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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, PSYCHOLOGIA-PAEDAGOGIA, L, 1, 2005

INTEGRATIVE STRENGTH OF THE ACTION REASONS: CONTENT AND STRUCTURAL ANALYSIS OF SELF-REPORTED BEHAVIOR OUTCOMES[*]

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ABSTRACT. Previous research (Carver & Baird, 1998) found that diverse reasons can underlie the same aspiration and that it is the reason not the aspiration itself that is more linked to individual self-actualization. In the following study I argue that *different* – more *controlling/nonintegrated* or more *self-determined/integrated reasons may underlie the same aspiration of doing well in a no-choice activity*. Moreover, I found that *the true belief* underlying a participant's cognitive activity *has* either *been derived from* or *inconsistent with* his or her *explicit* task perception *(action identification)* (Vallacher, & Wegner, 1985). Scope/action specification, integrative conceptual complexity in self-reported outcomes, and affect were found as other qualifying elements for *the integrative strength of an action reason.*

Premises of the study

The question "*What have you done?"* - meaning *how have you managed the exam task?* is usual among students leaving an exam room. I, myself, ask this question to the 4th year students, immediately after they finished the exam task. The students' written responses have latter been examined in order to establish how well they understand the task requirement and its benefits for personal learning, and for what reasons they proceed as they did in writing the exam essay. Two theoretical frameworks have guided the content analysis of students' responses: *action identification* theory (Vallacher &Wegner, 1985) and *self-determination* theory (Deci and Ryan, 1985).

Students describe very differently that what they have done within the exam they had just finished: *I've written something…; I think the solution come from the applying the concept of…; It was a real challenge, was it?* or even *What, you call this an exam?*

> *"People do what they think they are doing. Ordinarily, they prefer to think about their acts in the most encompassing way possible. But when they cannot perform an act so broadly conceptualized, they concern themselves with thinking of a detail of the act.* These three statements capture the essence of the theory of action identification (Vallacher &Wegner, 1985). Through them, it is possible to envision how people 'intend' to act, how they are 'motivated',…how they 'regulate' their actions,…how they 'learn'…"
>
> (Wegner & Vallacher, 1986, p. 550).

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People engage in various behaviors for different reasons. Some reasons are more self-determining or autonomous, while other are more controlling. The self-determining, autonomous reasons are positively related to self-actualizations and more compatible with psychological well-being.

> Self-determination theory (Deci and Ryan, 1985) posits that (a) people are inherently motivated to internalize the regulation of uninteresting though important activities; (b) there are two different processes through which such internalization can occur, resulting in qualitatively different styles of self-regulation; […] The two types of internalizations are *introjection*, which entails taking in a value or regulatory process but not accepting it as one's own, and *integration* through which the regulation is assimilated with one's core sense of self. Introjection results in internally controlling regulation, whereas integration results in self-determination.
>
> (Deci, Eghrari, Patrick, and Leone, 1994, p. 119).

As C. S. Carver and E. Baird explain (citing Deci and Ryan, 1985; Ryan and Connell, 1989) self determination theory addresses differences among four classes of motivation, which differ in the extent to which they are autonomous versus controlled. The most controlled behavior in a task or situation is that guided by *external* forces, placed outside the self. These external pressures are eventually internalized giving rise to *introjected* self regulation. Though internal, these forces also consist of pressures, such as guilt or anxiety, or a desire to please others. As Carver and Baird (op. cit.) noted, "controlling aspect of self-regulation has been moved inside the person" (p. 289). There are, also, behaviors guided by *indentified* motives. Presumably derived from the introjected values, "the identified motives have become assimilated into the structure of the self"(p. 289). Persons engage in such behaviors because they genuinely believe these behaviors are valuable. Such behaviors are relatively autonomous or self-determined. Some behaviors are guided by *intrinsic* motives. "Such activities are of interest in their own right. These behaviors, pursued for the pleasure they naturally bring, are the most autonomous of all (Carver and Baird, op cit., p. 289).

Thus, according to self-determination theory various classes of motivations differ in the extent they are autonomous versus controlled. "When autonomous, individuals' actions are self-organized with respect to their inner or outer circumstances, instead of being merely cued up or prompted by nonintegrated processes or exogenous pressures" (Deci and Ryan, 2000, p. 254).

Objective and hypothesis

Ojective

This research addresses the personal elements that may capture the differences between actions that are only *cued up* or *prompted* by several *nonintegrated processes* and *exogenous pressures*, on the one part, and more *self-organized* or *integrated* with respect to these conditions, on the other.

Hypothesis

I propose the idea that a high level of abstraction in action identity is *only* indicative for high level in self-actualization *when* action identity represents equally high levels of self-integrated regulations (manifested in high goal/action specification, high conceptual-integrative complexity of self-in-situation perception and associated positive affect, that I conceived as measures of integrative strength of action reasons).

Method

Subjects and procedure

Participants were 79 students of the total of 140 in the last year of undergraduate studies in psychology. After completing the exam task - an essay – they have accepted to write down their thoughts about exam as response to the question: "What do you think you've done at this exam?" This question was introduced in such a way to create the condition for the participants to process unreservedly their thoughts about the exam situation and to endorse the idea that such post exam reflection is benefic for them: "I know you are probably quite tired and willing to take a break, but maybe one's post-exam reflections may help one…" The time for the response was between 7 and 10 minutes.

The Coding Schema for Action Reason

In assessing participants' reasons in their self reported outcomes I followed both a descendent and ascendant coding schema. Thus, I used pre-established notions such as, more controlling and more self-organized reasons, high and low abstract action identification level, action/scope hierarchy, deliberative vs. implement mind-sets, and conceptual-integrative complexity of a verbal discourse. I used also my empirical observation that there are some differences between participants concerning internal consistency in their task perceptions, a participant's explicit action identity might be consistent or inconsistent with participant's true belief underlying his or her treatment of the task. The emergent coding schema so constituted has the follow elements:

Variables

1. **Level of action identification** (3 modalities: *low level identity, inconsistent high level identity***,** and *consistent high level identity*)

1. 1. ***Level of explicit action identification*:** As a response to the question "What do you think you've done at this exam?" each participant revealed a more abstract or more concrete action identification level in his or her verbal discourse. While some participants began their report with a high abstract action identification - such as "The topic implies *application of the learned knowledge*…"- others entered directly into a more concrete, implementing description of the way they proceeded in composing the essay. The participant B. A.'S task description may be an example for the second case: *I conceived the entire paper as a face-to-face discourse… As I had new ideas I analyzed them and I offered feedback to myself…Before I writing an idea I doubting about it or I sustained it…* (because of this procedural orientation the discourse vas coded as *low action identity).*

1. 2. ***The true belief underlying the response to action requirement:*** There were some participants who derived personal sense from their first general formulation of task requirement (Ex. Participant OR: *"The topic was an opportunity for a personal reflection upon processes of organizational learning…I was surprised to discover that organizations are alike human personality structures, that organizational memory and learning are similar to those of individual…"* Participant B. M.: *Using an instance of my experience I realized that, in fact, I was and I am a member of an organization*…[As moving down to an example, a new action identity emerges: acting as a member] (This response modality was qualified as *internal consistent high action identity*). There were others participants who associate an incongruent belief about the impossibility to actually give a very good response to the task requirement, that they have previously formulated in very favorable or desirable terms. It is a sort of lack of intention (see Perugini & Bogozzi, in press.) to act according to a just established action identity (modality qualified as *internal inconsistent high action identity*).

Distribution of the participants' responses on the three modalities was: 8 - low level identity, 43 – inconsistent high level identity and 23 consistent high level identity.

2. Scope/action specification (2 modalities: *the lack of sequence or temporal perspective, versus presence of sequence or temporal perspective).*

Example of the presence of sequence: Participant O. M.: "In the solving of the exam task *I applied a lot of knowledge that I have assimilated from particular familiar situations* [general scope]. The requirement to construe organizational situations helped me *to represent* better the dynamic of organizational processes sustained by need for control and need for understanding [first particular scope and a particular aspect of task requirement]. The task afforded me *to understand* easier the link between control, understanding and conformity [second particular scope and the participant's own solution to the task requirement]. When I read for this exam *I have tried to imagine concrete situations* underlain by the concepts and principles presented in the course [a prior to exam particular scope of exercising]. Task solving implied *the application of knowledge* that has been achieved not only within the course of organizational psychology but within other course too [general scope to which participant goes back]."

Example of other, temporal perspective: Participant A. A. *"…the preparation for the exam and the exam itself* were not represented an unpleasant activity but facilitated my understanding or scientific interpretation of a phenomena from real life. *I have organized my paper presenting firstly the theoretical bases* needed for the problem approach and *secondly I tried to illustrate them with examples.* The course and exam have offered to me a scientific lens for reading reality*"*.

Distribution of the participants' responses was: 51 - lack of sequence and temporal perspective, and 28 - presence of sequence and temporal perspective.

3. Conceptual-integrative complexity in self reported outcomes. Unilateral - external or self-centered **- versus integrative perspective in self-reported outcomes:** concentrating exclusively on the external requirements or, on the contrary, on personal performance or affective states versus combining the two perspectives in an integrated self-in-situation perception. (3 modalities: *unilateral perspective, several but nonintegrated perspectives, and integrated self-in-situation perspective*).

Example of several but non-integrated perspectives: Participant A. Ad.: [focusing on external requirement and evaluation]: "*The* [required] *title of paper and key words* [offered by the evaluator] *were of big help* and the [required] *using of concrete examples has helped* to the using of theoretical knowledge. [Changing the perspective and focusing on self]: Unfortunately *it wasn't very clear for me on what exactly the emphasis might be put on* – on theoretical or implicit knowledge. *I tried to combine them.* [Changing on external perspective] *The task was of medium difficulty*, per ensemble, those without imagination being disadvantaged, but. . . *The task evaluation will be relatively easy to be made*, once the criteria established, yet in the same time [the task] *leaves room for subjectivism in scoring* as important aspects as the knowledge, such as, imagination and creativity. "

Example for the integrated self-in situation perspective: participant P. O.: *I appreciate that we need not to reproduce knowledge. The exam requirement, examples required, put in movement the mechanism of actualizing theoretical information, but having their practical applications in mind. Thus…I appealed both to knowledge achieved in the second year of studies and my own life experience …My attitude in this exam…become quite relaxed, it even made me pleasure to solve the requirements…Certainly it* [the relaxed attitude] *is based on my sense or illusion of control…"*

Distribution of the participants responses between the three modalities was: 48 – unilateral perspective, 10 - several, nonintegrated perspective and 21 – integrated perspective.

4. Affect: favorable versus unfavorable appraisals of task requirements and performance-related affects- (**4 modalities**: *detachment / amotivation, negative appraisal and insecurity. positive appraisal with ambiguity and doubt, and intrinsic pleasure*)

Examples of intrinsic pleasure: Participant B. O.: …"[the exam] *experience was pleasant. It has solicited me, cognitively, and it was a challenge for my capacity to transfer and apply my knowledge*". Participant C. E.: "*my* [capacity for] *categorical flexibility was put at work"*.

Distribution of participant responses on the four modalities was: 17 – detachment /amotivation, 22 negative appraisal and insecurity, 20 - positive appraisal with ambiguity and doubt, and 20 –positive appraisal, intrinsic pleasure.

Table 1.

Level of action identification * Scope/action specification Crosstabulation

			Scope/action specification		
			lack of sequence and temporal perspective	**sequence and temporal perspective**	*Total*
Level of action identification	**low level identity**	*Count*	2	6	8
		% within Level of action identification	***25.0%***	***75.0%***	***100.0%***
		% within Scope/action specification	***3.9%***	***21.4%***	***10.1%***
		% of Total	***2.5%***	***7.6%***	***10.1%***
	inconsistent high level identity	*Count*	***45***	***3***	***48***
		% within Level of action identification	***93.8%***	***6.3%***	***100.0%***
		% within Scope/action specification	***88.2%***	***10.7%***	***60.8%***
		% of Total	***57.0%***	***3.8%***	***60.8%***
	inconsistent high level identity	*Count*	***4***	***19***	***23***
		% within Level of action identification	***17.4%***	***82.6%***	***100.0%***
		% within Scope/action specification	***7.8%***	***67.9%***	***29.1%***
		% of Total	***5.1%***	***24.1%***	***29.1%***
Total		*Count*	***51***	***28***	***79***
		% within Level of action identification	***64.6%***	***35.4%***	***100.0%***
		Scope/action specification	***100.0%***	***100.0%***	***100.0%***
		% of Total	***64.6%***	***35.4%***	***100.0%***

Table 2.

Level of action identification * Conceptual-integrative complexity in performance appraisal Crosstabulation

			Conceptual-integrative complexity in performance appraisal			
			unilateral perspective	**several unintegrated perspectives**	**Integrated perspective**	*Total*
Level of action identifi-cation	**low level identity**	*Count*	***8***			***8***
		% within Level of action identification	***100.0%***			***100.0%***
		% within Conceptual-integrative complexity in performance appraisal	***16.7%***			***10.1%***
		% of Total	***10.1%***			***10.1%***
	inconsistent high level identity	*Count*	***40***	***7***	***1***	**48**
		% within Level of action identification	***83.3%***	***14.6%***	***2.1%***	***100.0%***
		% within Conceptual-integrative complexity in performance appraisal	***83.3%***	***70.0%***	***4.8%***	***60.8%***
		% of Total	***50.6%***	***8.9%***	***1.3%***	***60.8%***
	consistent high level identity	*Count*		**3**	***20***	***23***
		% within Level of action identification		***13.0%***	***87.0%***	***100.0%***
		% within Conceptual-integrative complexity in performance appraisal		***30.0%***	***95.2%***	***29.1%***
		% of Total		***3.8%***	***25.3%***	***29.1%***
Total		*Count*	***48***	***10***	***21***	***79***
		% within Level of action identification	***60.8%***	***12.7%***	***26.6%***	***100.0%***
		% within Conceptual-integrative complexity in performance appraisal	***100.0%***	***100.0%***	***100.0%***	***100.0%***
		% of Total	***60.8%***	***12.7%***	***26.6%***	***100.0%***

Table 3.

Level of action identification * Affect Crosstabulation

			Affect				
			detachement, amotivation	**negative appraisal and insecurity**	**positive appraisal with ambiguity and doubt**	**positive appraisal, intrinsic pleasure**	*Total*
Level of action identification	**low level identity**	*Count*	***3***	***3***	***2***		***8***
		% within Level of action identification	***37.5%***	***37.5%***	***25.0%***		***100.0%***
		% within Affect	***17.6%***	***13.6%***	***10.0%***		***10.1%***
		% of Total	***3.8%***	***3.8%***	***2.5%***		***10.1%***
	inconsistent high level identity	*Count*	***14***	***19***	***14***	***1***	***48***
		% within Level of action identification	***29.2%***	***39.6%***	***29.2%***	***2.1%***	***100.0%***
		% within Affect	***82.4%***	***86.4%***	***70.0%***	***5.0%***	***60.8%***
		% of Total	***17.7%***	***24.1%***	***17.7%***	***1.3%***	***60.8%***
	consistent high level identity	*Count*			***4***	***19***	***23***
		% within Level of action identification			***17.4%***	***82.6%***	***100.0%***
		% within Affect			***20.0%***	***95.0%***	***29.1%***
		% of Total			***5.1%***	***24.1%***	***29.1%***
Total		*Count*	***17***	***22***	***20***	***20***	***79***
		% within Level of action identification	***21.5%***	***27.8%***	***25.3%***	***25.3%***	***100.0%***
		% within Affect	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***
		% of Total	***21.5%***	***27.8%***	***25.3%***	***25.3%***	***100.0%***

Testing the Hypothesis

I tested the expected relations between the level of *action identity* and each of the following variables: *scope/action specification*, conceptual-integrative complexity in self reported outcomes, and *affect* in, respectively, 3 x 2, 3 x 3 and 3 x 4 design.

Results

I found that *only* a high level of abstraction in action identity that is internally consistent was associated to high levels in goal/action specification (*Table 1)*, high levels in conceptual-integrative appraisal of self-in-situation *Table 2)* and positive resultant affects *(table 3), while* an equally high level of abstraction in action identity that is internally inconsistent as well as low level of abstraction in action identity was associated to low levels in goal/action specification, unilateral or nonintegrated perspectives either on task requirements or on personal task-approach and negative resultant affects. (Chi-Square=45,711, df = 2, p<. 01; Lambda=. 593 p<. 01 for scope/action specification; Chi-Square=65,686 df = 4, p<. 01,, Lambda=. 629 p<. 01 for conceptual-integrative complexity; Chi-Square=59,182, df = 6, p<. 01, Lambda=. 420 p<. 01 for affect).

Discussion and conclusion

The effects of the aspiration of doing well in a no-choice activity, like writing an academic exam essay, may be a function of why the goal is being pursued - that is, of the regulatory process, rather than the aspiration content itself. The aspiration may be pursued for more non-integrated reasons – i. e. controlling (external or introjected) pressures or, differently, for more integrated reasons –i. e. identified values or intrinsic pleasure, as reflected in the *implicit measures of the level of integration of action reasons* that have been used in this study. Internal consistency of the action identity captured the true belief underlying one's behavior, the goal/action specification reflected the link and movement between a more general identity and its particular parts, conceptual-integrative complexity indicated the flexibility in using different perspectives in performance appraisal; together with positive vs. negative resultant affects, they may constitute an index of integrative strength of the action reasons.

In the margin of these data I can speculate that the level of "*why*" is the level of cognitive integration without much "rest" or dissonant content - i. e. *the point at which the degree of incongruity is under the level of irritation that determines the individual to do something about it* (see Pittman, 1998).

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, PSYCHOLOGIA-PAEDAGOGIA, L, 1, 2005

MULTI-FACTORIAL ETIOLOGY OF PUBER‘ S VIOLENT BEHAVIOR

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ABSTRACT. The violent behavior is examined in terms of both state of the art knowledge and state of practices in the field. The article presents the types of violence: domestic, institutional, media, community and school., the multi-factorial etiology of violent behavior at puberty and the risk and protective factors. It is emphasized the role of proactive screening in violent behavior prevention.

Human being is the most complex and amazing of all. He is able to create, feed him, protect, educate and become rich. But he can also degrade, humiliate, enslave, he can hate, destroy and kill. A man can tenderly hold a newborn child in his arms, but after a few moments he is capable of hitting the child's mother. Violence has infiltrated in our society. Both in the past and present, violence has been part of people's life, in spite of social and cultural evolution. Besides the fact the society has not be able to eradicate violence, it has been ascertained a terrible variety of its types and degrees within certain cultures and periods. In some cultures, casual street violence is replaced with an oprresive institutionalized violence, but in others violence among families is rare while domestic violence which has as victims wives and children, is widely spread.

For example, in USA, in spite of remarkable technological, social and educational progress violence is still present in American society. People are exposed to violent images all the time. They are both fascinated and disgusted by violence. It doesn't matter if you are journalist, producer or student, in USA you are obliged to consider, comment and analyze violence. There are organized high level conferences, attended congresses, elaborated special documentary films in which there are expressed opinions, shared tasks, created programs, guns are prohibited, Hollywood is blamed, parents are considered guilty, and, never the last public continues to be shocked and confused when it has to face the horrible acts which take place in schools, at home or on the street.

Although we keep on saying that we don't have to worry yet, this is happening only in America, the fact that the violence cases are mediated TV channels in our country and the audience is quite large should stimulate us to elaborate statistics concerning types of violence and the most affected social categories and to focus our academic research on the aspects of the phenomena in our society. We should, specifically study the psychological mechanisms which support violence in a society passing through a long transition period and elaborate prevention programs before it becomes a problem which could no longer be controlled.

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It is necessary to try to understand the complexity and variety of the forms of violence which surrounds us: spontaneous, institutionalized, behavioral, ideological and/ or verbal violence. It is difficult to understand a teenager who kills with cold blood his classmates, a mother who kills a child or a husband who kills his wife and children and then kills himself. How could we explain mass bombardments against innocent people in the name of God ? How could we understand physical aggression, torture, slavery and genocide which are institutionalized and practiced systematically ?

Violence and its associated factors are complex and multidimensional. In this study I am going to focus on the multi-factorial etiology of the violent behavior and specifically on the role of the proactive screening in violent behavior prevention at puberty.

1. Violence in childhood: The purpose of the issue

1.1. Domestic violence

Childhood is o period full of danger and risks. During the first years of child' life and during the young and middle childhood, the survival of the child depends on his parents, on the family nucleus. There are certain settings which belong to the family: the child is fed, dressed, sheltered, taking care of and educated. Unfortunately, there are several homes in which the child is manipulated, he is subject of coercive and degrading measures, he is inoculated with a series of destructive beliefs and exposed to violence. In America, the home is most affected place by violence (Straus, 1974). In 1995 the FBI reported that 27 % of the violent acts involve family or domestic violence, 48 % had to deal with violence at home (National Incident-Based Reporting Systems; Uniform Crime Reporting Program, 1999). Children are often witness or victims of these violent acts.

Statistics of violent acts in USA underestimate the prevalence of domestic violence. Less than 5 % of domestic violence cases are registered in criminal reports. Abuses which take place inside families, as well as verbal and emotional violence usually have children as victims (see Koop and al., 1992; Horowitz and al., 1995; Carnegie Council on Adolescent Development, 1995). Violence can manifest in various forms. The child may witness the aggression of his mother by the father or concubine. The child may be a direct victim of physical or emotional violence from his father, mother and brothers. Straus and Gelles (1996) estimate that over 29 million of children commit an act of violence against their brothers every year. The child can become the victim of a male adult if he tries to interfere and protect his mother of brothers. All these cause physical violence, but this is an added element which contaminate familial environment: humiliation, coercion, degradation, threatens of desertion or physical aggression.

1.2. Mediated violence

In families in which physical and emotional violence is not present, still children are exposed to violent images; as children spend in average more than 3 hours/day in front of the TV screen. Television, video games, music and movies

determine an increase of violence (Donnerstein & al., 1995;). Houston and colleagues estimated that until he is 18, a child sees on the average 200 000 acts of violence at TV (Houston and others, 1992). Although, in USA community services and the community itself offers pertinent emotional, behavioral, cognitive and social supports, the mediated violence provide aggression and antisocial behavior (Lewis & al., 1989; Myers & al., 1995; Mones, 1991; Hickey, 1991; Loeber & al, 1993; O’ Keefe, 1995), promoting the belief that the world is more dangerous than really is (Gerbner, 1992;) and immunizing the child towards a future violence (Comstock şi Paik, 1991;). For children which are exposed to violence in family (domestic violence), images which promote force and violence constitute major sources of “cultural” values, which consolidate family patterns.

