two implementation models in the selected contents teaching.
- The didactic efficiency analysis of the two implementation models through the performance guides observation that proves the training of some didactic competences.

The experimental investigation developed through the medium of some content unities from the area of the Education Sciences, the subject The Theory and the Instruction Methodology.

From the content unite *The Management of learning and of the students class* we used the following themes:

- the whole class organization
- ways of didactic cooperation and communication
- levels of interaction
- time management
- time guiding and mediation

From the content unite designated to *The Didactic Activity Design*

- the formulation of the work tasks
- the anticipation of the learning process imposed by the learning task
- the sources selection and management
- the formulation of sets of evaluation and auto-evaluation criteria and performance indicators.

The third modelled content was *The Reflection over the Didactic Activity*, with the stress on themes of feedback and auto-evaluation.

In this context, the ***independent variables*** were the simultaneous introduction and manipulation of the two ways of didactic modelling of the educational implementation of the new technologies briefly described at the end of the third chapter:

- The didactic design technique WebQuest – a model of design the didactic activities organized around the information Internet resources.
- The work on-line platform BSCW—is a virtual class model. Through the medium of this platform, we recreated a class on a virtual level, so the

subjects were in the situation of, interaction, communicate and cooperate as in a real classroom, but having additional communicational facilities.

The dependent variables, meaning the variables, which we expect to change because of the independent variables, are:

- The quality and the level of development of the competences, sub-competences and didactic abilities of educational activity design, more precisely of the abilities of learning tasks formulation, of describing the instruction process, of searching and offering bibliographic resources, of outlining the evaluation system and of reflection regarding the didactic activity.
- The quality and the developing level of the competences, sub-competences and didactic abilities of learning management and students class management, meaning the abilities and competences of inter-relation, of communication through various channels, of cooperation for solving the individual and group tasks, of sharing the resources and of a judicious time management.
- The quality and the level of competences' development, sub-competences and didactic abilities of using the new technologies in pedagogical contexts.

Being given the experimental conditions and the means nature, we decided to realize an intra-subjects experimental design. We took this decision because of the fact that the attendance to the training course that we proposed, course which practically becomes the experimental mean, did not have a correspondent in another type of development course similar from the point of view of the objectives and content, so it would have been impossible for us to constitute a control sampler that would respect completely the conditions imposed by pedagogic investigators' demands.

We thought to realize a combined sampler, using both probabilistic sampler and rational selection of the subjects through the population stratification, for increasing the relevance level of the sampler. (Bocoş, M., 2003, pag.61).

After analyzing the ascertain investigation results, we decided to appeal to with subsequent sampler of a few selection criteria of the subjects, through stratification.

The criteria in the subject's selection were:

- active teaching staff in education
- didactic degree: minimum the exam confirming a secondary-school teacher in his post
- the minimum level of operation on the computer: basic knowledge and practice about writing a text in MS Word, directors creation, documents management, e-mail communication.

The total number of the involved subjects in the experiment was **115** teaching staff and students from the cities Cluj-Napoca and Târgoviște. Among

these **61** subjects, made part of the group from Cluj-Napoca, in this group being included all the students of the sampler, and **54** subjects formed the group from Târgoviște.

Following the stratification criteria, we obtained the following assignment of the 115 subjects involved in the experiment

Professionalization: Oldness at the department, Educational level Curricular aria: Gender representation Place of work: urban, rural

CONCLUSIONS

Our research intention was that of verifying if the didactic design and management competences modelling of the educational activity are possible and efficient in the context of using new didactic design and learning and class management models unprecedented through novelty elements, which integrates. These didactic models have in common the educational usage of the new information and communication technologies and illustrates one of the most important contemporaneous trends and accumulations into the theoretical and practical field of teaching and learning.

The WebQuest didactic design model and the one of BSCW learning and class management were selected starting from the assumption according to which the teaching staff confrontation with novelty elements such as ICT educational usage determines them to reconsider their own cognitions and beliefs regarding the didactic design and learning and class management specific, on the one hand and their own practices of educational design and management on the other hand.

Putting in correlation a new educational paradigm generated by the usage in the learning system of the new technologies with a new methodological approach in the field of the specific didactic competences development- didactic modelling permitted us an integrate approach of the didactic competence profile and also the complexity and dynamic understanding of this construct.

Quantitative and qualitative analysis of the results research step rolled was oriented in three major directions, those are:

1. The outlining of the didactic competence profile concept extents, of its complexity and dynamic and the experimental validation of the explicit model of this.
2. The efficient verification of the didactic design competence modelling and of the learning and class management through the BSCW virtual class model and WebQuest didactic design model.
3. Verifying to what extension is the development of the competences of education employment of the new information and communication technologies efficient inside the integrated context of the development of the teaching design competences and the management of learning and of the class of students.

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