1.3. Community and scholar violence

For the last 10 years it has been recorded a faster increase of juvenile violence. Between 1986-1996 was recorded a 60 % increase of juvenile violence, children being responsible for 19 % of violent crimes (Snyder, 1997). Many cases are act of violence committed by young people against young people. A series of studies indicate that more than half of interviewed young people had witnessed to a form of violence at the time Taylor & al., 1992; Richters & Martinez, 1993; Horowitz & al. 1995;). The most common forms of violence in school are: intimidation, threatening, low level aggression. For thousands of children school is not a very safe environment. It has been estimated that over 250000 students, in USA are the victims of aggression in school during a month (Garrity & al., 1994). For much too many students, school is a fearful place, with a real threatening potential.

II. Risk factors of violent behavior

A kind of approach of development’ etiology violent behavior consists of analyzing the risk factors. There is a great number of studies concerning the identification of risk factors and of those which prevent the development of violent behavior in puberty. The risk factors are those which increase the probability of a violent behavior manifestation (Loeber, 1994: 4), while the protective factors operate in the context of risk factors, and they attenuate their action, supporting social development, high life quality‘ standards and ameliorating antisocial behavior (Bond & al, 2000:3).

The risk factors which create predisposition for a violent behavior can be grouped in two categories:

- Cultural variables which influence any individual;
- Individual variables which consequently influence the child, increasing his vulnerability;

The cultural factors categories includes: family, school, neighbourhood, community and last nation. Cultural factors refer to influences such as: the changing of social norms, the diminution of politeness, the increase of divorce rate; social mobility,

violence and the increase of the acceptance of violent behavior. Few decades ago a number sociologists observed an increase of "self-absorption", individual progress and immediate gratification, increase which corresponds to a decrease of the need of group and community as a value as well of the meaning of independence and mutuality. It seems to be the "Gain As Much As You Can", kind of attitude which has a social impact on behavior. Neighbourhood and community as risk factors include: access to fire guns and drugs, as well as for community laws and norms convenient to their use, high transition and mobility, low attachment and cohesion, doubled by lack of organization in community and, finally, a major economic and social deprivation.

2.1. Scholar risk factors include: early antisocial behavior against peers, scholar failure in elementary school, lack of interest for school.

2.2. Family risk factors include: family background reffering to a risk behavior, problems of family management, family conflicts, negative parental attitude and lack of involvement children ' s life.

2.3. Individual risk factors include: social alienation, rebellion, friends with behavior problems, positive attitude towards behavior disorders and early manifestation of this kind of behavior (Walker and al 1996).

Next to these, there is a series of risk factors which refer to family dysfunction divorce, alcoholism, concubinage, mono-parental families, drugs, parental incompetence, neglect, physical and emotional abuse, negative attitude towards school, parental patterns towards physical and verbal aggression (Hawkins şi Catalano, 1992;).

2.4. Actual Policies: variables presented above are doubled by actual policies which promote consume, money and profit. All these lead to antisocial attitude, self-interest, coercive behavioral patterns.

Oregon Social Learning Center & DYS Lane County Department of Youth Services had elaborated a profile of those children which present a high risk to develop a violent behavior in puberty and adolescence. They had considered the following factors:

- Arrested parents;
- Lack of implications from the child protection services;
- Changing incidence in family structure (decease, divorce, trauma, family change);
- Lack of interference from the Special Educational Services;
- Early or/and severe antisocial behavior antecedents;

Three or more of these factors increase in time the risk of delinquency and others problems. The period of time and the risk towards the child is exposed favour the appearance of aggression, self-centred attitude and dysfunctional behavioral style.

Risk and protective factors associated to the development antisocial and criminal behavior manifest in various domains. We can include here: child 's characteristics, family and its experience concerning daily events which cause stress, school environment, as well as community and culture factors (Homel & al. 1999);

Risk and protective factors which are associated to the development of antisocial and violent behavior were synthesized in table 1 & 2.

The researchers indicate that a single risk factors cannot explain the development of violent behavior. But, the more an individual is exposed to more risk factors, the higher is the probability for that individual to manifest an antisocial or criminal behavior (Bond & al., 2000; Loeber & Farrington, 2000). Similarly, a great number of protective factors of which a person can benefit, increase the probability of remediating of violent behavior, in spite of the presence of risk factors (Howard & Johnson, 2000). Therefore, the probability of a child to begin manifesting violent behavior is conditioned by the balance risk factors-protective factors which influenced him during his life (Loeber & Farrington 2000).

Table 1 Risk factors associated with violent behaviour in puberty: Adaptation after Homel, Cashmore, Gilmore, Goodnow, Hayes, Lawrence, Leech, O'Connor, Vinson, Najman, & Western, 1999;[1]

Child factors	Family factors	School context	Life events	Community and cultural factors
Prematurity	1.Parental characteristics:	School failure	Divorce and family break-up	Socio-economic disadvantaged
Low birth rate	-teenage mothers; -single parents; -psychiatric disorders especially depression; -substance abuse; -antisocial models; -criminality;	Normative beliefs about aggression	Death of a family member	Population density and housing conditions
Prenatale brain damage	2. Family environment:	Deviant peer group	War or natural disaster	Urban area
Birth injury	-family violence and disharmony; -marital discored; -disorganised; -negative interaction/social isolation; -large family size; -father absence; -long term parental unemployment;	Bullying		Neighbourhood violence and crime

[1] Source: Homel, Cashmore, Gilmore, Goodnow, Hayes, Lawrence, Leech, O'Connor, Vinson, Najman, & Western, 1999, p136;

Low inteligence	3. Parenting style:	Peer rejection		Media portrayal of violence
Difficult temperament	-poor supervision and monitoring child; -discipline style (harsh or inconsistent); -rejection of child; -abuse; -lack of warmth and affection; -low involvement in child ‘ activities; -neglect;	Poor attachment to school		Cultural norms concerning violence as acceptable response to frustation;
Chronic illness				Lack of support services
Insecure attachment		Inadequate behaviour management;		Social or cultural discrimination;
Poor problem solving	-			
Beliefs about aggression				
Attributions				
Poor social skills				
Low self-esteem				
Lack of emphaty				
Hyperactivity / disruptive behaviour				

Table 2 The protective factors associated with violent behaviour in puberty: Adaptation after Homel, Cashmore, Gilmore, Goodnow, Hayes, Lawrence, Leech, O’Connor, Vinson, Najman, & Western, 1999;[2]

Child factors	Family factors	School context	Life events	Community and cultural factors
Social competence	Supportive caring parents	Positive school climate	Meeting significant persons	Access to support services

[2] Sursa: Homel, Cashmore, Gilmore, Goodnow, Hayes, Lawrence, Leech, O’Connor, Vinson, Najman, & Western, 1999, p.138

Social skills	Family harmony	Pro social peer group	Moving to new area	Community networking
Above average inteligance	More than two years between siblings	Responsibility and required helpfulness	Opportunities at critical turning points or major life transitions	Attachment to the community
Attachment to family	Responsibility for chores and required helpfulness	Sense of belonging/ bonding		Participation in different community group
Empathy	Responsabilitate pentru treburile casnice	Opportunities for school success at school and recognition of achievement		Community/cultural norms against violence
Problem solving	Secure and stable family	School norms on violence		A strong cultural identity and ethnic pride
Optimism	Supportive relationships with other adults			
School achievement	Small family size			
Easy temperament	Strong family norms and morality			
Internal locus of control				
Moral beliefs				
Self related cognitions				
Good coping style				

Moffit (1994) identified a category of children whom he called “early starters”. This category includes children which manifest an antisocial behavior as defiance towards adults. These children treat cruel peers (they banter and provoke the others, they commit acts of verbal and physical aggression of average intensity and frequence). When they get to school this children this children have this kind of behavioral patterns which primarily stabilized due to early exposure to the risk factors presented above. These children‘ problems tend to be worsen because of their negative behavior, being rejected by both teachers and peers who consider aggression and humiliation of others unacceptable. Patterson & al. (1992) and Reid

(1993) emphasize that rejection from both teachers and peers causes ways of development which lead to school failure and delinquency. It also determines dropping out school and increase of developing a delinquent or criminal behavior. 8 % of the aggressions which take place in daylight and 90 % of the robberies in Los Angeles are committed by teenagers who are absents or suspended from school (Crowe, 1995; Bostic, 1994).

The child must to have a series of interpersonal skills and elementary behavioural skills, in order to achieve in school and comply with teachers and classmates ' demands. They have to be capable of afilliation, adjustment, managing their anger, cooperation and tolerance, listening and communicating with others, forgiving and asking for help. Walker ' s research (1996, 1997, 1999) indicate that most of the children who are susceptible of violent behaviour, don't have at least minimal skills essential for school achievement. Since they were rejected by their teachers and classmates, these student gather in destructive and deviant gangs which will end up breaking the law (Dodge, 1995; Dodge & al., 1992; Dishion & al., 1994).

2.5. The pathways which determine violence

Children exposed to risk factors practice a series of ways which include behavioural manifestations and reactions such as: adult defiance, lack of interest for school, tensional relationships with classmates (Walker & Sprague, 1999;). These determine within a short period of time: truancy, rejection from teachers and classmates, poor school results, early drugs and alcohol' use. These factors may lead to school failure or to dropping out of school which will cause in the end negative and destructive consequences within a long period of time, such as: delinquency, adult criminality and violence. A great number of children are nowadays exposed to these risk factors and than follow an unfortunate pathway. It is known that a child can be recovered, but this is possible only if the intervention is early. Next, will present two ways which had the child towards an antisocial behavior:

A) Exposure to the following risk factors inside family, close environment, society: *poverty, physical, emotional, sexual abuse, neglect, discipline style (harsh or inconsistent), aggression modelling, mediated violence, negative attitude towards school, dysfunctional family, decease, parental criminality.*
B) Exposure to a series of influences which facilitate antisocial behaviour: *adult defiance, low educational level, coercive interactive skills, aggression committed by teachers, classmates, lack of problem solving skills.*

Passing through these ways and the combination of constitutive factors determine two categories of results accordingly to assigned period of time:

Short term results: truancy, rejection from teachers and classmates, poor school results, discipline infringement, drug use and alcoholism, detention at early age (less than 12 years old).

Long term results: school failure, dropping out of school, delinquency, alcohol and drugs addiction, affiliation to gangs, adult criminality, long dependency on social-assistance system, high mortality rate.

Research indicate the fact that society registered much more damage through a reactive attitude, than it would have if having a proactive one (Kulongoski, 1996;). School must adopt unique position and that would be to allow the access of these children and, at the time to ensure the coordonation of resources, services and specialists in order to identify and to treat them. But school cannot realise this, unless they are provided with an adequate financial support, as well as social and community support, without teachers involvement and competent research. This goal could be achieved only if community understands that its purposes are identical to those of school and that both school and community are responsible not only for developing academically skills, but also for developing an adequate interpersonal behaviour, communicative skills, social values, as well as for developing a community conscience, reciprocity and cooperation.

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REPRESENTATION OF NARRATIVE TEXTS: CONSTRUCTING INFERENCES DURING TEXT COMPREHENSION

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ABSTRACT. While understanding a text readers try to elaborate a mental representation of what they are reading. In this process they construct their own models of meaning for a text. The goal of this study is to try to describe some models of text comprehension. We analyzed and explore the processes that reflect the activities of the text users in comprehension: the mechanisms of inferences generation. Readers generate inferences that fill gaps in the main messages. They generate inferences that explain why the writer bothers to mention something that otherwise would be insignificant.

There are multiple codes for mental representations. Language is only one such code, others being imagery, direct procedural representations, episodic representations, emotion, and so on. Theoretically, these representations can be embedded within one another or recoded to another form of representation to account for the complexity of thought. Even imagery and emotion are to be represented propositionally, not because they are by nature propositional, but for practical reasons.

For example, when one reads a story, individual words and sentences would be converted mentally into propositions and connected with each other through overlapping information or reference (e.g., pronouns) into a text base. These propositions would then be combined into macropropositions that defined the theme or gist of the story or some portion of it (e.g., goal, attempt, outcome). The macrorules that governed the combination of micropropositions into these macropropositional structures would emanate from a schema of some kind (e.g., story grammar).

Models of comprehension

There is wide agreement that text comprehension results in multiple levels of representation or codes. The levels include the representation of surface form; of the idea network, or "textbase"; and of the situations to which the text refers (van Dijk & Kintsch, 1983).

A. The first code was *verbatim text information or surface code*. The surface code is a record of the exact wording and syntax of the sentences. This surface code is preserved in memory for only a few seconds when technical **text** is read. Some information is remembered exactly or nearly exactly as given (e.g., the names of characters or places in a story).

B. The second code was *the propositional text base*. Just what is a proposition, anyway? Propositions are not seen as actual language; they have no form and are assumed to be the abstract, mental, meaning base of language. They cannot be experienced directly, have no objective reality, and are associated with no sensory modality (a description that also applies to schemata). A proposition is assumed to be composed of a predicate plus its arguments in the manner of case grammar. The predicate is typically a verb and the arguments are its agents (i.e., subject, object, and so on). The textbase is preserved in memory for several minutes or longer.

To illustrate a proposition, let us use an example. The sentences „John gave Marcel a map" and "A map was given to Marcel by John" would presumably share a common, underlying, proposition: (gave, was given) [agent: John, object: book, goal: Marcel]. The notation (gave, was given) denotes alternate surface structure forms; different syntactic arrangements can also be applied. Concepts like (gave, was given) are in turn defined by other associated concepts in the knowledge network such as the superordinate categories gift or transaction, the property transfer possession, and so on. These concepts are also in propositional form. Keep in mind that what are being presented on this page are not propositions but their surface structure notation, much as we diagram sentences in other ways. What is missing so far is an explanation of how we go from actual printed language or its linguistic notation to its abstracted, amodal, propositional, mental form.

The theory's answer to this question is that we have a schema for the proposition, a mental program composed of a predicate slot and argument slots. That is, the theory assumes a general, abstract schema for forming atomic propositions that is instantiated by reading each unit of a text. Furthermore, the theory proposes that there are script-propositions for the construction of emergent scripts, propositional schemata for generating propositional schemata that are presumably instantiated by instantiating the atomic proposition-schema. The layers of abstraction here are troubling.

These assumptions also seem to produce a contradiction in the theory. Schemata, in the form of prior knowledge structures such as story grammars or scripts, are rejected, but a propositional schema is accepted as the unit of thought and as a device for forming emergent scripts. The theory argues that prior knowledge structures, like scripts, are inflexible and insensitive to context while a predicate-argument schema is not limiting and can be constructed online. But why is a schema needed at the most basic level? Why not just a set of activated associations constrained by context at this level as well?

C. A third code was added and called the *situation model*. The situation model was not seen as part of the representation of the text proper but a mental representation constructed by each reader about the situation in the text (e.g., persons, actions, events). The form of the situation model was not specified, but Perrig & Kintsch (1985) later proposed that the situation model could take the form of either a well-integrated text base or mental imagery. The situation *model* would contain causal chains of events that unfold as the key unlocks the door, a visual spatial image of the parts of the lock, and the goals of the person who uses the lock.

The construction of an adequate situation *model* requires a sufficient amount of relevant world knowledge, such as general knowledge about locks and mechanical equipment. Deep comprehension consists of the construction of this referential situation *model*, whereas shallow comprehension is limited to the surface code and textbase. The situation *model* is retained in memory much longer than the textbase and the surface code, assuming that the comprehender has adequate world knowledge to build a situation *model*.(Graesser, et al., 2002).

A major revision of the theory soon followed that dealt more deeply with prior knowledge use (Kintsch, 1988). The theory was modified into a two-stage, ***construction-integration model (CI)***.

The verbatim code, propositional code, and situation model code were retained, but the notion of schemata or any other stable prior knowledge structures in memory was eliminated. Instead, a loose associative network of prior knowledge was assumed in which there were stronger and weaker positive and negative connections between a vast array of concepts (i.e., propositions in memory). As a word or phrase is visually processed in a text, its many associates are activated in a spreading fan. This is the ***construction stage***. This spread is very rapidly limited by the context to one or more most likely candidates. More and deeper context checks occur as the reader moves ahead until contextual constraints are satisfied and a stable interpretation emerges in the form of a text base and a situation model. This is the ***integration stage***.

The CI theory is not an interactive one; it is initially bottom-up without priming, prediction, or any inferential top-down effects from prior knowledge. Context effects appear later to constrain the spread of alternative meanings. For example, in the unfinished sentence, “Call me...”, the phrase, call me, could take a variety of meanings, such as a telephone call or reference by name or descriptor. All such associations in the reader's experience would be activated bottom-up without discrimination but according to their associative strengths in memory. Further context would rapidly strengthen the more appropriate associations and inhibit the less appropriate ones, as in “Call me tomorrow” or “Call me Michael” or “Call me irresponsible”. Two shades of meaning co-occur in the old gag, Call me anything but late for dinner. As a coherent propositional text base emerges through further reading, a situation model could also be generated by the reader. These modifications to the theory offered several advantages including greater sensitivity to ambiguity and ever-changing contexts than formal, schema-driven processing would allow.

Constructing conceptual meaning

Conceptual meaning is seen as constructed anew in each situation by activation in the knowledge net and the parameters imposed on that activation by contextual constraints. In a mental lexicon, one looks up the meaning of a word, but in a knowledge network there is nothing to look up, so there is no such thing as lexical access. The conceptual meaning of a word is not fixed but probable; meaning is determined by the set of activated representations in the network in a given situation.

The idea that knowledge is a vast set of associations of differing strengths is not new and is shared by other cognitive theories (e.g., dual coding theory, semantic network theory). This view does not treat the meaning of words as fixed featural descriptions to be accessed but as an emergent quality the shades of which are determined by ever-changing contexts. Consistent usage in a culture allows us to define general meanings for dictionaries, but dictionaries are an external reference very different from the internal associations and references that occur from moment to moment in reading. Hence, the notions of lexicon and lexical access are misleading metaphors at best.

This view provides a perspective on meaning that is likely to find appeal among those of a constructivist persuasion. This view implies that meaning is a flexible, probabilistic, ever-changing entity that may never be the same twice. This does not imply that meaning is chaotic, that we can make a text mean whatever we want it to, or that there are not similarities between readers' readings or within the same reader upon reading a text again. There are constraints to be satisfied, and the constraints come from our own background memories as well as the conventions of our societies and cultures. We use printed language for lots of conventional reasons where close agreement on meanings is important. But how our mental networks construct a text representation can vary as we vary, and part of that variance is the depth to which we elaborate a text representation. The theory of meaning advocated here is not only constructivist but also minimalist. Clearly, readers can study a text over and over again and construct very elaborate meanings for its propositions and concepts. But most of the time, in reading or conversation, the process of meaning construction remains shallow, not just because comprehenders are inherently lazy but mostly because no more is required. A slight knowledge elaboration of a text is usually quite sufficient for whatever action is intended.

Cognition in general could be described as constraint satisfaction, particularly in situations that often involve verbal instructions such as problem solving and decision making. Following the construction-integration model, such cognitive acts would begin with the formation of an approximate but unintegrated local interpretation based on external input and the comprehender's goals and knowledge. This is followed by an integration phase that is essentially a constraint satisfaction process that rejects inappropriate local constructions in favor of those that fit together into a coherent whole. A variety of models of such processes are suggested for decision making, evaluation, motivation, emotion, and so on.

We concluded that comprehending text is a cognitive act; everything about the reading act also occurs in cognitive acts not involving reading. We perceive and discriminate, analyze patterns, make tentative interpretations, predict outcomes, resolve uncertainties, learn, appreciate, and perform other cognitive acts in material that is not in text form as well as in material that is in text form. That is, cognition in reading is a special case of general cognition involving printed language.

Inferences processing during reading

The process of creating a situation model allows readers to understand things that are not explicitly stated in the text. In some instances readers will draw **inferences** about the causal relation between events or the spatial relations between objects. For example, in comprehending the sentence, “Three turtles were sitting on a log and a fish swam beneath them,” readers routinely infer that the fish swam beneath the log (Bransford, Barclay, & Franks, 1972). Similarly, during the construction of a situation model, readers may attempt to explain causes of events as they proceed through a text (van den Broek, 1990).

For example, imagine a narrative in which the protagonist goes to the dentist one morning to get his wisdom teeth pulled. Later that night, his cheek is swollen. Drawing from a rich set of life experiences, a reader can easily infer that the character’s visit to the dentist caused his cheek to be swollen. Comprehension of a passage therefore involves much more than the processing of individual sentences; it also involves the construction of a rich representation of the situation to which the text refers (Hess, Foss, & Carroll, 1995).

Another important aspect of the construction of situation models is its dynamic nature. Elements can fluctuate in terms of their availability in the reader's working memory as the reader proceeds through the text (Myers, O’Brien, Albrecht, & Mason, 1994; van den Broek, et al. 2001). To a certain extent, fluctuations of elements depend on their function in the context of the narrative. For example, with respect to causal information readers focus their attention on the last state or event that has causes but (as yet) no consequences in the preceding text (Fletcher, Hummel, & Marsolek, 1990).

Trabasso and van den Broek (1985) suppose that during the reading of the first sentences of a story, the reader constructs a hypothetical world based on the characteristics of the hero, the place, the time, etc. This hypothetical world establishes a set of circumstances in the light of which the subsequent events will be interpreted. The possible world will change as causal changes occur, and this is why causal inferences are so important. Making these inferences is central to the "causal inferencemaker" model (Van den Broek, 1990). Inferences are made in three directions: *backward, forward and orthogonal.*

(a). **Backward inferences** correspond to inferences of connection: they link a focal event (which has just been read) to one or more previous event(s), to maintain the coherence between distinct events.The backward process is subject to two types of constraint: the criteria required for the causal relation, and the availability of the information in the memory. A reader reads an event B, and tries to connect it with a previously read event A. If A satisfies the criteria for a causal relation, the process stops; if A does not comply with these criteria, there is a break in the coherence. Two solutions are possible:

- either the reader finds in his/her memory one or more previously described events that allow him/her "to re-establish" the causal relation;

- or the reader constructs an elaboration involving an event that is not explicit in the *text*. This elaboration must be compatible with the stored information, and depends (as we have already pointed out) on the reader's knowledge of events and on causality in general.

(b) When the described events generate expectations concerning what will happen later, this is a **forward process**. These *inferences* are not required to understand the *text*, but they can facilitate (or hinder) the treatment of subsequent events. Forward inferences anticipate future events by means of cataphors, the anticipation of the future relevance.

Akerman & al. (1991) distinguish between two types of forward **inferences**: those connected solely to the anticipation of events, and those that also estimate the importance of the previous events for those that are going to occur. So, to take the example used by McKoon & Ratcliff (1992): "the actress fell from the 14 floor". The degree of sufficiency is such that it authorizes a specific expectation: "she died"; but if we read the sentence "the actress fell through the window", this suggests physical injuries but not their extent. So it is the degree of sufficiency that is going to determine the specificity of the inference produced. This model is based on the idea that a reader who reads a description of an event always tries to find a causal justification for it.

(c) ***Orthogonal inferences*** embellish the focal statement by providing details or associations.

Most important for comprehension, the combined patterns of activation may result in a connecting backward inference that integrated the focal event with representation of the prior text. If the connecting inference provides referential and causal coherence, no further inferential processes are needed for comprehension, and the reader proceeds to the next statement.

A more complicated situation arises when simple associations do not provide adequate coherence. When this happens, the lack of coherence evokes additional coherence-based processes. A search results, in which prior text is reactivated and background knowledge is accessed.

If the patterns of activation that results from the search and those that are based on the focal statement yield adequate anaphoric or causal, reinstatements or elaborative backward inferences are generated. Coherence is established, and the inferential process stops (von den Broek, 1994).

Conclusions

When we comprehend a text, understanding something, by building a mental representations of the described state of affairs, situation models. To do so, we must form connections between things that were previousely disparate: the ideeas expressed in text and relevant prior knowledge. Comprehension implies forming coherent wholes of elementary perceptual and conceptual features. That is, we construct bottom-up, crude, local interpretations that are integrated via constraint satisfaction process.

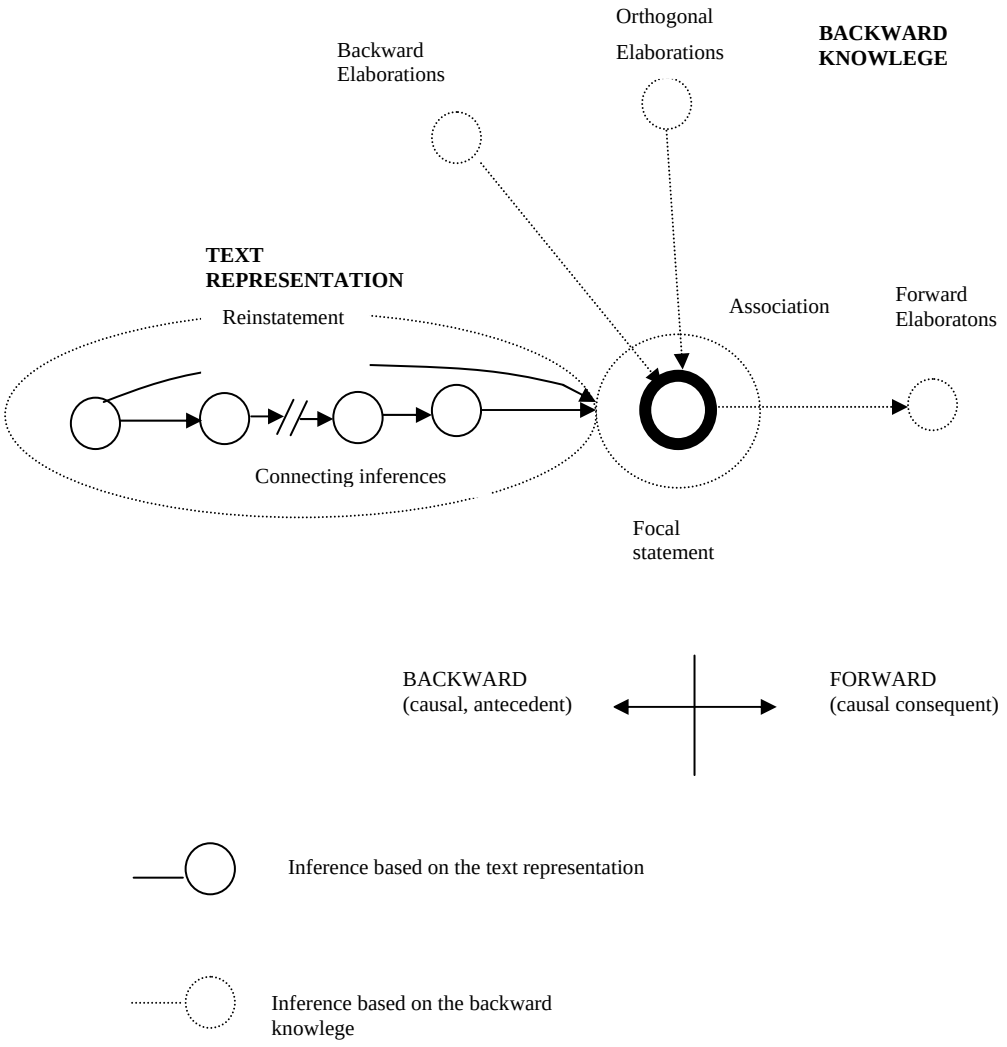

Fig. 1. A process model of inference generation during reading (apud van den Broek, 1994)

Comprehension in the construction-integration model is an activation-based process that proceeds in two phases. The construction phase produces local sentence-level propositions using simple, context-independent rules. The integration phase uses a constraint satisfaction process to integrate the possibly incoherent set of local propositions into a coherent whole organized by higher level macropropositions. Many of the CI model's predictions about anaphora resolution, word identification, and the generation of infernces have been empirically confirmed.

The process of creating a situation model allows readers to understand things that are not explicitly stated in the text. For these reason, readers will draw inferences about the relation between events described by rhe text.

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NARRATIVE COMMUNICATION: AUTHOR, READER, TEXT

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ABSTRACT. This study is an attempt to revisit the site of narrative communication by reassessing the role each of the three actors involved plays in the production and reception of a literary work. The theoretical considerations are put into practice in exemplifications based on the work of Jeanette Winterson, a contemporary British writer. Starting from Genette's presentation of language as the object of linguistic and literary study, aimed to show to what extent language and narrative influence cultural perceptions of reality, through the horizon of expectations created in the readers by a literary work's affiliation to one genre of another, I go on to discuss the impact of literary writing on the author, as well as on the reader. Drawing on Friedman's critical commentary from "Point of View in Fiction", I am trying to show that the death of each author should be pronounced on an individual basis. I am strongly in favour of judging the writer by the work, not the work by the writer. Still, this does not mean that we should condemn the author to death. In the case of Jeanette Winterson, at least, I could truthfully argue that the author is alive and well.

INTRODUCTION

This study is an attempt to revisit the site of narrative communication by reassessing the role each of the three actors involved plays in the production and reception of a literary work. The theoretical considerations are put into practice in exemplifications based on the work of Jeanette Winterson, a contemporary British writer.

Starting from Genette's presentation of language as the object of linguistic and literary study, aimed to show to what extent language and narrative influence cultural perceptions of reality, through the horizon of expectations created in the readers by a literary work's affiliation to one genre of another, I go on to discuss the impact of literary writing on the author, as well as on the reader. It is said that books are written from books, therefore it comes as no surprise that the phenomenon of intertextuality has been described in utterly expressive metaphorical ways. The omnipresent intertextuality is sometimes taken as an excuse for accepting the much-disputed Death of the Author as certitude. Drawing on Norman Friedman's critical commentary from "Point of View in Fiction", I am trying to show that the death of each author should be pronounced, if it must, on an individual basis. While I am arguing neither for a return to the romantic theories that emphasise the writer's mind and life, nor for a relapse into omniscient narration, I believe that focus on the writing itself in isolation is, more often than not, inappropriate. I am strongly in favour of judging the writer by the work, not the work by the writer. Still, this does not mean that we should condemn the author to death. In the case of Jeanette Winterson, at least, I can truthfully say that the author is alive and well.

NARRATIVE, LANGUAGE, CULTURE

In *Structuralism and Literary Criticism* Genette (1978: 65) offers a formalist definition of literariness, definition that echoes Roman Jakobson's meta-poetic function, and draws upon Roland Barthes's definition of a writer. Literariness, thus, is language production in which the attention is addressed to spectacle rather than message, the focus directed to the poetic rather than the referential function. This constitution of meaning, under a different aspect, that characterises the literary, does not degrade the meaning-function of the language. On the one hand, literary language is language used with a particular purpose, having a certain function, and therefore featuring the qualities of linguistic production and the relationships of sounds and meaning in a particular way. On the other hand, one can draw an analogy between linguistics and literature not only because they are both concerned with language, dealing with relationships between forms and meanings, but also because they both ***mirror*** the way reality is culturally defined by the segmentation and identification of experience, ***shape*** the cultural perception of reality, and ***structure*** the systemic relationships of signs which underlie those cultural perceptions (Genette, 1978: 67).

Still, although literature is not autonomous, but part of the larger signification structures of culture, it is to be seen as a whole, functioning as a system of meaning and reference, in which any particular work becomes the individual articulation, the *parole*, of a cultural *langue*, or system of signification. Since literature is a system, no literary work should be considered as an autonomous whole, but as a meaningful component within the larger frame of cultural meanings, constantly changing in relation to one another across cultures and across time (Genette, 1978: 80-82).

Consequently, there exists a structural relationship between the manner in which language shapes the world of meaning, and the way literary genres do. This conclusion causes Genette to conduct a search for principles of order, coherence and meaning, in an attempt to open the study of genre to new light. Genette focuses on this utterly important element of literature because genre is capable of segmenting experience, and of controlling the attitudes towards it. This is possible due to the fact that different genres make the reader be predisposed to different attitudes, leading to different expectations regarding certain types of situations, actions, psychological, moral, and aesthetic values (Genette, 1978: 79).

Dense in terminological and conceptual distinctions, Genette's studies offer a clear outline of the inevitable changes in the field of transtextuality by following and examining its five branches: architextuality, intertextuality, paratextuality, metatextuality and hypo/hypertextuality. These imitations and transformations are formal and thematic, and when put into practice sometimes cause ambiguity, a literary function, " an intrinsic, inalienable character of any self-focused message, briefly a corollary feature of poetry [...] Not only the message itself but the addresser and the addressee become ambiguous." (Genette, 1978: 71, quoting Jakobson's statement from *Linguistics and Poetics*). Therefore, in analysing literary works, criticism must adjust its tools, to get in touch with the subjectivity of the

creative voice of the work. Among the methods that one can employ Genette mentions intrinsic, phenomenological criticism, that Ricoeur, following Dilthey and Spitzer, referred to as the hermeneutic method: the intuitive convergence of two consciousnesses, the author's and the reader's (Genette, 1978: 74-76). This convergence is mediated by literary language. However, it is not only the writer who ***speaks*** language, but also language that ***bespeaks*** the writer.

Worthy of consideration, in this respect, is the essay *Freud and the Scene of Writing*, from *Writing and Difference* where Derrida (1998 [1979]: 306-324) comments upon Freud's analogy of the way in which the mystic writing pad works, to how the psyche itself records material. A mystic writing pad is a toy very popular with children. Made of a thick waxen board covered with a thin sheet of clear plastic, it allows the child to write on it with any pointed instrument, usually called a stylus. The point of the stylus, when pressed on the plastic, makes a faint indentation in the wax below, and this appears as a dark trace through the plastic. This sheet of plastic actually consists of two very thin layers, one made of transparent plastic, the other of wax, but since the wax layer is so thin, it is transparent as well. The two sheets are detachable, and the "mystic" quality of this toy lies in the fact that when the wax sheet is lifted the dark traces disappear; the pad is as new again. But an examination of the waxen surface below reveals the faint, still perceptible traces left there by the pointed instrument.However, the marks on the pad do not become visible due to the stylus leaving an ink or carbon deposit on the sheet of plastic (in the manner of a fountain pen or a pencil), but because of the contact with the wax layer on the reverse side of the sheet of plastic. This is analogous to perception: the psychic system which receives sense impressions from the outside world remains unmarked by those impressions which pass through it to a deeper layer where they are recorded as unconscious memory. None of us, Derrida argues, apprehends the world directly, but only retrospectively; our sense of that which is beyond ourselves is the product of previous memories, previous writings. "Writing," Derrida points out, "supplements perception before perception even appears to itself" (Derrida, 1998: 306). The mystic writing pad is an appropriate means of explaining the way in which intertextuality works in fiction-writing, for instance: just as we attain identity only retroactively, through a kind of perpetual process of catching up to ourselves, writer, character and reader seem to experience the world post-facto, through the traces of previous experiences, be they literary or not. Writing becomes a physical force that, like those images which enter the unconscious through perception, creates paths that determine the structure and the apprehension of all subsequent experiences.

A similar concept is the palimsest. Palimpsestus has as word-origin the Greek *palin*, meaning again, and ***psen***, meaning to rub, and refers to an ancient document, made of vellum or parchment, on which the original writing has been covered over with new writing, by means of washing or scraping the manuscript, in order to prepare it for recording a new text. This was common practice, particularly

in medieval ecclesiastical circles, and was motivated by the fact that reusing parchment was cheaper than preparing new skin. Economic reasons may not have been exclusive, since many a time Church officials wanted to "convert" pagan Greek script by overlaying it with the word of God. Nowadays, infra-red and digital enhancement techniques employed to recover the erased text, often yielded remarkable results. Pointing to the fact that all writing takes place in the presence of other writings, Genette uses the palimpsest as a model for the function of writing, to subvert the concept of the author as the sole originary source of his/her work. Two extreme views of this notion are mentioned by Genette in his *Literary Utopia* where he discusses Borges's idea that "[i]t has been established that all literary writing is the work of one single atemporal and anonymous author" (Genette, 1978: 51), and Unamuno's assertion that the visible author is nothing more than a secretary used by characters in order to come to life in front of the readers (Genette, 1978: 53-54). Genette considers that the idea that a literary work is essentially determined by its author and, therefore, truly expresses her/him perverted the all-important process of reading. Genette argues thus in favour of text-oriented and reader-oriented criticism, condoning the Death of the Author. In his essay, "Point of View in Fiction", Norman Friedman traces the aesthetic background of this concept, showing that its evolution progresses towards the point, not yet reached, of a definitive death of the author, with no possible hope of resurrection.

Beginning with Aldous Huxley's pertinent question of 1928 "But need the author be so retiring? I think we are a bit too squeamish about this personal appearances nowadays", Friedman (1971: 108) shows that only four years later, in 1932, literary critics came to the realisation that the evolution of the novel, "from Fielding to Ford", could be summarised, in a nut-shell, as "the disappearance of the author" (Friedman, 1971: 108). Since this realisation was, in the 1950s, still at the centre of almost any literary discussion, and the presence of the author, characteristic of the Victorian novel was clearly contrasted with the absence of the author, seen as "the most significant change" in the fiction of that time, Friedman cannot but conclude that "[f]or better or for worse, then, it seems that our "squeamishness" has won the day." (Friedman, 1971:108).

Nevertheless, as Friedman later points out, from Antiquity to contemporaneity, "[f]rom the ancient rhetorician's distinctions regarding "vividness (energy) to the modern aesthetician's study of "projection" (empathy), the relationship between the author's values and attitudes, their embodiment in his work, and their effect upon the reader, have been and continue to be of crucial concern" (Friedman, 1971: 110). And if we take into consideration Genette's view of literature as mirroring the way reality is culturally defined by the segmentation and identification of experience, as well as shaping the cultural perception of reality, in spite of his denunciation of literary criticism based on the author-oriented perspective, there can be but one conclusion: that the author may be dead, but his/her ghosts still haunt our literary fields. For the author could not have disappeared without a trace.

If s/he did, then whose experience, whose perception of reality underlies what is rendered in a work of fiction through the voice of the narrator, be s/he homodiegetic or heterodiegetic? However, since generalisation is something one should always avoid and beware of, this conclusion is not meant to propose a return to the ("good") old days of omniscient narration, but rather to advocate a careful consideration of the presence or absence of the author done on an individual basis.

In Winterson's case, for instance, not only her statement that all her works are, to a certain extent, autobiographical, though none is her autobiography, but also her interviews and her essays, the latter published in the collection entitled "Art Objects", lead us to the conclusion that traces of the author's presence are likely to be found in her novels.

FIRST PERSON NARRATIVE AND THE HERMENEUTICS OF SUBJECTIVITY

Since most of Jeanette Winterson's works employ first person narrative, be it homodiegetic or even autodiegetic, I am trying to trace the origin of the preoccupation with the self back to its philosophical roots, with the help of Michel Foucault. Topics such as the knowing subject, access to knowledge, knowing oneself as subject, appropriating discourse by subjectifying it, are all in the realm of a hermeneutics of subjectivity and their analysis could provide an answer to the question: 'What makes possible the articulation of truth?'. In light of the tenets of Greek philosophy, even the all pervasiveness of motives such as life as a trial, or a journey of initiation, which permeate Winterson's work, can be easily explained. Here is a brief outline of Foucault's considerations on the relationship between human subjectivity and truth telling, which can be used to understand at least some of the reasons underlying an author's preference for first-person narrative.

Foucault starts from the two well-known notions of Greek thought: ***epimeleia heautou*** – the preoccupation with oneself, and ***gnôthi seauton*** – "know yourself". He points out that, in spite of at least two interpretations of the Delphic precept ***gnôthi seauton,*** according to which it meant either knowing exactly what question you really need to ask the Delphic oracle, or acknowledging your mortal nature, this principle is, in Greek philosophy, subordinated to the concept of ***epimeleia heautou*** (Foucault, 2004: 16). This is a fundamental concept, one that never ceased to characterise both the Greek and the Roman culture, spreading its roots to our modern times, to determine our way of thinking as modern subjects, our way of life (Foucault, 2004: 20-21). However, sadly enough, it was the less important concept, that of ***gnôthi seauton***, to permeate our modern thinking, not the other, more significant one. ***Epimeleia*** has, according to Foucault (2004: 22), three important elements:

- a certain manner of seeing things, a type of conduct in society, a way of relating ourselves to the others; for short, an attitude towards the self, the others, and the world
- a way of guarding, directing, forming, exercising our thought, our thinking
- a series of actions that we take in order to become more pure, transformed, transfigured: the assessment of representations as they permeate our mind, the examination of our conscience, the recollection of past experiences, etc.

Foucault (2004: 23-25) engages in an analysis meant to establish what led to this shift, reaching the conclusion that, in spite of the multitude of phrases created to express the principle of ***epimeleia heautou*** ('take good care of yourself', 'withdraw into yourself', 'keep yourself to yourself', 'respect yourself', 'be a friend to yourself', 'keep something to yourself', 'be yourself', 'feel yourself again', 'have something all to yourself', etc.), it has come, in our times, to have a rather negative connotation, fact never encountered in Ancient philosophy, where it always had a positive connotation. This change was marked by the "Cartesian moment", when ***epimeleia heautou*** underwent a process of devaluation, while ***gnôthi seauton*** was philosophically revalued. However, the subject cannot have access to the truth merely through knowledge, but only by way of a progressive transformation of the self, through ***askêsis***, and by ascending to a different status by a movement that can be called ***erôs***.

The split did not happen unexpectedly or suddenly, but originated in Theology, in the Christian dogma, which advocated a belief that has, ever since, wanted to become universal, and which set the foundations for a knowing subject that found his Creator, his model, his complete fulfilment and his maximum of perfection in God (Foucault, 2004: 38-39). Following the split, the idea of truth underwent a significant change. After Descartes, the subject has access only to knowledge of a domain consisting of objects, at the expense of knowledge of the self as subject (Foucault, 2004: 189). The theological touch gives the rational subject access to God's truth (Foucault, 2004: 188). But before the "Cartesian moment" and the theological involvement, philosophers like Plato saw in ***askêsis*** a fundamental principle for the articulation of truth. The principle of ***homoiôsis tô theô*** brings a new element to the subject's relation to truth: the imperative of acknowledging ourselves as participants in the divine reasoning. By knowing myself through ***askêsis***, I, the subject, have access to a being that is the truth, and whose truth, in turn, transforms me, so that I become one with God (Foucault, 2004: 189). This neo-platonic concept of truth is more complete than the modern one, crippled by the split and hampered by the one-dimensionality characterising both the Cartesian, and the theological view.

Foucault points out the difference between the Greek concept of ***askêsis***, whose aim is the construction of ***paraskeuê***, through which we can regain our selves, constitute ourselves as subjects, and the Christian concept of asceticism which means renouncing our selves, living, for religious reasons, without any

physical pleasures or comforts. Although the two terms are oppositional, Foucault shows that there is a point of convergence, in the function of these two terms, one philosophical, the other religious. The ultimate role of ***askêsis*** (originally from the Greek ***asketikos – asketes***, 'person who exercises, hermit' or ***askein***, 'to work, to exercise') was to ensure the subjectification of true discourse, so that we ourselves can be the creators of true discourse, as well as its subjects. Similarly, the Christian path towards renunciation reaches a point where we, the subjects, objectify ourselves in true discourse: this is the moment of confession. However, the similarity does not make the two concepts identical, since ***askêsis*** refers to finding and shaping ourselves as the all important purpose and object of a way of existence, of an art of living, so that we meet with our selves, in true discourse, not with *objectification* but with *subjectification* as a practice exercised by the self upon itself. To appropriate truth, to become ourselves the subjects of true discourse, is the idea lying at the very core of ***askêsis*** (Foucault, 2004: 318-319). Subjectifying true discourse requires skilfulness in the practices of listening, speaking, reading and writing (Foucault, 2004: 339-340).

The advice concerning reading practices originated in philosophical tenets widespread in Antiquity and taken over by modern philosophy with no alteration of their essence: read few authors, few works, only those fragments considered important and sufficient. This practice led to the preponderance of summary writing, and its consequences include the fact that very few works were transmitted to the next generations in their entirety. Another common practice is that of organising significant quotations into anthologies, on a certain topic, or on several carefully chosen topics. Quotations, thus, permeate scholars' correspondence, as they constantly draw one another's attention to a quote that is interesting, important, essential, most of all, worthy of consideration. These quotes are so significant that we are advised to meditate upon them, because the purpose of philosophical reading is neither to merely become accustomed to the work of an author, nor to get to know the dogmatic principles characteristic to his/her work, but to give reasons for meditation, food for thought (Foucault, 2004: 404-406). The sequence ***meletan/graphein/gumnazein*** – to exercise our thinking, to meditate on certain concepts / to write down our thoughts about those concepts / to exercise, to train for reality, in real circumstances – clearly expresses the steps involved in the process of ***askêsis***. The result will encompass such skills as: ***andreia*** - courage, the ability to face adverse external events with dignity and strength, as well as ***sôphrosunê*** – the ability to moderate our reactions, the inner movements of our own selves (Foucault, 2004: 419). Bios - Life is a trial, a series of trials, and we live to educate our selves, therefore we must train ourselves throughout our whole existence (Seneca – *De Providentia*, in Foucault, 2004: 421). We should always see the trials we are faced with as good exercise for our own selves. No matter how great the obstacle, how tragic the event, it is essential for our formation, for our training (Epictet – *The Diatribes*, in Foucault, 2004: 422). But it can only be useful if interiorised, acknowledged, lived, and experienced by the subject as a trial (Foucault, 2004: 464).

The concept of life as a trial is two-folded: in the sense of an experience through which we gain insight into our own selves, and in the sense of training meant to lead us to perfection.

Epimeleia heautou, askêsis and ***erôs,*** all required in the process of striving for truth, are, in Foucault's opinion (2004: 27), the three great forms that, in Western spirituality, have shaped the way in which the subject has been transformed, so as to eventually become capable of uttering true discourse. Winterson, who has many a time been accused of an extreme preoccupation with herself – mainly because, while acting as the judge of a literary award, in a refreshingly honest gesture, she nominated her own novel as the best of the year – is, however, only one of the numerous authors whose work exhibits this utter, though all too natural concern, to a considerable degree. If we are to understand how identity is found, formulated, asserted and reinforced through writing, especially in the case of homodiegetic narrative, we have to examine the notions of subjectivity, truth and writing.

NARRATIVE, AUTHOR, READER

A close examination of Winterson's first-person narratives made by taking into consideration the meaning of the concepts discussed above will show that ***epimeleia heautou, askêsis*** and ***erôs*** play a significant role in identity formation in the case of each homodiegetic narrator. These narrators come to life through their attitude towards themselves, the others, and the world, mirrored by their way of guarding, forming, and exercising their thinking, put into practice in the actions that they take in order to become transformed, — for instance, the examination of their conscience, the assessment of representations as they permeate their minds, the recollection of past experiences, etc. Their journeys through life are trial journeys of self-formation and self-discovery, in which their courage, their ability to face adverse external events with dignity and strength is put to a test, their erotic experiences shape their personality, and at the end of the way they gain insight into their own selves.

The way in which Winterson shapes her characters is relevant for her own way of thinking as a modern subject, and her style permeated by significant, carefully chosen ideas, often reiterated, as leit-motives, constantly draws the readers' attention to a quote that is important, worthy to meditate upon. This technique reminds us of the reading practices required in Antiquity in order to reach ***askêsis***, as do Winterson's very words contrasting the realist, who searches for the objectification of discourse, and the artist, whose aim is subjectification and truth:

"A lover of objects and of objectivity, [the realist] is in fact caught in a world of symbols and symbolism, where he is unable to see the thing in itself, as it really is, he sees it only in relation to his own story of the world. […] The work of the artist is to see into the life of things; to discriminate between superficialities and realities; to know what is genuine and what is make-believe. The artist, through the disciplines or her work, is one of the few people who does see things as they really are, stripped of associative value." (Winterson, 1996: 143-145)

In *Writer, Reader, Words* Winterson (1996: 25) describes the writer as "an instrument of transformation" and literary art as "a way into other realities, other personalities", whose effect on the readers is "to stimulate consciousness." (Winterson, 1996: 26). It is, obviously, ***epimeleia heautou*** that her words make us recall, not the less important ***gnôthi seauton***, against which Winterson even sends out a warning: "[…] Greek myths warn us of the dangers of recognising no reality but our own" (Winterson, 1996: 26). And the author's "lesson" on the skill of reading seems to stem directly from the Ancient tenets:

"Learning to read is more than learning to group letters on a page. Learning to read is a skill that marshals the entire resources of body and mind. I do not mean the endless dross-skimming that passes for literacy, I mean the ability to engage with a text as you would another human being. […] Art is not amnesia, and the popular idea of books as escapism or diversion, misses altogether what art is. There is plenty of escapism and diversion to be had, but it cannot be had from real books, real pictures, real music, real theatre. Art is the realisation of complex emotion." (Winterson, 1996: 111)

Probably because it can be harder to get the reader to identify with a nameless, third person teller, and accept his/her authority, the first person point of view is clearly more popular with Winterson, although even the other types of narration are not discarded without thought. Another reason worthy of consideration is Winterson's conviction that a writer is always turning personal experiences into fiction, therefore all her novels are, to a certain extent, autobiographical, though none of them is her autobiography. This may be why Winterson never masks her voice, but uses a "natural" narrative voice, which is as recognisable as a thumbprint to those who know what to look for. And, since finding the right point of view and the right voice for each individual piece of fiction is vital, this is where the success of this author's work probably lies.

First person narrative causes the audience to engage in a process of reading that always reproduces the very act of story-telling, and makes it possible to forget oneself by identifying with the narrative world presented. If writing and reading cause the loss of self they hinder the classic Socratic dictum to "know thyself." But this danger lurks in the fictional maze only for those who engage in passive reading, giving in to the desire to be surrounded by the text, and thus turning the process of reading into a perceptual rather than a semiotic experience. Active, or true reading, by contrast, is an encounter with signifiers in which the readers continually assert, though they might also repeatedly lose, their independence of the text.

Winterson likes playing games with her audience, and her narrative technique often makes it very difficult for the reader to decide how each story is being told, whether the character is writing it down, telling it out loud, thinking it to her/his self. But there usually is a feeling overwhelming the reader, the feeling that each and every story is something meant for a private, rather than a public audience. The way the first person narrator is relating the story gives us this feeling, and we do not even have to analyse in depth the language chosen, the length of the

sentences, the tone of voice and other such things. We just find ourselves interpreting the story as if it were a secret diary, not a public statement. We often cannot even establish how much time has elapsed between the period when the characters experienced the events of the story and the moment when they decided to tell them. Have only a few days passed, or are the characters reflecting on events of the distant past? Motivation is also not clear: are the narrators making a confession, just trying to clear up events for their own peace of mind, or merely telling a good adventure tale? Most of these aspects never make their way into the text. Whether or not the narrators are actually telling the truth is another important question we cannot refrain from asking ourselves, given our natural impulse to know whether or not we can trust in the teller and accept the story as given. Some narrators insist on their sincerity, but mostly in a playful way: *"I'm telling you stories, trust me."* is the recurrent statement in *The Passion* (Winterson, 1988).

Winterson does not only employ the First Person Protagonist, a point of view in which the characters are telling their own stories. The range of narrator-types is very varied. Sometimes we are faced with a First Person Witness, and the story of the main character is told by another character observing the events; at other times the story is told, not by a witness to the events, but by someone who has heard the story from yet another person, so a First Person Re-teller comes into the picture. Even the most common point of view, the Third Person, comes into play on occasion, the characters are referred to as "she" and "he" and the narrator is not a character in the story. This usually happens in the case of embedded narratives, many a time to be encountered in Winterson's fiction.

Quoting Borges, Genette (1978: 54) argues in favour of a view of literary writing as a node of innumerable relationships, coming to life with each new reading or re-reading, due to its permanent ambiguity and plasticity rooted in its inherent transtextuality. The obvious role that intertextuality plays in Winterson's fiction does not diminish the signification of her creative endeavour. Just like a builder who uses materials made by others, so a writer does not (and cannot) use, exclusively, tools of her/his own making. Winterson cannot resist the temptation to break down the narrative and fill in the gaps with the power of intertextuality. Thus, each of her novels looks like a dream told with interruptions, and centred on the love triangle that plays a pivotal role in all her writings.

The novel has always been a rather impure narrative form, characterised by hybridity, always willing to enlarge its repertoire of effects by drawing on a variety of other forms, be they the older myth, legend and fairy tale, or the more recent personal diary, travelogue and epistolary writing. Jeanette Winterson's work can offer a telling example regarding the flexibility of the novel as a literary form. Underlying the density of Winterson's writing is her persistent dismissal of plot and traditional story line, only used as a premise for amassing a novel-length excursion in her high-style poetic prose, which offers the readers yet another treat. In each clause, sentence and paragraph she handles words magically. Potent observations about time and space blend with autobiographical snapshots in

descriptions of vivid imagery. The chaos Winterson creates by spinning long spirals of stories makes readers lose track continually, but also leaves them a lot of spaces to fill in for themselves, turning the reading process into a highly rewarding experience.

CONCLUSIONS

In conclusion, Norman Friedman's diatribe against the irresponsible 'killing' of the author may serve as a fair warning:

"Perhaps, however, with the final extinction of the author, fiction as an art will become extinct as well, for this art, while requiring some degree at least of objective vividness, requires as well, it seems to me, a structure, the product of a guiding intelligence which is implicit in the narrative […]" (Friedman, 1971: 131)

Anyway, in the end, no matter who has won the battle concerning the disappearance of the Author, it all comes down to the distinction between *mimesis* and *diegesis*, between "the difficulty [the writer faces] of showing what a thing is and the ease of telling how he feels about it" (Friedman, 1971:109). And this is the very realm of point of view in fiction.

Point of view in fiction can best be understood by resorting to the two extreme points in time that mark the evolution of this concept, as outlined in Norman Friedman's essay: Plato's distinction between "imitation" – "When the poet speaks in the person of another we may say that he assimilates his style to that person's manner of talking […]" (Friedman, 1971: 110) – and "simple narration" – "But if the poet everywhere appears and never conceals himself, then the imitation is dropped and his poetry becomes narration." (Friedman, 1971: 110-111) – and, respectively, Joyce's distinction between the author's presence in the three genres, lyric, epic and dramatic: "The personality of the artist, at first a cry or a cadence or a mood [lyric] and then a fluent and lambent narrative [epic], finally refines itself out of existence [drama], impersonalizes itself, so to speak." (In *A Portrait of the Artist as a Young Man*, quoted by Friedman (1971: 111). These two moments, situated at opposite ends in the process of the Author's disappearance, are significant, shows Friedman, due to the fact that point of view "provides a *modus operandi* for distinguishing the possible degrees of authorial extinction in the narrative art." (Friedman, 1971: 111-112).

Winterson's poetic prose could be used as an example to support the deconstructive law of genre that there is no such thing as pure genre. Characteristics traditionally assigned to different genres overlap in her work, giving birth to hybrid forms and functions, whose approach has sooner or later to face their bi-directional, or multidirectional formation and transformation processes. This leads to boundaries being crossed between fiction and non-fiction, poetry and prose, or narrative and drama. A (post)modern author, Winterson acknowledges that neither genre boundaries, nor the traditional norms of cause-effect linear narrative can hinder the spirit of innovative writers who aim to reach the solar core of their work on a new path, of their own creation.

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L'IMPLICATIONS DE L'EFFICIENCE DE LA PROTHESATION ET DE LA MONITORISATION AUDITIF SUR LA COMUNICATION VERBAL ET L'APPRENTISSAGE

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ABSTRACT. The studies that were developed and conducted in two consequent academic years, show the efficiency of hearing aids, but also do an assessment of auditory function. These two parameters were related to the level of verbal communication and specific learning difficulties at pupils with hearing impairments.

La déficience auditive conduit aux limitations et particularités dans le développement du langage, influence négativement l'assimilation des informations de l'environnement, a de l'impact sur l'organisation de la mémoire et sur la *flexibilité adaptative*. Ainsi elle limite le développement de nombreuses compréhensions et habilités et elle fait apparaître des difficultés associées d'acceptation, identité et image de soi. Elle influence la structuration et la fonctionnalité des aspects concrets et abstraits de la pensée.

Pour dépasser les limitations imposées par la déficience sensorielle et pour établir les programmes de récupérations nous nous sommes proposés d'identifier les facteurs qui influencent dans une mesure plus grande le développement complexe de l'enfant déficient d'ouïe.

Le traitement de l'information prise de l'environnement par des canaux sensorials, peut être complète et précise même quand cette information est incomplète ou sa vitesse de transformation est grande. C'est ici que les "exercices de connaissance" qui interprètent des informations de l'expérience antérieure. Les sens se trouvent dans une relation d'interdépendance, qui connaît certains transformations et déplacements des points noueux de l'interaction et du poids de quelques uns d'eux.

Wood et collab. (1986) soulignent deux aspects importants qui se réfèrent à l'information auditive. Celle-ci a un caractère temporel, dans le moment quand elle se produit et s'arrêt. Pour pouvoir l'examiner l'organisme doit développer quelques habitudes. C'est une habitude dont nous avons la tendance de n'être pas conscients, mais qui se développe en commençant avec la vie intra-utérine. Et a des implications multiples, inclusivement dans la réalisation du processus de communication. Cette habilité ne se constitue pas spontanément aux personnes avec déficience auditive congénitale, chose qui se répercute sur leur capacité d'apprendre. Soit qu'il s'agit de l'apprentissage verbal, soit motrice, ils se rappelleront seulement la dernière ou les dernières séquences, le reste étant confus. Pour combattre cette déficience, les activités d'apprentissage devront être séparées en séquences bien précisées, en groupant et ressaisissant ces séquences.

Une autre difficulté rencontrée se réfère au problème du "triangle de référence": un enfant doit faire simultanément des connexions entre soi et l'objet (l'être, l'événement), dont une autre personne lui parle (le parent, l'éducateur). L'enfant qui ouït, dans cette situation a simultanément deux expériences de registres sensorials differents, qui se complètent réciproquement, en s'enrichissant. Il regarde l'objet et écoute les explications de l'adulte ce qui complète l'image et conduit à une représentation mentale complexe. L'enfant sourd doit faire la liaison entre deux expériences visuelles qui se produisent simultanément, mais qu'il peut les percevoir seulement successivement.

En ce qui concerne le langage, Fromkin (cité par Virole, 2000) part de l'hypothèse que si l'espèce humaine est douée génétiquement avec des capacités spécifiques d'apprentissage du langage, alors ces capacités doit se manifester dans tous les langages. A un niveau profond et fondamental les langages oraux et ceux gestuels doivent mettre en jeu les mêmes systèmes cognitifs, en reflétant le même type d'opérations mentales. Les différences entre les deux types de langage résident dans l'utilisation de quelques canaux différents de transmission de l'information.

McGurk et Mac Donald (1976, cité par Lepot-Froment et Clerebaut, 1996) ont étudié le phénomène de l'interaction audio-visuelle concernant la perception du langage. Ils ont montré que, si on donne des informations, sur le canal auditif, informations qui contredise celles fournies par la lecture labiale, l'information visuelle influence inévitablement ce qu'on entend. Le même effet a été mis en évidence pour les stimuli présentés par la lecture labiale. Celle-ci, aussi que l'information auditive laisse un tracé sensoriel qui est interprété par les mécanismes de traitement de l'information phonologique.

Les recherches montrent que les formes auditives et verbales du langage, partagent une structure commune de traitement du signal dans les processus de perception du langage (Summerfield, 1991, cité par Fraser, 1995). Nos jours on considère que l'objet de la perception verbale n'est ni pur auditif, ni pur visuel, mais ce que perçoit le sujet sont des gestes articulatoires exécutés avec l'intention de communiquer. On mentionne ici deux grands positions, relatif aux mécanismes de la perception du langage, qui se base sur les théories suivantes:

- La théorie motrice soutient l'existence d'un tracé spécialisé pour la perception phonétique, qui traite des informations auditives et visuelles. Même si ce système est inné, il st modelé par un processus d'adaptation sélective pour la transformation des gestes articulatoires.
- La théorie de la perception directe, conformément à laquelle on peut utiliser dans la perception du langage, pas seulement les informations auditives et visuelles mais toutes les informations pertinentes existantes dans l'environnement. Donc le système de traitement de l'information avec potentiel linguistique peut être activé par les signales non naturels si ceux-ci possèdent une valeur phonémique.

Cette dernière théorie est soutenue par des recherches qui ont mis en évidence l'apparition de l'effet McGurk quand on présente simultanément des stimuli divergents sur les canaux auditifs et tactiles. La perception du langage peut utiliser des informations fournies par la voie tactile si celles-ci ont une valeur phonémique. Une possible conclusion serait celle que l'être humain peut apprendre la manière d'extraire de l'environnement des informations pertinentes sur les contrastes phonémiques, même si ces informations ne sont pas liée d'une façon naturelle à la perception - production du langage. Ces conclusions permettent la réalisation d'une interface liée au traitement des informations linguistiques par les personnes sourdes: *même si les personnes avec surdité congénitale doivent élaborer des représentations mentales du langage partant seulement des informations visuelles, théoriquement, il est possible que ces représentations montrent des points communes avec ceux des personnes qui ouïssent.*

Il y a une tendance d'exacerber l'importance de la phonologie au détriment des autres aspects du langage. La valorisation des restes d'ouïe est différente d'un enfant à autre et d'un professeur à autre. Il y a beaucoup d'enfants avec déficit auditif qui font appel au support visuel pour percevoir plus concrètement le langage. S'ils ne sont pas encouragés d'utiliser leurs restes d'ouïe en même temps avec la perception visuelle, alors il peut apparaître des problèmes différents de compréhension du message verbal. Apprendre comment ouïr (écouter) c'est un problème d'entraînement, mais aussi de développement.

En processant ces théories et en partant de quelques recherches antérieures nous considérons qu'on s'impose une intervention phonologique complètement différent de l'approche traditionnelle, concentrée sur l'analyse des erreurs et par conséquent sur leur correction.

Autre catégorie d'études est celle qui essaie de surprendre les relations qui existent entre la spécialisation hémisphérique et divers aspects de la déficience auditive profonde. Marcotte et Morere (1990) et Neville (1991) ont effectué des comparaisons sur plusieurs catégories des sujets. Une synthèse de leurs observations est la suivante (après Lepot-Froment, 1996):

- Chez les sujets qui ouïssent on a mis en évidence une supériorité de l'hémisphère gauche dans les taches de reconnaissance des mots écrits.
- Chez les adultes sourds avec la langue materne ASL (la langue des signes américaine) il n'apparaît pas un tel avantage si la modalité de présentation des mots est celle écrite, en échange il se manifeste une supériorité de l'hémisphère gauche pour la reconnaissance des mots présentés dans ASL.
- La supériorité de l'hémisphère gauche se manifeste chez les sourds qui pratiquent ASL seulement s'ils l'ont assimilé pendant les premiers 15 années de vie.
- Il y a une manifestation différente de l'activisme cérébral (mesuré par l'intermède des potentiels évoqués) en fonction de la nature du matériel linguistique, tant au sujets qui ouïssent et au sujets sourds démutisés qui ont un niveau satisfaisant des acquisitions de nature syntactique: la présentation des mots "pleins" est

accompagnée des réponses similaires dans les deux hémisphères ; la présentation des mots avec fonctions morpho syntactique provoque des réponses cérébrales plus accentuées dans l'hémisphère gauche que droite.

Les implications de ces constatations sont les suivantes:

- *La spécialisation hémisphérique n'est pas déterminée par la modalité dans laquelle on présente la langue (visuelle, auditive), mais par al présence de quelques caractéristiques morpho syntactiques;*
- *Il y a une période critique pour la spécialisation hémisphérique regardant le traitement des informations linguistiques dans une modalité donnée;*
- *L'asymétrie hémisphérique pour des mots de liaison est un indicateur pour activer les mécanismes de traitement syntactique.*
- *L'acquisition précoce d'un langage formel (grammatical) est la condition nécessaire et suffisante pour consolider la spécialisation hémisphérique pour le traitement du langage, qui est déterminé génétiquement.*

Tout de même, une des opinions de plus en plus répandue parmi les spécialistes dans la psychologie des déficiences d'ouïe c'est que la réussite de l'éducation orale est assurée par l'introduction et l'utilisation systématique des systèmes de support. Cette opinion est soutenue d'une série de recherches regardant les effets de l'utilisation systématique des systèmes de support du langage verbal.

L'exposé précoce aux systèmes de support permet l'acquisition de quelques représentations du langage qui dérive de la structure phonologique du langage oral. Ainsi, même les sujets avec hypoacousie profonde qui ont bénéficié des systèmes de support ont démontrés capacités d'opérations avec des informations phonologiques dans la résolution des taches spécifiques comme celle de détection et production des rimes.

Chez les enfants sourds le développement phonologique se réalise effectivement avec la condition d'être alimentée par une information adéquate. Le développement du langage oral ne dépend pas de l'audition mais il est conditionné par la réception d'une information précise et exacte indépendant de la modalité sensorielle par laquelle on présente cette information.

L'hypothèse avancée par Dodd (1977,1978, cité par Fraser, 1995) a été contredise par des recherches ultérieures par lesquelles on a montré que seulement la lecture labiale n'est pas suffisante pour le développement du langage oral, tant en ce qui concerne la morpho syntaxe que le langage intérieur.

Marcotte et Morere (1999, cité par Lepot-Froment) suggèrent l'existence d'une période critique, avant l'age de trois ans, quand on réalise la spécialisation de l'hémisphère gauche en vue du traitement linguistique des informations. On soutient l'importance de l'exposé à un langage formel, autrement dit, structuré du point de vue grammatical, pour que cette spécialisation hémisphérique ait place. Probablement, c'est dans la même manière qu'on peut soutenir l'existence d'une période critique pour acquérir la phonologie de la langue si on respecte l'exposé précoce aux aspects morpho phonologiques même par l'intermède des informations visuelles.

Les modalités et les sollicitations spécifiques imposés par la langue maternelle peuvent déterminer les habilités de traitement des informations même dans les taches non linguistiques. Une des conditions, similaire avec la nécessité de répéter un mot plusieurs fois (pour la personne qui entend par voie auditive) est celle de présenter plusieurs fois les mots dans une autre modalité codifiée, pour pouvoir construire des représentations internes exactes.

Fowler et Deckle (1991, cité par Lepot-Froment, 1996) soutiennent la possibilité que le module qui répond du traitement du langage peut être activé aussi par des signaux non naturels si ces signaux possèdent une valeur phonémique sure.

Un principal problème qui apparaît dans la psychologie du langage des déficiences d'ouïe est vraiment si l'information acoustique est indispensable ou il est possible d'acquérir la phonologie, le lexique et le développement du langage intérieur partant des informations fournies seulement visuellement. Il y avait l'opinion que entre les modalités auditive et visuelle est une différence considérable tant en ce qui concerne la précision des informations que leur traitement.

La méthodologie de la recherche

I. Pendant l'année écolière on a réalisé une première recherche-action avec le but d'établir l'efficience de la prothésation, pour établir les limites de l'audiométrie tonale comme méthode exclusive pour examiner la fonction auditive en vertu de laquelle on réalise la prothésation et pour identifier les objectifs spécifiques à quelques modalités d'entraînement auditif. Nous nous sommes proposés l'accoutumance des sujets déficiences d'ouïe avec les taches d'écouter en se basant sur les techniques spécifiques aux démarches d'accoutumance avec l'environnement sonore.

Objectifs:

1. Établir le degré et le type de la perte auditive par l'intermède d'un diagnostique audiométrique complet de la fonction auditive en complétant les audiogrammes qui contient des seuils minimaux de la conduction aérienne établie par audiométrie tonale en casques avec les seuils minimaux de la conduction osseuse.
2. Apprécier l'efficience de la prothésation pour les tons purs
3. Investiguer la capacité de détecter et identifier les stimuli auditifs, instrumentaux et verbaux.

Hypothèses:

1. L'audiométrie tonale éducationnelle est une méthode d'évaluation subjective qui peut constituer un support pour prothéser et monitoriser la fonction auditive des enfants d'école maternelle et des écoliers mais elle ne fournit pas des informations suffisantes pour régler les prothèses auditives. Dans les conditions de l'utilisation comme stimuli les sons non verbaux émis par les instruments musicaux et des vocales (composées des tons) on devra constater l'existence d'une corrélation positive entre les résultats à l'acoumétrie instrumentale et l'audiométrie tonale qui utilise comme stimuli les tous purs.

2. L'acoumétrie phonique et instrumentale peut fournir des informations sur l'efficience de la prothésation, mais elle peut être aussi un moyen d'entraînement auditif qu'on peut utiliser dans l'absence de quelques dotations techniques spéciales.

3. L'entraînement auditif est influencé par les suivants paramètres du matériel non verbal et verbal utilisé dans la stimulation auditive: le caractère continu et discontinu des sons non-verbales qui ont comme élément informationnel le rythme, les structures fréquentielles des stimuli verbaux, la longitude du matériel, la complexité du matériel verbal.

La recherche est composée des étapes suivantes:

1. Investigations réalisées par la méthode de l'audiométrie tonale.

2. L'accoutumance des sujets avec l'environnement sonore.

3. L'examination accoumétrique

3.1. La détection et l'identification des sons produits par des instruments musicaux..

3.2. La détection et l'identification des vocales produites d'une manière isolée.

3.3. L'identification et la compréhension des mots avec signification.

3.4. L'identification et la compréhension des phrases.

Le lot (group) des sujets:

Pour refléter l'hétérogénéité de la population écolière des classes des écoles pour des déficiences d'ouïe on a opté pour la structuration d'un lot expérimental qui inclue les élèves âgés de 9 à 13 ans, qui se trouve dans les années d'études 3-7, avec des pertes auditives modérées, sévères et profondes.

Hypothèses de travail et leur vérification:

3.1. a) Il y a un gain dû à la prothésation en ce qui regarde l'identification des sons non verbaux. Comme $t = -4.219$ à $p < .01$ il résulte que la prothésation, pour l'ansamble du lot des sujets, contribue significativement à l'amélioration de la perception auditive des sons instrumentaux.

b) Dans les conditions des déficiences d'ouïe on constate, audiométriquement, pas seulement une augmentation du seuil minimum mais aussi une déformation du champ de l'audition. Dans les conditions de la prothésation il est possible que la prothèse modifie le champ auditif des sujets en amplifiant quelques fréquences et ne pas amplifiant autres. $\rho = .659$ à $\rho < 0.1$, ce qui exprime l'existence d'une corrélation significative entre les résultats des identifications avec prothèse. Le phénomène s'explique par le fait que les prothèses auditives utilisées par ces sujets réalisent plutôt une amplification linéaire sur toutes les fréquences et pas une sélective.

c) On s'est concentré sur le fait si la perceptibilité des sons discontinus, produits par des instruments (tambour, tambourine) est plus élevée que celle des sons continus, en considérant le rythme comme un élément qui fournit information acoustique suplimentaire, qui peut être bien utilisé même par les sujets avec déficiences neurosensorielles profondes. Les résultats confirment le fait que la contribution informative du rythme, dans le cas des sons discontinus, ne soit pas

une significative car $\chi^2 = 3.538$; P >.05 et ρ < .10. Une explication serait le manque des entraînements auditifs qui valorifient les éléments sursegmentals dont il fait partie aussi le rythme.

3.2. a) La prothésation auditive apporte, dans l'ansamble du lot, une amélioration substantielle de la perceptibilité auditive pour les sons vocaliques parce que t = 5.779 et correspond à un seuil de signification p < .01.

b) À la suite de l'analyse des identifications des vocales réalisée par chaque sujet, on a constaté que la prothésation favorise l'identification de certaines fréquences vocaliques. Nos observations concordent avec celles de Măescu Caraman (1983) regardant (concernant) le fait qu'en fonction du type et la gravité de l'hypoacousie, les vocales qui contient des fréquences hautes sont mieux reconnues par les enfants avec hypoacousie de transmission, pendant que les vocales graves, pur les enfants avec hypoacousie mixte et neurosensorielle, la vocale "a" étant accessible à tous.

c) On a poursuivi si la perceptibilité auditive est dépendante de la gamme des fréquences (baisse, moyenne, haute) dans les deux conditions expérimentales (avec/sans l'utilisation de la prothèse auditive).

Les résultats confirment le fait que la contribution informative des gammes de fréquences ne soit pas significative dans le cas des identifications réalisées dans les deux conditions expérimentales car $\chi^2 = 0.9$, p >.10.

Probablement, ces différences auraient une relevance pour les sujets avec déficiences d'ouïe seulement alors quand les fréquences des différents sons seraient filtrées et amplifiées et on pourrait entraîner ainsi leur perceptibilité conformément la méthode verbotonale.

On peut conclusionner que les seuils minimes à la conduction aérienne, établis par les audiogrammes tonals, ne nous permet la réalisation d'aucune prédiction concernant la capacité des sujets d'identifier, avec ou sans prothèse auditive, les sons verbales, dans le cas présenté les vocales. Autrement dit, la capacité de perceptibilité des sons verbaux ne peut être estimée par les audiogrammes tonals.

d) Les coefficients de corrélation entre les résultats des identifications des sons instrumentales et les résultats des identifications des sons vocaliques dans les deux conditions expérimentales (avec/sans utiliser les prothèses auditives).

Tableau 1

Ident. des sons vocaliques /ident. des sons instrumentales	Sans les prothèses	avec les prothèses
Sans les prothèses auditives	.770**	.558*
avec les prothèses auditives	.210	.189

*= p<.05; **= p<.01

Comme on observe du tableau 1, la seule corrélation fort significative à un seuil de p < .01 est constatée entre les identifications réalisées dans l'absence de l'utilisation des prothèses auditives, d'où résulte que, dans le cas des taches

d'identification des sons instrumentales et/ou des sons vocaliques les prothèses déterminent des modifications de la perceptibilité auditive. Des analyses ci-dessus nous ne pouvons pas préciser la nature de ces modifications, pour cela il est besoin des informations concernant les caractéristiques acoustiques des prothèses.

3.3. a) Les valeurs calculées du teste t indiquent le fait que la prothésation augmente significativement la possibilité des sujets avec déficiences d'ouïe pour identifier correctement les mots monosyllabiques ($t = 6.136 > p < .01$), les mots bisilabiques ($t = 7.319$, $p < .01$) et mots trisyllabiques ($t = 5.260$, $p < .01$).

b) La corrélation fort significative enregistrée dans le cas des identifications des mots monosyllabiques (avec/sans utiliser la prothèse auditive), à la différence des corrélations moins fortes enregistrées dans le cas des mots bi - et trisyllabiques indiquent le fait que, dans ces dernières deux cas, à côté des effets d'amplification de la prothèsation, il intervienne des effets des éléments sursegmentales du langage. Ou, il est bien connu le fait que la nature des prothèses auditives utilisées influence dans une certaine mesure la perceptibilité des éléments segmentaux et sursegmentales.

c) L'existence d'une corrélation entre les résultats à l'audiométrie tonale et cette variante d'acoumétrie verbale signifie qu'on peut récépter mieux quelques structures verbales et que, indifférent de la gravité de la perte auditive, le pattern syllabiques et la longitude des mots doivent constituer des éléments visés par les entraînements auditifs.

Les coefficients de corrélations des rangs entre les résultats à l'audiométrie tonale (conduction aérienne) et les résultats des identifications des mots dans deux conditions expérimentales.

Tableau 2

	Mots monosyllabiques	Mots bisyllabique	Mots trisyllabique
sans prothèse	.515*	.454	.361
avec prothèse	.583*	.546*	.703**

*= p<.05; **= p<.01

Dans les conditions de l'utilisation de la prothèse conventionnelle retroaurri culaires on peut faire des prédictions concernant la capacité des sujets de percevoir un matériel verbal avec signification. Il se paraît que pour entraîner la perceptibilité des mots bi- et trisyllabique, où il apparaît des éléments acoustiques suplimentaires de nature sursegmentale, on s'impose des entraînements spécifiques qui visent de manière spécifique ces éléments.

d) On s'est proposé de surprendre la façon dont le pattern syllabique influence la perceptibilité du matériel verbal avec signification. Les résultats n'ont pas évidencié des différences significatives entre le pattern syllabique car $\chi^2 = 0,9$

correspondent à un seuil de signification p >.10. Il semble que c'est justement ces éléments distinctifs, qui ont une contribution informative suplementaire ne sont pas suffisamment valorifiés par les sujets examinés, fait qui plaide pour organiser des entraînements auditifs qui visent les éléments sursegmentales.

II. La deuxième partie de la recherche s'est déroulée pendant l'année écolière suivant. On a constitué un lot expérimental de dis sujets hypoacousiques, avec l'age de 9 et 14 ans, provenant de trois classes (la III^{ième}; IV^{ième}; VII^{ième}) de l'École pour les déficiences d'ouïe nr. 1, Cluj-Napoca. Leur sélection s'est réalisée en se basant sur les audiogrammes tonals, étant exclus les élèves avec hypoacousie profonde. Ainsi, le lot a inclus les sujets avec hypoacousie modérée et sévère qui utilisent d'une façon efficiente les restes d'ouïe dans les taches de la classe et réussissent de communiquer avec des personnes de l'extérieur de l'école (les étudiants pratiquants de la faculté de Psychopédagogie Spéciale).

Objectifs:

La réalisation d'une évaluation des capacités auditives des sujets dans des conditions aussi proches que possibles de celles quotidiennes, quand les sujets doivent percevoir et perfectionner dans un temps limité différentes structures verbales avec signification.

La réalisation et le déroulement d'un entraînement auditif par lequel on valorifie des potentialités latentes de communication et on stimule des potentialités auditives qui permettent un traitement plus efficient du matériel verbal.

La précisation des trajectoires individuelles des sujets à la suite des entraînements auditives et l'établissement des facteurs qui on influencé les évolutions particulières.

Hypothèses:

1) Etant donné qu'en se basant sut les résultats de l'audiométrie tonale on procède à la prescription de la prothèse, on s'attendrait à l'existence d'une corrélation significative entre ces données et les paramètres de l'audiométrie vocale, situation dans laquelle il se pourrait faire des prédictions sur les capacités auditives des sujets de percevoir, discriminer, identifier et comprendre des patterns verbaux.

2) Des mesures réalisées par la méthode de l'audiométrie vocale en champ ouvert (libre) peuvent apporter des informations sur la capacité auditive et sur le gain fonctionnel obtenu à la suite de la prothésation, en contribuant ainsi, à l'évaluation de l'efficience de la prothésation et à l'évaluation de l'efficience de la fonction auditive. En se basant sur ces mésurements nous nous sommes proposées de comparer les résultats des différents sujets et de suivre leur évolution en temps.

3) Les entraînements auditifs qui utilisent matériel verbal modifient significativement les réponses des sujets même à la stimulation auditive avec des tons purs.

La recherche s'est déroulée dans 3 étapes après le modèle des expérimentes formatives (avant test, étape de formation, après-test):

1. On a appliqué la méthode de l'audiométrie vocale en champ libre, étant établis les paramètres suivants: le seuil d'intelligibilité; le déficit auditif pour la voix; le pourcent d'intelligibilité; le déficit de discrimination.

2. Les sujets ont été soumis à un entraînement auditif basé sur les modèles "de l'Approche naturelle de la conversation" et l'Approche modérée - structurée".

3. On a réalisé l'évaluation de la fonction auditive par la méthode de l'audiométrie vocale, en utilisant d'autres séries de mots des listes de matériel verbal pondéré (équilibré) de point de vue phonétique que celles utilisées pour l'évaluation initiale et on a fait des évaluations des progrès réalisés par les sujets qui ont participé à l'entraînement auditif spécifique.

Hypothèse de travail et leur vérification:

3.1. Aucune des différences calculées aux paramètres établie par l'audiométrie vocale (seuil d'intelligibilité, pourcent d'intelligibilité, déficit de discrimination) avant et après l'entraînement auditif n'est significative dans l'ensemble du lot, care les valeurs obtenues au teste t correspondent à un seuil de signification $p > .10$. Dans cette situation on peut prober l'existence d'un gain significatif sur l'ongle de la fonctionnelle auditive au niveau du groupe de sujets qui ont participé aux entraînements auditifs décrits. Des explications possibles est la durée limitée des entraînements, quand on sait le fait que pour enregistrer des différences notables dans la fonctionnalité auditive et au niveau du coté expressif du langage verbal on ait besoin d'interventions psychopédagogiques intenses et pendant un temps considérable.

3.2. Ayant en vue les résultats des analyses des audiogrammes vocales et les comparaisons entre les paramètres enregistrés pour chaque sujet avec déficience d'ouïe avant et après l'entraînement auditif, il y a une grande variabilité des performances de sujet à sujet. Pour pouvoir identifier ces facteurs qui répondent de l'évolution des sujets sous l'aspect de l'efficience des fonctions auditives et verbales on considère que la monitorisation doit dépasser la sphère de l'audiologie éducationnelle et incluer aussi d'autres informations de nature psychopédagogique concernant les sujets déficients d'ouïe.

3.3. Il est intéressant le fait que ces entraînements dans lesquels on a utilisé le matériel verbal se sont répercutés positivement, dans quelques cas, et sur les réponses des sujets à la stimulation par ton pur. La variabilité est due à des facteurs qui tiennent des conditions internes des sujets (disposition du moment, état de santé, niveau motivationnel pour assimiler le langage verbal). Il y a aussi des facteurs qui tiennent des conditions externes. Ainsi, on a observé des degrés différents de difficulté rencontrés par les sujets en fonction de la mature du matériel verbal utilisé. Le numéro très grand des mots inconnus aux enfants, qui existaient dans les listes de matériel verbal pondéré de point de vue phonétique, a influencé négativement les résultats des enfants aux audiogrammes vocales. BR (le III^{ième} année d'étude, 9 ans) et PC (le IV^{ième}, 12 ans) présentent la même incapacité

auditive (72,5%), les résultats écoliers du premier sujets sont meilleurs que ceux du deuxième, et les résultats des audiogrammes vocaux sont meilleurs au sujet PC. Dans ce cas on observe que les résultats à AV ont été influencés par l'expérience écolière plus grande du deuxième sujet et aussi par le volume du vocabulaire et l'expérience verbale, plus consistantes à ce sujet. Á une analyse phonétique du matériel verbal on a montré que les échèques se sont produits aux mots qui contenaient des groupes consonantiques.

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FÖRDERUNG HÖRGESCHÄDIGTE KINDER – NEU DENKEN

RODICA POPESCU

ABSTRACT. The education of Heraing-Impaired Children – a New Approach. When constructing our new approach to hearing impairment we began from the idea that, in our line of work, we should no longer start from the notion of *„how much the child cannot hear“*, but from *„what the cildren can hear when helped by the appropriate hearing-aid“*. We have designed the new concept of school for hearing-impaired children starting from a new curricular framework meant to allow for the following activities to be carried out within the school: the diagnosis of children 8- monts old, the choise of the appropriate hearing-aid function of the respective degree hearing-impairment; early intervention by means of efficiently involving the parents in the rehabilitation, and the introduction of a new teaching technique that allows for the formation – as early as possible – of oral communication abilities in case of hearing-impaired children.

In der Hörgeschädigtenpedagogik wird die Sprachvermittlung als eine der wichtigsten Förderschwerpunkte bezeichnet. Schon über 400 Jahre streiten, diskutieren und beschäftigen sich die Fachpersonen der Hörgeschädigtenpädagogik über den richtigen Weg der Sprachvermittlung.

Jeden Mensch ist ein einmaliges Wesen, mit einer einmaligen Chance, seinen einmaligen Weg zu gehen.Diese drei „Einmaligkeiten“ sind sinnbildlich die unsere arbeit unterstützenden Pfeiler, beeinflussen unsere Haltung, unsere Denken und Handeln.

Das hörgeschädigte Kind unterscheidet sich nicht nur durch seine auditive Einschränkung von anderen Kindern. Er ist einmalig und einzigartig, ganz speziell in seinen durch die Hörschädigung ausgelösten Bedürfnissen. Daher ist es unsere Aufgabe, das Kind in seinem So-geschaffen-sein, in seinem Dieser-mensch-sein rückhaltlos anzunehmen und zu unterstützen.

Kinder, und ganz speziell hörgeschädigte Kinder, erhalten durch die Betreuungspersonnen ihre einmalige Chance, den ihnen entsprechenden Weg zu beschreiten. Die bezugspersonen müssen das Kind mit ihrer je eingenen Fach-oder Elternkompetenz behutsam begleiten, empathisch unterstützen und mutig immer wieder neue Wege mit dem Kind beschreiten.

Berücksichtigen wir die Einmaligkeit des Kindes, können wir, Eltern und Fachpersonen, nur eine einmalige Förderplanung und Begleitung entwerfen und ausführen.

Das Profil der *Şcoala Specială nr. 2 Sibiu* (*Schule für hörgeschädigte Kinder*) wird zum einen durch Faktoren wie gut ausgebildete Lehrer, guter Unterricht,gutes Schulklima und lebendiges Schulleben bestimmt, zum anderen werden wichtige Variablen durch physische und psychische Lernvoraussetzungen

hörgeschädigter kinder und damit verbunden ihre Bedürfnisse nach einer adäquaten Kommunikation bestimmt (Popescu, 2004).

Veränderte Bedingungen hinsichtlich medizinischer Diagnose und Behandlung, Fortschritte in der Technik hinsichtlich akustischer Versorgung und eine veränderte Arbeit in der Frühforderung bedingen dies. Daher erstellt die Şcoala Specială nr. 2 Sibiu ein Konzept, das diesen veränderten Bedingungen entspricht.

Oberstes Prinzip ist die individuelle Förderung des eizelnen Schüler. Jedes Kind hat einen Anspruch auf lautsprachliche Erziehung. Die Fähigkeiten des Kindes sind entscheident für den ihm adäquaten Zugang zur Sprache. Die Schule beginnt in der Früherziehung mit einem ganzheitlichen, lautsprachlich orientierten, hörgerichteten Förderkonzept. Kinder, die sich nach diesem Förderkonzept nicht ausreichend entwickeln können, werden – bereits in der Früherziehung – zusätzliche hilfen und andere Wege zum Spracherwerb angeboten.

Der Unterrichts – und Erziehungsauftrag umfasst nicht nur die Vermittlung von Inhalten, sondern vor allem auch die Entwicklung der fähigkeit zur Lautsprachkommunikation. Diese trägt ganz wesentlich zur Identitätsbildung und gesellschaftlichen Integration unserer hörgeschädigte Kinder bei.

Die Orientierung am normalhörenden Kind und seiner Sprachentwicklung ist Ausgangs- und Zielpunkt unser pädagogischen Frühförderung. Die Ausrichtung an der „Normalität“ stellt jedoch einen hohen Anspruch sowohl an die Eltern als auch an die Pädagogen. Oberstes Ziel unser hörgerichtet lautsprachorientierten Pädagogik ist die Förderung des hörgeschädigtes Kindes hin zu einer Sprachhandlungskompetenz, die es ihm ermöglicht, sich selbstbewusst und sicher in die sprachliche Kommunikation mit anderen Personnen einzulassen.

Ein Begleiten der Kommunikation, gerade in der ersten Lebensjahren, ist nicht nur angebracht, sondern notwendig, aber ein allmähliches Loslassen des Kindes sollte sobald wie möglich erfolgen. Das hörgeschädigte Kind benötigt die eigenständige sprachliche Auseinandersetzung mit anderen Personen, um selbst Strategien zu entwickeln und Erfahrungen in der sprachlichen kommunikation zu sammeln.

Natürlichkeit in der Sprachverwendung ist die Grundlage von Sprechfreude und gibt letzendlich Mut zum Sprachhandeln.

Es mag kleinlich erscheinen, wenn man Wert darauf legt, ob man in der sprachlichen Auseinandersetzung mit einem hörgeschädigten Kind sich des Ausspruchs „Hör mal !“ oder „Schau mal!“ bedient. Doch hinter diesen scheinbar so inhaltlosen Aussagen steckt eine Grundhaltung, die die gesamte Kommunikation mit dem hörgeschädigten Kind prägen kann. Wir denken dass eine hörgerichtete Förderung, die ein Hörenlernen anstrebt,basiert auf einer Zuhörhaltung des hörgeschädigten Kindes. Nur auf diese Weise kann es nach und nach in die es umgebende auditive Wahrnehmungswelt hineinwachsen. Es muss neugierig werden auf alles Hörbare. Das Gehörte muss Bedeutung erhalten. Je mehr ein Kind spürt und erkennt, welchen Nutzen es aus genauem Hinhören zieht, umso mehr wird es bestrebt sein, zuzuhören und weitere Hörerfahrungen zu machen (Diller, 2000).

Eine an der Hörentwicklung orientierte Pädagogik wird ohne Zweifel der auditiven Wahrnehmung einen besonderen Stellwert beimessen. Hörgerichtetheit darf jedoch nicht das isolierte Trainieren eines Sinneskanals bedeuten. Vielmehr muss die auditive Sinneerfahrung als Teil eines komplexen Wahrnehmungsverbundes betrachtet werden. Ein Kind, insbesondere in den ersten lebensjahren, braucht für seine Entwicklung vielfältige Sinneserfahrungen, die nicht getrennt nebeneinander, sondern ganzheitlich erlebt werden. In dieser Hinsicht stellt, z.B., die rhythmisch-musikalische Förderung ein fundamental wichtiges Angebot für hörgeschädigte Kinder dar.

Die rhythmisch-musikalische Erziehung stellt sich heute die Aufgabe, den Kindern durch die Medien, Musik und Bewegung zu erziehen, zu bilden und zu beeinflussen. Durch die Beeinträchtigung des auditiven Kanals ist das Zusammenspiel der Sinne gestört. Es gilt, durch eine Betonung der Hörwahrnehmung, durch ihre intensive Entwicklungsförderung, die Voraussetzung dafür zu schaffen, dass auch das hörgeschädigte Kind in die Lage versetzt wird, ganzheitlich wahrzunehmen, ohne sich beispielsweise nur auf den visuellen Sinnenkanal stützung zu müssen (Löwe, 1996).

Ein entscheidender Grundpfeiler der Frühförderung stellt eine familienorientierte, partnerschaftliche Elternarbeit dar. Die Eltern werden nicht im Sinne von „Co-Therapeuten“ zur Umsetzung einer von den Fachpädagogen vorgegebenen rezeptur angeleitet, vielmehr wird ihre natürliche Elternkompetenz unterstützt. Es geht nicht darum, dass eine Familie eine allgemein gültige Methode umsetzt, sondern es gilt, die in der jeweiligen Familie vorliegenden Kommunikations – und Interaktionsformen so zu beeiflussen, dass daraus gute Hör – und Sprachentwicklungsbedingungen für das hörgeschädigte Kind erwachsen.

Der heutige wissenschaftliche Erkenntnisstand sowie die Erfahrungen aus der Praxis zeigen auf, dass fast alle, auch die als hochgradig bis resthörig diagnostizierten Kinder hören lernen und dadurch auf nahezu natürlichem Weg Lautsprache erwerben können. Dazu sind in enger Zusammenarbeit mit den Eltern nach unserer erfahrung vor allem folgende Massnahmen notwendig:

- frühzeitiges Erkennen und Diagnostizieren von Hörschäden (Neugeborenen -Hörscreening);
- frühzeitige Versorgung mit Hörhilfen;
- ständiges kritisches Hinterfragen der Effizienz der Hörhilfen vor dem Hintergrund der Hörentwicklung des Kindes mit der Option auf eine;
- möglichst frühzeitige und bestmögliche Feinanpassung der Hörhilfen;
- sofortige hörgeschädigtenpädagogische Intervention zur Förderung der Gesamtpersönlichkeit des Kindes, Förderung der Hörentwicklung, Förderung der vorsprachlichen Kommunikation, Förderung der natürlichen Lautsprachentwicklung.

Das oberste Prinzip für eine Qualitätssicherung ist die interdisziplinäre Zusammenarbeit zwischen den Eltern, den diagnostizierenden Medizienern, der Pädagogischen Audiologie, den betreuenden Frühförderpädagogen und den Hörgeräteakustikern.

Dabei ist es die wesentlichste Aufgabe der Pädagögischen Audiologie, zu einer bestmöglichen Feinanpassung der Hörgeräte beizutragen, indem so früh wie möglich pädagogisch und therapeutisch bedeutsame daten erhoben werden, um diese mit den diagnostizierenden einrichtungen und den versorgenden Akustikern zu vergleichen und gemeinsam zu interpretieren.

Die Schwerpunkte liegen dabei vor allem auf zwei Aspekten:

- mit welchen Hörgeräten ist ein Kind versorgt? Entspricht die Verstärkungsmöglichkeit dieser Hörgeräte dem Hörschaden des Kindes? Erfüllen die Hörgeräte bei der derzeitigen Einstellung ihre Aufgabe?
- Welche pädagogischen Erkenntnisse sind aus den audiometrischen Daten zu ziehen?

Neu Denken - „Hören in einer dialogischen Ekrziehung und Bildung".

1. Ziele:

- verbesserte Voraussetzungen für Hören;
- Veränderung des Lehrer- und Kinderverhaltens
- Hören uns Sprechen lernen um in dieser Welt leben zu können;
- Kompetenzen für ein selbstbestimmtes Lebens (dialogfähig werden);
- Kinder motivieren und befähigen gemeinsam zu lernen; Schüler ist Partner und nicht Objekt der Wissensvermittlung;
- keine akustische Dolmetscherrolle für den lehrer: normales Mundbild, nahezu normales Sprechen, normales Sprechtempo im Unterricht, nichtsprachliche Aspekte (Mimik, Gestik werden einbezogen);
- Hörsprechanlage methodisch sinnvoll einsetzen – beim Gegensprechen innerhalb des Hallradius nur mit Hörgeräte;
- Kriterien für dialoggeleiteten Unterricht: Sprechweise – natürlich und normal; Mundbild – mit-ohne, aus allen Richtungen; Sprachhandeln – umfangreiche sprachliche Begleitung der Handlungen Dialoge; Mimik – Gestik, normal;
- Hören lernen und Spracherwerb stehen in engem Zusammenhang mit der Beziehungnahme und der sich daraus entwickelnden Dialogfähigkeit; Dialogik als Bildungstheorie ist geisteswissenschaftlicher Anzatz;
- Hörförderndes Lehrerverhalten; Interesse am Kind; Doppelrolle und Fangmethode; Sprache durch Handlung verdeutlichen; inhaltlich gute Sprache; Tagebuch; besondere gesprächsführung im Unterricht;
- Verantwortung des Lehrers um Miteinenderumgehen – Aufeinanderverlassen – personale Stärke – Sachklärung zu lernen;
- Sprecherziehung Inhalt einer künftigen Lehrerausbildung.

2. Ausgangslage:

- Umsetzung und Anwendung des neuen Bildungplanes an *Şcoala Specială nr. 2*
- Beginn mit dem Schuljahr 2003-2004

3. Prämissen:

- Potenziale der Kinder soweit wie möglich fördern;
- Weg von der ausschlisslichen "Sprachpädagogik" hin zu einem dialogischen Verhältnis zwischen Pädagogen und Kind;
- Dialogisches Verhältnis nicht nur im sprachlichen Sinne, sondern als Beziehung zwischen Pädagogen und Kind. Das kind muss als Partner gesehen werden und die "Hörgerichtetheit" ist nicht methodischer Ansatz, sondern Grundhaltung der neuen Pädagogik;
- Die Kommunikationsform für die Gruppe ist einheitlich und wird ohne Ausnahme praktiziert, d.h. rein lautsprachliche Zugehenweise ohne visuelle Hilfen.

4. Die Intension der Sprachlerngruppe ist keine kognitive Dimension, sondern die Zugangsweise ist ausschlaggebend.

5. Aufgenommen werden solche Kinder, die die Voraussetzungen entwickelt haben, vorrangig eine über das Hören ausgerichtete Sprachwahrnehmung und Sprachverarbeitung sowie Sprechverbesserung zu haben bzw. Bei denen dies erwartet werden kann. Sprachlerngruppe: hörgeschädigte Kinder mit lautsprachlicher kommunikationskompetenz und einer vorrangig über das Hören ausgerichteten Sprachwahrnehmung und-verarbeitung sowie Sprechverbesserung.

6. Alle Lehrpersonen müssen sich in ihrem Lehrverhalten entsprechend verhalten, dass den Kindern die Chance zum Kommunikationsweg Hören geboten wird.

7. Pädagogische Audiologie

8. Aufgaben der Lehrperson

- Ton-und Sprachaudiogramm sowie Sprachaudiogram mit Störschall;
- beurteilen, ob das Hörgerät adäquat angepasst ist;
- tägliche Überprüfung der apparativen Versorgung (vor allem, CI).

9. Realisierung:

- Videodemonstration und Videokontrollen;
- Tagebuch;
- Einbindung aller in der Klasse unterrichtenden Kolleginnen in das Konzept;
- vorbereiten der Sitzungen sowie begleitende Sutzungen in kommenden Schuljahren;
- beteiligte Kolleginnen: Carmen Ştefănescu- Angela Martin, Manuela Dobrotă-Posa Cornelia, Simona-Viorica Bădilă.

10. Kriterien für hörgeschädigtetes Sprachverhalten:

- Sprachweise: natürliche Prosodie, Rythmik und Melodik, keine Überartikulation, normale Lautstärke mit Variationen;
- Mundbild: Ansprache des Kindes aus allen Richtungen, mal mit mal ohne Mundbild;
- Sprachhandeln: umfangreiche,sprachliche Begleitung der Handlungen. Sprachliche Wiederholungen und Variationen, Veranschaulichung der Sprache mittels Bildern, Fotos, gegenständen oder auch Handlungen; ausdruck von Emotionen uach mit lautmalerischen Mitteln;
- Dialoge: eintreten in einen Dialog über das Spielobjekt; Verstärkung der sprachlichen Äusserungen des Kindes durch Wiederholung und Erweiterung, in Abhängigkeit von der kindlichen Kompetenz; sprechen für das Kind, wenn es etwas äussern möchte, es aber noch nicht kann;
- Mimik und Gestik in normalem Umfang; ebenso normale visuelle Hinweise. Keine Gebärden; in der Komminukation wird als erstes stets der Hörsinn angesprochen.

11. Hörgerichteter Spracherwerb ist geprägt durch:

- ein Interesse am Kind, das sich in folgenden interaktionalen Qualitäten zeigt einer positiven Zuwendung, sehr genau zuhören, hinhören zu können, Empathie zu entwickeln, sich in das Kind hineinversetzen zu können, auf das eingehen zu können, was es sagt und tut, es akzeptiere zu können, kongruent sein zu können, eigene Empfindungen, Vorstellungen, Wahrnehmungen leben zu können;
- die Fähigkeit, die Doppeltrolle und fangmethode anzuwenden, so wie wir dies bereits geklärt haben;
- die Fähigkeit, Sprache und Handlung zu verdeutlichen. Herstellen einer gemeinsamen Sprechhandlungsbasis durch Blickkontakt, Handlungen in Sprache umzusetzen, den situativen Kontext auszunutzen;
- eine inhaltlich gute Sprache;
- gefühlsbetonte Sprache;
- normale, dem Alter und der Entwicklung des Kindes angemessene Sprache;
- lebendige, schüler-und erlebnisbezogene Sprache;
- klar und zielgerichtet formuliert;
- eine gute Wortwahl;
- eine differenzierte Sprache ohne Aussparung bestimmter Wörter oder Formulierung zu gebrauchen;
- komplette, richtige Sätze verwenden;
- ein alters-und sprachentwicklungsabhängige Sprachreflexion.

12. Verwirklichung von hörgeschädigtenspezifischen Qualitätskriterien der Unterrichtsgestaltung, die dem dialogischen prinzip entsprechen

a) Gesprächsführung – Lehrersprache:

- Wie wird der Blickkontakt eingesetzt? Zu welchem Zweck?
- Werden verbale Impulse eingesetzt, um ein Gespräch in Gang zu bringen oder in Gang zu halten? Welche sind das? (z.B. offene Fragen - geschlossene Fragen – Unsinnsaussagen – Äusserungen des Erstauneris, der zustimmung, der Ablehnung usw);
- Werden nonverbale Impulse zum gleichen Zweck eingesetzt? Welche sind das? (z.B. körpersprachlich / medial / Handlungsimpulse);
- Wird die beteilund alle Kinder am Gespräch ermöglicht und gefördert? Wie geschieht das?
- Werden Gespräche unter den Kindern ermöglicht und gefördert? Wie geschieht das?
- Wird die fangmethode eingesetzt? (aufgreifen, erweitern, korrigieren, zurückgeben). In welchen Unterrichtssituationen?
- Werden Hilfestellungen gegeben für korrekte Schüleräusserungen, z.B. über Medien, über Handlung, über die Fangmethoden?

b) Förderverhalten im Bereich des Hörens:

- Macht die Lehrerin auf Hörereignisse aufmerksam?
- Macht sir Hören für die Schüler zum Erlebnis und interessant?
- Verwendert sie Aspekte des Teacherese?
- Lässt sie den Schülern zeit zum hören?
- Plant sie Hörpause ein?
- Gibt es Stellen individuelle Hörförderung?
- Fördert sie die Eigenverantwortung der Schüler für ihr Hören?
- Achtet sie auf Hördisziplin?

c) Lebensnähe, Bezug zur Lebenswirklichkeit, Lebensbedeutsamkeit:

- ist das Thema so gewählt, dass die Kinder zumindest Elemente eigener Erfahrung, eigenen Erlebnes, eigener Interessen darin wiederfinden können?

d) Handlungsorientierung:

- sind im Unterricht Phasen vorhanden, die den Kindern zielgerichtete, evtl. Problemorientierte Handlungen ermöglichen?

e) Strukturierung:

- erhalten die Kinder Struktur auf ihrem Lernweg? Zum Beispiel:
- Über den Wechsel des Arbeitsplatzes?
- Über den Wechsel der Sozialformen?
- Über den gezielten Medieneinsatz?
- Über die Zusammenfassung und das Herausstellen von wichtigen Teilergebnisse?
- Über klare Zielangaben und Problemstellungen zu Beginn von neuen Unterrichtsschritten?

f) Selbstträgigkeit – Mitgestaltung des Unterrichts:

- Äussere Selbsttätigkeit: beobachten und notieren sie Situationen, in denen die Kinder über eigenes Tun den Unterrichtsablauf mitgestalten;
- Innere Selbsttätigkeit: beobahten und notieren sie Situationen, in denen die Kinder über eigene Ideen, Vorschläge, Beiträge den Unterichtsablauf oder gar das Unterrichtsergebnis inhaltlich mitbestimmen.

g) Sozialkooperative Arbeitsformen:

- beobachten und notiere sie Situationen, in dnen die Kinder selbstbestimmend und selbstverantwortlich zusammenarbeiten (üben) können;
- Beobachten und notieren sie Situationen, in denen den Kindern Gelegenheit gegeben wird, Verantwortungsübernahme für ein gemeinsames Ziel/ Arbeitsergebnis im Sinne von Solodaritätsfähigkeit einzuüben.

h) Kriterien eines guten Gespräches mit Hörgeschädigten:

- Fangmethode;
- Bereitsschaft zum Gebrauch;
- Zuhören können / Lauschhaltung haben / dialogische Fähigkeiten haben;
- Hören können;
- Empathie;
- Bei Gruppengesprächen alle einbeziehen;
- Gemeinsames Thema finden und akzeptieren;
- Keine Ja/Nein – Fragen / Antworten, sondern Fragen Stellen zur Initiirung eines Gespräch;
- Spannungsbogen erhalten durch Stimmemodulation und Körpersprache medialer Gesprächanlass;
- Elliptische Äusserung (unvollständige Strukturen, die nur Erwachsene verwenden, z.B. „ach, ja“ und „noch eins!“) fördert bereitsschaft des kindes im Gespräch beim Thema zu bleiben. Umgangssprachliche Floskeln, die Forderung nach vollständigen Sätzen machen das gespräch kaputt;
- Gespräch in Fluss halten (nicht künstlich);
- Gespräche im kreis führen;
- Sitzhaltung, Körperhaltung, räumliche Ebene des Lehrers und der Gesprächsteilnehmer beachten;
- Gesprächbereitsschaft beim Gegenüber erkennen.

13. Kriterien für die Erstellung eines Tagebuchs:

- Das Tagebuch muss die gleichen Elemente in der Visualisierung enthalten wie das Gespräch;
- Tagebuch ist ein visualisiertes Gespräch;
- Es nimmt Ereignisse auf, die für das Kind in seinem Erleben von Bedeutung sind;
- Es ist Mittel zur Fortführung des Gesprochenen;

- Es kann das visualisieren, was das hörende Kind gesprochen hätte;
- Es verwendet Empathieelemente, z.B. lachendes Gesicht;
- Es enhält wenig beschreibende Sprache sondern Dialoge.

14. Kriterien für eine Videoanalyse:

a). Unterichtsatmosphäre:

- angespannt – entspannt und locker;
- ernst – fröhlich;
- langweilig – lebendig;
- unstrukturiert – geordnet.

b). Allgemeines Lehrerverhalten:

- streng – freundlich;
- distanziert – zugewand;
- eng führend – offen mitivierend;
- unklar – eindeutig.

c). Sprachliches Lehrerverhalten:

nonverbale Sprachmittel:

- Körpersprache;
- Gestik;
- Mimik.

verbale Sprachmittel:

- Sprechtempo;
- Sprechmelodie;
- Sprechpausen;
- Sprechlautstärke;
- Sprechrythmus;
- Artikulation.

d). Dialogisches Verhalten:

- Blickkontakt hergestellt;
- Kindliche äusserungen imitierend wiederholt;
- Einfühlend kindliche reaktionen abgewartet (Empathie);
- Kindliche Kommunikationsversuche mit worten ergänzt;
- Kenwörter betont;
- Wörter / Sätze wiederholt.

e). Hörförderndes Verhalten:

- auf Hörereignisse aufmerksam gemacht;
- zum hören Zeit gelassen;
- Hinhören ermöglicht;
- „Hören“ interessant gestaltet;
- Hörverarbeitung der Schüler überprüft;

- Eigenwahrnehmung der Schüler beim Sprechen gefördert;
- Sprechkorekturen über das Hören ermöglicht.

15. Pädagogische Arbeit mit hörgeschädigten Kindern

Die pädagogische Förderung hörgeschädigter Kinder verfolgt vier didaktische und vier methodische Grundprinzipien.

Die vier Didaktischen Elemente sind:

a) Hörentwicklung:

- beste Ausnutzung des Resthörvermögens;
- Höraufmerksamkeit;
- Laut-und Sprachdiskrimination;
- Richtungshören;
- Einsatz technischer Hörhilfen.

b) Spracherwerb:

- Vermittlung von Sprache und Sprechen;
- Ablesefähigkeit;
- Inhaltserwerb (Begriffe, Fachsprache, fremdwörter, sinnrichtige verwendung von Begriffe);
- Sicherung grammatikalischer Strukturen;
- Gesprächtechniken;
- Schrift/Lesen (schon im Kindergarten);
- Körpersprache.

c) Identitätsentwicklung:

- realistische Selbsteinschätzung;
- Abbau der Verstecktaktik – persönliche Eizigartigkeit – Selbstdarstellung;
- Auseinandersetzung mit der eigenen Hörschädigung – sich als Hörgeräteträger zeigen;
- Kontakte zu Guthörende;
- Informationen zur Situation Hörgeschädigter (sozial Hilfen, Beratungsstelle, Dolmetscher…);
- Vorbereitung auf ein Leben in zwei Welten.

d) Erwerb von sozialen, fachlichen, methodischen und medialen Kernkompetenzen:

- Teamfähigkeit;
- Leistungsbereitschaft und Motivation;
- Verantwortungsbewusstsien;
- Durchhaltevermögen;
- Umgang mit neuen Techniken und kommunikationswegen;
- Englisch.

Die vier methodischen Elemente sind:

a) Raumbedingungen:

- Klassenraum mit günstingen raumakustischen Bedingungen (Teppichboden, keine schallreflektierenden Wende, schallabsorbierende Decke);
- Bereitstellung visueller Hilfsmittel;
- Senkung der Klassenfrequenz;
- passender Sitzplatz und keine frontale Tischordnung.

b) Unterrichtsbedingungen:

- ruhige Arbeitsatmosphäre;
- disziplinierte Unterrichtsgespräche;
- akzeptierendes, helfendes und unterstützendes Verhalten von Lehrkraft und Mitschülern.

c) Methodik:

- gut gegliederten Unterricht mit ständiger Zielorientierung beim Lernenden;
- häufige Phasenwechsel zwischen Frontalunterricht, Frei-und stillarbeit, Partner-und Gruppenarbeit;
- starke Individualisierung, besonders bei sprachlichen Themen;
- Visualisierung durch viele Abbildungen und Skizzen;
- Handlungsorientierter Unterricht.

d) Lehrersprache:

- nicht zu schnell;
- keine zu lange Sätze;
- keine grammatikalisch komplexe Satzstrukturen;
- gutes Mundablesebild ohne Mund verdeckenden Bart;
- wesentliche Begriffe und Ergebnisse des Unterrichts mündlich wiederholen.

16. Zukunftorientierung

Beispielhaft,seien folgende Themenkomplexe gennant, mit denen sich die Frühförderung hörgeschädigter Kinder zukünftig auseinander setzen muss:

- Auseinandersetzung mit digitalee Hörgerätetechnologie, mit fortschreitender Cohlear-Implantat-technik, mit neuen audiometrischen messmöglichkeiten;
- Erweiterung der diagnostischen Möglichkeiten;
- Kooperation mit und Öffnung hin zu pädagogischen Nachbarbereichen wie Integration, CI-Centren, Vorklassen, Grundschule;
- Steigerung der Bereitungs-und Förderqualität durch Kompetenzenweiterung in bereiche wie Gesprächführung, Wahrnehmungspsychologie, Videoanalyse, Sprachentwicklungspsychologie, Kommunikationstheorie und Diagnostik.

Frühförderung ist wie kaum ein andere Bereich stets gezwungen, sich als „Vorreiter“ mit neuen pädagogischen, therapeutischen, medizinischen oder technischen Entwicklungen auseinander zu setzen. Häufig leistet sie Pionierarbeit für inhaltliche Veränderungen, die sich dann erst zeitlich versetzt auf die Institution Schule auswirken und übertragen.

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OBJECTS OF REFERENCE. A COMMUNICATION SYSTEM FOR DEAFBLIND INDIVIDUALS

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ABSTRACT. Deafblindness is a combination of visual and hearing loss that comes into various degrees, determining a unique profile of development, communication skills and learning difficulties. Deafblind individuals can make use of many systems of communication according to their level of development, residual sight and/ or hearing and prior experiences. Some of the systems are adapted or augmentative so that the deafblind person can build up interactions, relate to the environment and have access to information, avoid isolation and make progress in different areas of development. One of the frequently used system in order to develop communication skills consists in the use of objects of reference, especially for pre-verbal individuals.

The deafblind child is not a deaf child who cannot see or a blind child who cannot hear. The problem is not an additive one of deafness plus blindness. Nor is it solely one of communication or perception. It encompasses all these things and more. Deafblind individuals are multi-sensory deprived: they are unable to use their distant senses of vision and hearing to receive non-distorted information (McInnes and Treffry, 1982). Individuals with deafblindness are a diverse group with a continuum of needs, which vary depending on the age of onset of deafblindness, degree of sensory loss, presence of associated disabilities and environmental conditions. Because 95% of information comes through our vision and hearing, deafblindness causes a unique profile of development, communication skills and learning difficulties. Deafblind individuals are characterised by:

- limited ability to communicate with their environment in a meaningful way;
- a distorted perception of the world due to the impairment of distance senses;
- reduced ability to anticipate future events or the results of their actions;
- difficulties in motor development, reduced orientation and mobility even in the familiar environment;
- deprivation of many of the most basic motivations;
- presence of many medical problems that determine developmental regression;
- behavioral stereotypes;
- difficulties in establishing and maintaining interpersonal relationships, which can lead to isolation and passivity.

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Communication is a two way process that relies on at least one of the communication partners recognising the communication attempts of the other, assigning meaning to them and responding to their behaviours as if they had communicative value (Hendrickson, McLinde apud Dunst, Lowe, 1986). The foundation of any communication consists in the interactions and personal relationships based on trust between the deafblind child and adult, parent or intervener. It is about "me" and "you" and the necessity and willingness to create this "dialogue".

Many people think that communication is only verbal language or sign language for deafblind children, and set the achievement of one of these as long-term objectives in the intervention. But it is very important to take into consideration the levels of communication and the systems of communication that might be used within. Jacques Souriau says that "it does not seem necessary to wait for a child to be totally competent in one level before moving on to a higher level". This is in correlation with Vigotsky's theory of "proximal zone development", that is to construct on what already exists, but anticipate and implement the following stages. For an able child the development of communication and acquisition of language is linear and surpasses different stages. For the deafblind child we suggest the expression "linear in diversity". This means that communication development is linear and consists of many stages, but a deafblind child can be in his receptive communication at a higher level than the level used for expressive communication, and also that the child can use different systems of communication with different people, who are partners of the conversation. Aitken and Millar (2002) evidentiate that some of the main ways that a child's communication may be impaired are due to:

- difficulties in understanding what people are trying to communicate
- difficulties in expressing views, preference
- visual impairment
- hearing impairment
- language spoken at home.

Each of these factors can operate on its own or in combination.

Communication is the exchange of information by any means possible, in order to determine a change in information, knowledge, behavior and attitude. The deafblind child has to be aware that he can make that change.

Children with deafblindness can communicate at various levels. Sometimes interaction is at a basic level, but this can add enormously to their quality of life, building up relationships with family and others. Others become highly competent users of language in its different forms.

Rowland and Stremel-Campbell (1987) establish the following levels in communication development:

Level 1. **Pre-intentional behavior**: pre-intentional or reflexive behavior that expresses the state of the child. State, like hungry, wet, etc. is interpreted by the observer.

Level 2. **Intentional behavior**: the behavior is intentional, but is not intentionally communicative. Behavior functions to affect observer's behavior since observer infers intent.

Level 3. **Non-conventional presymbolic communication**: non-conventional gestures are used with intent, to affect observer's behavior.

Level 4. **Conventional presymbolic communication**: conventional gestures are used with intent of affecting observer's behavior.

Level 5. **Concrete symbolic communication**: limited use of concrete (iconic) symbols to represent environmental entities. There is a one to one correspondence between symbol and referent.

Level 6. **Abstract symbolic communication**: limited use of abstract (arbitrary) symbols to represent environmental entities. Symbols are used singly.

Level 7. **Formal symbolic communication (language)**: rule bound use of arbitrary symbol system. There are ordered combinations of two or more symbols according to syntactic rules.

Children with deafblindness use communication skills from different levels. They may use a combination of single signs, with pictures to back them up. They may use different systems and modes of communication depending on who they are with, how much of the situation they understand, how tired they are, etc. The intervener must accept all the communication attempts, at any level, encouraging communication at higher level.

Objects of reference is a term that describes the use of objects as a means of communication and was first described by Jan van Dijk in the mid- 1960's as a system of communication for people with congenital deafblindness. The objects of reference, chosen by teachers, therapists or parents to represent significant activities or situations, may be representational. The objects are permanent, manipulable and concrete, and their use should therefore not be problematic (Park, 2002). The user must understand the distance between the vehicle (the object itself) and referent (the concept to which it refers). The main issue is how the concept and meaning develop?

Objects, like words, symbols and signs, can be used intentionally to represent those things about which the individuals communicate: activities, events and people.

Objects of reference can be:

- a real object to represent an event e.g. a cup to represent "drink";
- an associated object e.g. a purse to represent "shopping";
- a miniature of a real object e.g. a small car to represent "going by car";
- an oject with one shared feature e.g. cushion material for trampoline;
- an arbitrary object e.g. an abstract shape to represent "finished". (Rowland, Stremme-Campbell, 1987).

Objects of reference are used frequently in intervention with deafblind children who are at a pre-verbal level of communication. The use of this system encourages the development of concepts, increase of intentionality and joint attention, improvement of communication and social skills, as the child learns to initiate, control and anticipate events from the environment. The use of objects is a natural part of interactions of most children and their parents. A child, for example, knows that he is going to eat as he sees his mother getting ready the table with the spoon and the plates. Children also use objects when they are trying to get something, like they are getting a cup to let their mother know they are thirsty. This can be implemented in intervention and developing communicationat deafblind children.

Coupe and Goldbart (1988) highlight that in order to communicate intentionally children must:

- want to communicate;
- have something to communicate about,
- have someone to communicate with;
- realise that communication is meaningful and bring results.

But how do objects become objects of reference? Keith Parks (2002) talks about the MMF rules: that is meaningful, motivating and frequent. The intervener must answer the following questions when they are choosing an object of reference:

1. Is it meaningful? Does it represent the event or the situation for the child? Does he know what is going to happen after presenting a specific object of reference? Does he understand the association that is made between tha object and the referent (the object, event represented).
2. Is it motivating? It is determined that a child learns things when he is interested and has an inner motivation to do so. For example, Adi, a deafblind child, always uses the tape to show the teacher that he would like to listen to music.
3. Is it frequent? The objects of reference that are used for daily activities or events that happen more frequently are learned easier.

Every individual uses his own objects of reference,. There is no rule when choosing them, but it is important to take into consideration the characteristics of the deafblind child, the residual sight and hearing, tactile particularities, concept development, aspects of receptive and expressive communication. For example, there are children who don't like very soft objects, so these will not be chosen for use.

The use of objects of reference requires the three "c's'": care, consideration and consistency. This refere to:

- care in thinking through the reasons for using them,
- consideration of the factors involved in choosing them, and
- consistency in using them (Park, 2002).

When designing objects of reference, there are some practical considerations that are useful:

- keep the symbols as small as possible as it will allow more symbols to be kept on a board/ tray;
- keep the symbols as flat as possible so that they can be stored in fold up board,
- ensure that the symbol is easy to reproduce.

Size is an important consideration. A student with poor finger dexterity and fluidity of movement requires larger symbols.

Placement is another aspect to consider: a student with Usher syndrome will need his objects of reference placed in his funstional visual field, or a student with a visual motor neglect has little spontaneous use of the communication board in the neglected hemispace (Bloom at al, 1988). Also students with visual motor uimpairments might need symbols to be placed in staggered rows rather than in paralel rows. Angling the board is another option (Bloom, 1988).

Texture can be a problematic issue, as some children may be tactile defensive. It is very important in this situation to do a proper and detailed assessment about causes and elaborate solutions to decrease tactile defensiveness.

Colour coding can be a useful technique to facilitate quick and efficient accessing. If the child has residual sight, Bloom (1988) suggests the following coding system that has been based on semantic categorisation. Thus the child can easily locate the concepts presented:

Yellow = food/ drink
Blue = locations
Pink = activities
Red = feelings.

These are just examples of categorising the objects. After identifying the activities that are motivating for a student, the symbols that are used to represent the activities are chosen. Two issues can arise:

1. using 1: 1 symbol representation where the symbol refers to individual items or activities, e.g. book symbol = book.
2. using whole category representations when one symbol refer to a whole category, e.g. spoon = food.

Both of these methods have advantages and disadvantages. It depends of the specific needs of the child. If the child presents limited cognitive ability it seems easier to teach one symbol for the whole category. This determins a decrease of frustration, because the child couldn’t express his preferances before. The child is also able to choose the item or activity within the category he has identified. It is a process with more steps. After identifying the category like for example “food”, the child can be taught to use 1: 1 symbols, e.g. to choose biscuits from the food board (Miles, Riggio, 1999).

Objects can be used in the form of a schedule of routine daily activities. Arranged in boxes or hung on the wall, vertically or horizontally, the objects give the child the opportunity to "read" the programme for the entire day or at least a number of activities. Some children can only relate two sequential objects. Other children can

follow four or more activities. It is important to reinforce the order of the activities after each one of them is finished. This means that the child "reads" the timetable after every finished activity. This facilitates the development of "time" concepts" before, after, begin, finish, earlier, later. It also gives the child the possibility to anticipate and control. Object schedules can offer occasions for a great deal of conversation about upcoming or completed activities and can also become a way for the child to request specific favourite activities (Miles, Riggio, 1999). Often this is the first form of symbolic communication used expressively by a child who is deafblind.

Objects should always be used in conjunction with other forms of communication such as gestures, signs and speech. Object calendar systems can evolve into picture or braille systems as a child's symbolic understanding increases, and this can be viewed as pre-literacy symbols (Miles, Riggio, 1999).

As a first step it is very important to develop intentional communication. Hendrickson and McLinden suggest the following approaches to develop intentional communication:

- establishing a special relationship with key adults who can interpret his signals and provide consistent feedback;
- encouraging choice through meaningful activities;
- turn taking games which are interesting and fun;
- providing familiar routines in both the home and school environment.

The process of introducing a symbol system consists in planned activities and experiences. Bloom (1990) identifies the following approaches: establishing meaningful experiences, establishing child's interest, establishing interactive style, the evaluation format, the artificial and natural cues and finally the introduction of symbol itself. The most effective way to facilitate communication is to ensure that it is used in natural settings e.g. in course of eating, drinking, toileting (Bloom apud Warren et al, 1985). In this way, the child has the additional benefit of natural cues and immediate reinforcement. It is important ti involve the child in a meaningful task for him. Motivation is a critical element when facilitating communication. This also highlights the importance of assessment, to find out what it is motivating for a child. The teacher must also be a very good observer, showing great attentiveness to the child's signals. Evaluation is an essential part of every program and will help to determine the program's effectiveness, but also the areas that still present difficulties.

The training process involves the establishment of regular and consistent requesting using objects of reference. The components that must be considered are establishing discrimination skills, reduction of artificial cues, dealing with problems and maintaining evaluation procedures (Bloom, 1990). It is important that the child uses the symbol independently and spontaneously. The use of onbejcts of reference must be functional and active. The objects are used for developing receptive, but especially expressive communication. The system allows the child to make choices and to decide for himself. Alternatives must be given to the child. Thus the child improves his self esteem and quality of life increases.

In conclusion, objects of reference can be used for a number of reasons:

- as a bridge to more complex forms of communication such as sign, symbol or word;
- to help develop an awareness and un understanding of the environment;
- as an aide to memory, as a means of timetabling or sequencing the activities of the day or week;
- to help people make choices and express their intents (Park, 2003).

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PRÉSENTATION ET ANALYSE D'UN EXEMPLE D'ABORDER LE CURRICULUM TRANSDISCIPLINAIRE

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ABSTRACT. The analysed example promotes a transdisciplinary perspective, because we have created learning situations in a pluridisciplinary manner and we have stressed the intellectual, affective and physical approaches of the pupils and the modalities to get them used to some disciplines.

We have presented a didactic project at the matter "Sciences" with 3rd class students and also our observations realised in the practical context within the frame of the activity and at the end of this, about the curricular process, respectively about the process of teaching-learning-evaluation.

Structuration curriculaire transdisciplinaire, son rôle dans le contexte de la pédagogie actuelle. Courte présentation.

L'un des paradigmes qui ont été mis et en sont encore à la base des réformes éducationnelles dans le monde entier est le paradigme de l'enseignement concernant l'élève et son activité d'éducation et formation. En étroite liaison on y trouve les différents systèmes éducationnels contemporains qui mettent en évidence, à présent, le paradigme de la compétence- idée présente dans la pédagogie contemporaine qui devient de plus en plus une pédagogie pour des compétences.

On comprend par des compétences les ensembles intégrés de connaissances, capacités et abilités d'appliquer, opérer et transférer les connaissances qui permettent le déroulement avec succès d'une activité ainsi que de trouver une solution efficiente pour un problème ou pour un ensemble de problèmes et situations. La compétence suppose "savoir résoudre" d'une manière efficiente, correcte et rapide une catégorie-classe de situations semblables ou différentes. Mais, dans le contenu des problèmes diversitiés, apparaît la nécessité de former des compétences aussi diverses que complexes: "La compétence apparaît et sera evaluée au confluence des verbes "savoir", "savoir faire, savoir être, savoir devenir, c'est donc le résultat de l'action éducative dans le domaine cognitif ainsi que dans celui affectif et psychomoteur" (R. M. Niculescu, coord. , 2001, p. 226). Grâce à ses compétences une personne peut agir d'une manière efficace, peut raisonner, analyser ou choisir, peut trouver des décisions pertinentes, peut synthetiser les informations, les juger et argumenter, peut identifier et résoudre des problèmes ou même en improviser, peut se débrouiller dans des situations diverses.

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L'acquisition, l'evolution et le développement des compétences sont conçues comme un processus permanent et gradué, parce que les capacités d'un individu s'enrichissent en permanence et connaissent toujours une organisation nouvelle dans certains ensembles. Donc, vu la complexité des compétences et des souscompétences, il est préférable que leur développement se réalise progressivement, par des accumulations successives et intégratives. Par exemple, dans l'enseignement élémentaire, l'âge des élèves, leur état de développement psycho-physique permettent le développement des compétences graduellement acquises, par conséquent il serait mieux d'employer les termes de "capacité" et "dexterité".

La compétence suppose la performance qui en résulte, chose réalisable à long terme. A l'aide des performances on peut influencer le comportement, les manifestations visibles et les performances des sujets à court terme. Par exemple, une difficulté majeure dans le processus d'évaluation c'est l'impossibilité d'observer et évaluer directement les traits psychiques, moraux, les connaissances, les capacités, les dextérités et les compétences, fait réalisable seulement par l'analyse du comportement extérieur, qui peut être analysé et mesuré (M. Bocoş, 2003).

R. Etienne et A. Lerouge qui font l'analyse du phénomène de réalisation des compétences, soulignent: "La réalisation d'une compétence est determinée de l'équilibre entre l'activité isolée de certains élémentes et leur intégration dans des situations opérationnelles. La difficulté didactique est de diriger les deux penchants d'une manière dialectique. Mais c'est une utopie que des croire que l'étude à séquences des connaissances mène spontanément à leur integration opérationnele. "

Les compétences utilisent, comprennent et entraînnent des connaissences. Mais "une compétence n'est jamais une mise en oeuvre « rationnelle » des connaissances, des modèles d'action ou des procedées. Former des compétence n'est pas nier l'acquisition des connaissances. Et pourtant, assimiler des connaissances ne permet pas, *ipso-facto*, leur entraînnement dans une action. "(Ph. Perrenoud, 1997, p. 9).

Nous allons nous arrêter, en parlant d'une classification des compétences, à celle qui opère avec le critère des domaines et les aspects avec lesquels les compétences sont en relation, fait qui impose: *des compétences disciplinaires* (liées à une discipline), *compétences interdisciplinaires* (réalisées par la contribution de plusieurs domaines) et *compétences transversales/ transférables* (réalisées "le long" des disciplines étudiées et des pratiques éducatives - expliquées en acquisitions transférable qui ne sont pas strictement disciplinaires). Quelques exemples de compétences transversales: compétences méthodologiques – prendre des notes – leur systématisation etc. ; l'expression des sujets de recherche, la rédaction des situations problème et leur résultat, la détermination des hypothèse et leur exactité, la rédaction d'un texte, d'un produit média, la relation de groupe et son empathie, l'activité en groupe, la collaboration et l'activité collective d'une activité, l'esprit critique.

L'emploi du paradigme de la compétence suppose la réalisation d'un curriculum axé sur des compétences qui puissent répondre aux exigences présentes et futures de la vie sociale et professionnelle du marché de travail. La pédagogie

actuelle y récommande une perspective stratégique et méthodologique de l'acte d'instruction dont le centre est celui qui apprend et le processus d'apprentissage que traverse celui-ci. Pour assurer, du point de vue théorique et pratique, le transfert d'accent de l'information vers la formation du processus de l'enseignement, la nouvelle vision curriculaire n'est pas axée sur l'action éducationnelle des contenus – fait présent dans l'instruction traditionnelle où l'élèment essentiel était le contenu, mais sur la réalisation des compétences éducationnelles complexes et varieés, supérieures à celle-là.

Il ne s'agit pas d'ignorer ou nier l'importance des contenus, mais de renoncer au paradigme qui évaluait les contenus considérés – traditionnellement – éléments de base de l'instructions, buts de l'instruction et de l'éducation informative. Le nouveau paradigme éducationnel met en valeur le concept – fait de curriculum à des valences intégratrices visant les components et les souscomponents du processus de l'enseignement: des résultats éducationnels, des contenues, des stratégies d'apprentissage et autoapprentissage, des stratégies d'évaluation et autoévaluation etc.

Les théories éducationnelles structurales mettent l'accent sur l'integration curriculaire, le long et à la fin de l'apprentissage. On organise, dans tout le monde, des formes alternatives d'organiser les contenus qui renoncent aux structures monodisciplinaires des disciplines strictement délimitées pour abouter à des problèmes complexes, qui favorisent le fait interdisciplinaire.

Une tel aspect est celui transdisciplinaire qui est holistique, global et qui permet l'intégration de plusieurs disciplines ayant leurs contenues, méthodes et langages visant un sujet on une expérience. Le préfixe "trans" = au-delà de = représente la perspective de dépasser les disciplines pour "les subordonner à l'homme quel'on veut former" (L. D'Hainaut, 1981, p. 217). La structuration curriculaire met l'accent sur les démarches intellectuelles affectives et psychomoteurs de l'élève (communiquer, agir à l'action extérieure, appliquer, s'adapter, prendre des décisions, créer, prouver, expliquer, organiser etc.). Les disciplines ont reçu le statut de transmettre des situations d'apprentissage et expliquer les relations entre diverses situations. Le but d'une telle action et de former plutôt que d'informer (qui a pourtant son rôle).

Analyse d'un exemple de présentation curriculaire transdisciplinaire ayant comme sujet "Le corps humain" la III-ème classe

L'exemple analysé exprime une perspective transdisciplinaire transversale qui veut créer des situations d'apprentissage pluridisciplinaires qui emploient les connaissances intellectuelles, affectives et psychomoteures des élèves pour les familiariser avec d'autres disciplines.

L'activité didactique y présente a été déployée en 2004-2005 à une classe – la III-ème – du Lycée théorique "Ana Ipătescu" de Gherla-Cluj à l'ocassion de l'Activité Pédagogique spécifique à cette classe – la zone de Gherla.

On y joint le projet de cette activité ainsi que les observations faites le long et à la fin de cette activité dans le processus enseigner-apprendre-évaluer.

Projet d'activité didactique

Objet: Sciences
Sujet: Le corps humain
Date: le 9 déc. 2004
Classe: III-ème E, Lycée théorique "Ana Ipătescu", Gherla-Cluj
Enseignant: Narcisa Gălan
Objet de base: acquérir des connaissances nouvelles
Espèce/ Type de leçon: acquisition des connaissances nouvelles
Variante de leçon: leçon basée sur l'activité transdisciplinaire (démarches intellectuelles organisées pour **expliquer** la structure du corps humains, le nom et le rôle de ses parties componentes, la relation homme-environnement etc.
Buts:

- connaître les parties du corps humain
- acquérir des connaissances nouvelles sur les organes de sens et les organes internes
- développer l'esprit d'observation des élèves, de leur pensée et vocabulaire
- l'obligation de respecter l'hygiène personnelle, de protéger les organes de sens et internes, l'importance du sport
- établir les relations homme – environnement
- l'expression orale et la communication verbale
- l'expression des aptitudes chorales
- les rôle des mathémathiques dans les problèmes quotidiens, réels ou imagi- naires
- coller, assembler les matériaux
- l'emploi des éléments de langage artistique-ligue, point, tache de couleur
- le développement du comportement positif envers les handicapés.

Objectifs de référence:
1. 3. observer – décrire les relations homme-environnement
2. 2. découvrir les caractéristiques des animaux
2. 2. identifier les relations homme-homme
4. 1. connaître le rôle des exercices sportifs
1. 3. respecter l'hygiène personnelle
1. 6. manifester l'intérêt dans une communication
4. 1. donner des solutions pour résoudre un problème
1. 1. chanter une chanson (d'après l'ouïe) tout en respectant une intonation correcte
1. 1. organiser une superficie avec des éléments plastiques
3. 2. manifester de l'initiative dans le groupe

Objectifs opérationnels:
O_1 - nommer les parties du corps humain, les décrire d'après les observations personnelles ou à la suite de la conversation euristique avec l'enseignant
O_2 - énumerer les organes de sens à la suite de la conversation euristique avec l'enseignant
O_3 - appliquer les connaissances acquises dans des contextes transdisciplinaires

Stratégie didactique:
a) Système méthodologique: conversation euristique, explication, exercice (méthodes d'enseignement), observation, investigation, activités indépendantes, étude en groupe, l'emploi des problèmes (procédées didactiques)
b) Système des moyens d'enseignement: le corps humain - planche et moulage, jetons des parties du corps humain,jetons pour indiquer les vêtements d'hiver, poupeés, vêtements pour poupeés, aquarelles, pinceaux, feuilles de dessin, envellopes, colle, fiches d'activité indépendante
c) Formes pour organiser l'activité des élèves: frontale, individuelle, par groupes

Déroulement de l'activité didactique transdisciplinaire:

Étapes de l'activité didactiques	Activités de l'enseignant	Activités des élèves	Observations et évaluation
Moment d'organisation	- prépare les matériaux nécessaires - assure le climat favorable pour l'activité (ordre, discipline, motivation des élèves, leur stimulation pour s'impliquer dans l'activité)	- préparatifs pour l'activité – l'observation des matériaux nécessaires	- l'enseignant analyse le sujet à étudier - assez simple pour n'importe qui
Capter l'attention	- la présence d'un élément surprise - le chien Azor qui vient une enveloppe dans un sac - il demande aux élèves de découvrir le contenu du sac - exige le titre de la leçon de sciences	- découvrent la surprise du chien - une lettre adressée aux élèves pour qu'ils l'aident à se souvenir de la leçon "Le corps d'un animal" parce qu'il doit résoudre les mots croisés existents sur le tableau noir - donnent le titre de la leçon "Le corps d'un animal"	- le jeu et la distraction sont nécessaires pour l'activité didactique
Verification des connaissances antérieures	- vérifie les connaissances des élèves concernant la leçon "Le corps d'un animal", à l'aide des mots	- répondent aux questions de l'enseignant	- on realise une vérification frontale des connaissances par des questions

	croisés existents au tableau noir (Anexe 1) - demande aux élèves les mots obtenus verticalement *A-B*		orales par des questions on actualise les connaissances acquises
Présentation du sujet et des objectifs opérationnels – d'après le contexte éducationnel	- on souligne le sujet qui sera étudié, on explique les objectifs opérationnels - on écrit le titre de la leçon au tableau noir	- on répète le titre de la leçon - on comprend les exigences	- la conversation suppose la participation de toute la classe, pour éveiller leur attention
Conduire l'apprentissage	- présente aux élèves une planche avec le corps humain (Annexe 2) - exigences: - nommer les parties du corps humain et les indiquer sur la planche - montrer ces parties sur leur propre corps - décrire – avec les élèves chaque partie du corps - obtenir la conclusion que les parties du corps humain sont: tête, tronc, membres – parties écrites au tableau noir - exige aux élèves à décrire chaque partie du corps - pose les questions suivantes: - De quoi est couvert la tête? - Quel est le rôle des cheveux? - Le rôle des: oreilles, yeux, cils, sourcils, nez? - l'enseignant organise une activité d'investigation par groupe: sentir l'odeur des liquides embouteillés-vinaigre, eau, parfum, alcool	- observent la planche avec le corps humain - donnent le nom des parties du corps et les indiquent sur la planche - montrent les parties de leur propre corps - entanment une conversation euristique - écrivent dans les cahiers les parties du corps - répondent aux questions de l'enseignant - des membres de chaque groupe doit executer les obligations - l'expérience quotidienne est une source d'exemples "La mère de la santé est la propreté" - les élèves executent leurs obligations	- on exige d'appliquer les connaissances acquises - on réalise une évaluation frontale, en utilisant les epreuves pour l'objectif O_1 - les élèves utilisent leurs connaissances antérieures périfiées quotidiennement et font des exercices de pensée - les questions sont des épreuves d'évaluation pour l'objectif O_1

	médicinal - on doit les identifier et préciser la qualité des odeurs – agréables-désagréables - on discute le rôle de l'hygiène contre les odeurs désagréables - les élèves présenteront un proverbe sur la propreté - l'enseignant propose aux élèves de goûter des produits alimentaires mis dans des assiettes, les élèves doivent préciser l'organe du goût. - propose aux élèves de toucher les feuilles d'un cahier et d'indiquer l'organe nécessaire - établit les conclusions concernant les organes de sens: - *les oreilles* pour l'ouïe -*les yeux* pour la vue -*le nez* pour l'odeur -*la langue* pour le goût -*la peau* pour le toucher; - organise une conversation frontale concernant la protection des organes de sens - présente le tronc et exige aux élèves de présenter leurs connaissances sur les organes internes de l'homme - présente aux élèves le moulage du corps humain et les fait observer les organes internes et leur place - on extrait - à l'aide	- les élèves indiquent l'organe du goût – la langue - précisent que l'organe nécessaire à toucher c'est la peau - à la fin de la conversation euristique, les élèves précisent le rôle de chaque organe et en tirent les conclusions concernant ces organes - répondent aux questions en employant leurs connaissances quotidiennes - observent le moulage et la position des organes internes, attentifs aux explications de l'enseignant - présentent les organes internes et leur place dans le corps humain - répondent aux questions, en utilisant leurs connaissances - on en discute, en offrant des exemples, les élèves donnent leurs avis	- épreuves d'évaluation pour l'objectif O_2 - épreuves d'évaluation pour l'objectif O_3 - épreuves d'évaluation pour l'objectif O_1 - le niveau élève de la classe permet les conclusions nécessaires pour protéger les organes de sens - l'évaluation frontale est réalisée par des épreuves pour l'objectif O_3 - par la conversation dirigée, on transmet des connaissances formatives, les élèves sont aussi obligés de

	des élèves le rôle de ces organes - on présente aux élèves les membres (supérieures, inférieures) pour en préciser le rôle - on organise une discution concernant les handicapés et l'attitude obligatoire envers eux - on propose un problème et on exige des solutions concrètes: "Trouvez des possibilités de protection du corps humain".		s'impliquer affectivement
La réalisation de la perfor-mance	- organise une activité par groupe d'élèves qui ont les obligations fixées et le temps de travail – 10 minutes - le groupe de petits lapins - la couleur des vêtements de la fille présentée sur la fiche de travail (Annexe 3) - le groupe d'oursons – le sceau mis sur la paume à l'aide d'un doigt - avec une couleur préférée (Annexe 4) - le groupe des fleurs – les jetons collés indiquent les vêtements d'hiver (Annexe 5) - le groupe des abeilles - on refait un puzzle et les jetons seront collés sur la feuille reçue (Annexe 6) - obligation commune pour tous les groupes –	- accomplissent les obligations	- les groupes d'élèves sont connus antérieurement (on en avait employé dans la classe) - les obligations de travail sont des épreuves d'évaluation pratique pour l'objectif O_3

	habiller chaudement les poupées - après avoir fini le temps de travail, on fait l'analyse des résultats oralement, avec des arguments - séquence de travail indépendant – chaque élève reçoit une fiche de travail ayant deux obligations à accomplir nommer des parties du corps humain, les élèves doivent indiquer les organes de sens - temps nécessaire: 5 minutes (Annexe 7) - donne un problème de mathématiques – vérifié oralement, frontalement (Annexe 8) - lit quelques curiosités et devinettes - l'activité prend fin avec la chanson "Cantique aux mains" - fait l'analyse de l'activité didactique, la participation des élèves, donne des qualificatifs aux élèves actifs qui ont donné des réponses correctes.	- participent à l'analyse du travail, soulignant les réussites ou les éches - résolvent les obligations d'une manière indépendante - proposent des solutions pour résoudre le problème - les élèves impliqués dans l'activité - chantent la cantique	- l'évaluation est formative on va encourager les élèves à persévérer dans leur activité - l'évaluation individuelle à l'aide des fiches permet d'objectivité nécessaire pour atteindre les objectifs opérationnels - épreuves d'évaluation écrite l'objectifs O_1 et O_2

Conclusions issues de l'analyse de cette activité:

- la leçon a été suggestive pour une didactique moderne, abordée aussi d'une manière moderne
- l'enseignante – animatrice – coordonateur de l'activité a reussi à impliquer les élèves qui y ont participé effectivement tout en réalisant des découvertes
- on a accentué la partie formative du processus curriculaire ayant comme résultat un enseignement, apprentissage et évaluation formative
- l'apprentissage intuitif a été réalisé par contact direct avec les objets, par observation, investigation, analyse, description
- les élèves sont déjà habitués à travailler en équipe
- on doit souligner l'organisation d'une séquence différenciéé

- les élèves ont participé avec intéret, ils y s'étaient impliqués directement
- les résultats obtenus à la fin de l'évaluation orale, pratique et écrite met en évidence le niveau élève des objectifs opérationnels
- une telle activité est impossible dans une classe à niveau moyen ou faible.

Suggestions:

Les suggestions des participants ont visé la participation des élèves dans des investigations plus complexes (prendre le pouls, mesurer la température) et la réalisation de certaines copies par les élèves.

L'enseignante veut continuer la manière transdisciplinaire de travail, à des sujets proposés par les élèves ou leurs parents.

Conclusions générales:

La transdisciplinarité suppose la compréhension sélective de certains sujets, conceptes, methodologrés généralisés, existentes dans des domaines scientifiques de synthèse, qui peuvent être employés dans des situations éducationnelles semblables.

Pour former les conceptes transdisciplinaires, pour assurer les lieus entre disciplines diverses, il faut choisir et structurer des contenus, méthodologrés, arguments, démonstrations, questions etc.

Le développement rapide des contenus et leur usure rapide exprime la nécessité de la formation des compétences intellectuelles transversales, des capacités de sélection, systémation, organisation, interprétation et transfert cognitif comme point de départ du processus d'information et formation.

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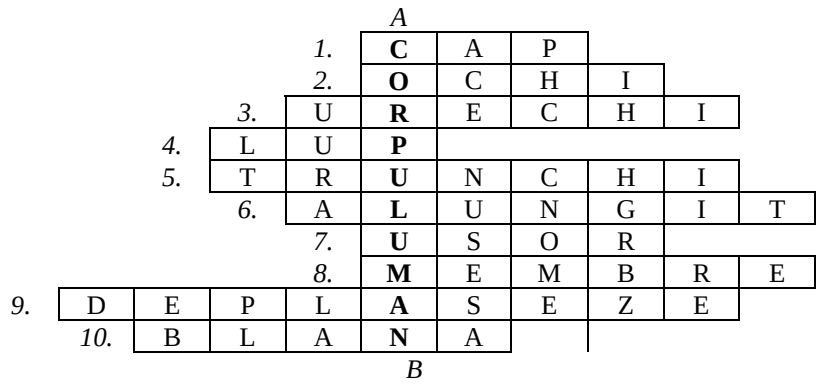
L'annexe première

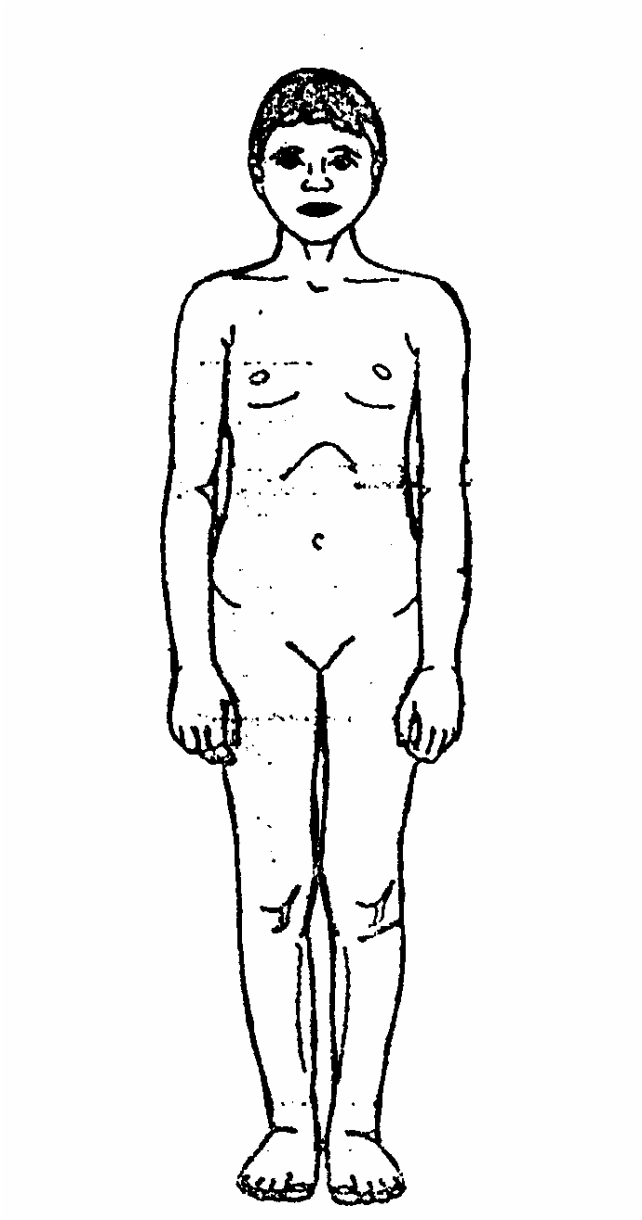
Mots croisés

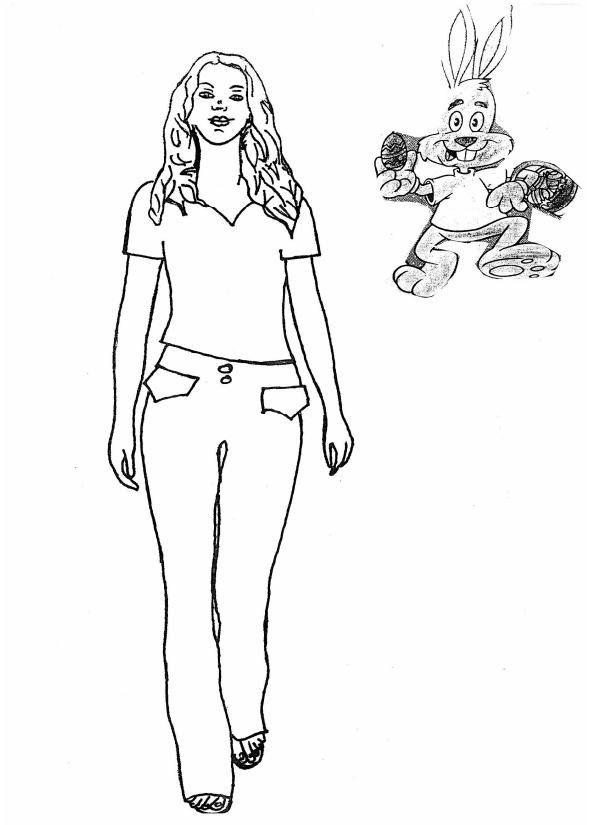


1. La première partie du corps d'un animal s'appelle …
   Réponse: cap (tête)
2-3. En tête, les animaux ont un nez, une bouche, deux … et deux …
   Réponse: ochi (yeux), urechi (oreilles)
4. Animal sauvage qui vit en meute.
   Réponse: lup (loup)
5. La plus grande partie du corps d'un animal s'appelle …
   Réponse: trunchi (tronc)
6-7. Certains animaux ont le corps plus … pour pouvoir se déplacer plus …
   Réponse: alungit (long), uşor (léger)
8. Le corps est soutenu par …
   Réponse: membre (membres)
9. Les membres l'aident à …
   Réponse: deplaseze (se déplacer)
10. Certains animaux ont le corps couvert de poils, écailles, plumes ou …
   Réponse: blană (fourrure)

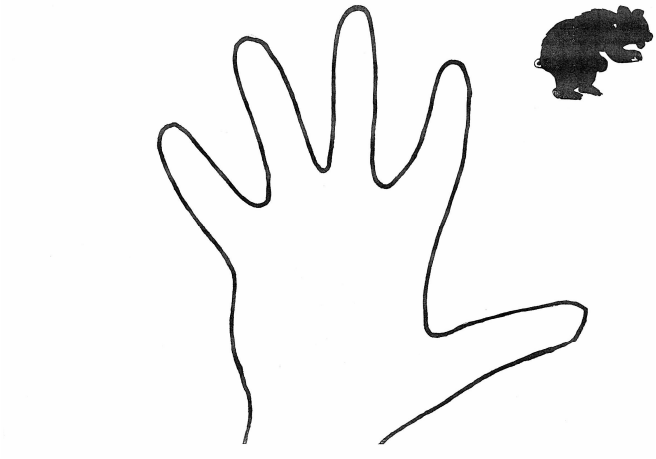
L'annexe 2

LE CORP HUMAIN

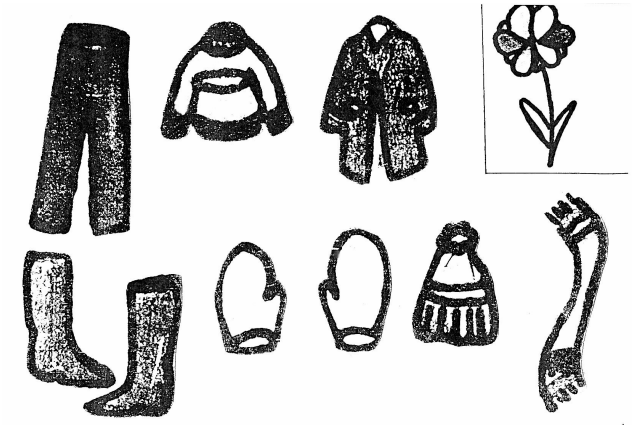




L'annexe 3



L'annexe 4



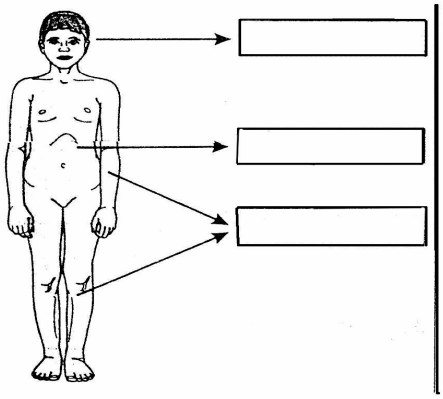
L'annexe 5

L'annexe 6

Nom et prénom_____

FICHE D'ACTIVITÉ

1. Ecrits les noms des parties du corps humain:



Le corps humain est formé de

•_____

•_____

•_____

2. Ecrits les organes de sens:

•_____

•_____

•_____

•_____

•_____

L'annexe 7

L'annexe 8

Le problème de mathematique:

"Combien d'yeux ont cinq hommes?"

STUDIA UNIVERSITATIS BABEŞ-BOLYAI, PSYCHOLOGIA-PAEDAGOGIA, L, 1, 2005

LES IMPLICATIONS DE L'INTERDISCIPLINARITE DANS L'ENSEIGNEMENT DE LA CHIMIE

FLORENTINA CIOMOŞ

REZUMAT. Implicaţiile interdisciplinarităţii în predarea-învăţarea chimiei - Incursiunea în beneficiile aplicării principiului interdisciplinarităţii în învăţământul preuniversitar are drept scop sensibilizarea cadrelor didactice, de regulă cu o pregătire ştiinţifică monodisciplinară, pentru realizarea unor abordări interdisciplinare şi conştientizarea acestora asupra eficienţei predării-învăţării chimiei prin cooperare şi conexiuni interdisciplinare. Articolul de faţă abordează pentru început aspectele teoretice legate de interdisciplinaritate pentru evidenţierea unor argumente epistemologice, metodologice şi psiho-pedagogice în utilizarea acesteia. Aspectele aplicative evidenţiază atât conexiunile interdisciplinare obligatorii, stipulate de programa şcolară, cât şi conexiunile posibile, realizate benevol de cadrul didactic pe parcursul cercurilor de chimie sau prin inserţii didactice în predarea unor concepte interdisciplinare – integratoare. În final se evidenţiază raportul optim, realizat prin aplicarea interdisciplinarităţii, între cantitatea de cunoştinţe însuşite de elev şi volumul de învăţare depus de acesta. Elevii astfel pregătiţi vor avea o gândire divergentă corespunzătoare, un stil cognitiv deschis şi o strategie de învăţare euristică ceea ce le va permite o adaptare adecvată la problemele reale ale existenţei cotidiene.

Aspects théorétiques:

L'interdisciplinarité est un des principes méthodologiques actuels de la philosophie et de la science. Elle provient de la théorie générale des systèmes. Du point de vue épistémologique, cela suppose l'intersection du contenu conceptuel des deux ou plusieurs disciplines sur des «surfaces» de connaissance et d'intérêt communs [1]. Du point de vue méthodologique, l'interdisciplinarité suppose l'usage de la méthode d'abordage systémique pour la connaissance des structures, des connexions et des interactions qui agissent dans la nature, dans la société et dans la pensée de l'homme.

Fondée sur l'idée de l'unité des sciences, l'interdisciplinarité est à la base du développement de la pensée scientifique en général (et des élèves en spécial). Pour trouver des solutions aux problèmes du troisième millénaire, comme: la sous-nutrition, la pollution de l'environnement, l'analphabétisme, le traitement des maladies, l'utilisation incontrôlé des ressorts nucléaires, etc., il est nécessaire une collaboration efficiente des savants des différents domaines scientifiques. Dans cette perspective, l'interdisciplinarité ne doit pas être conçue seulement comme une intégration des connaissances dans le système cognitif des élèves, mais aussi comme une restructuration de leur pensée et de leurs actions.

L'interdisciplinarité dépasse les frontières artificielles qui existent entre les différentes disciplines et réalise le genre de coopération qui permette à chaque discipline de participer avec ses propres systèmes conceptuels et méthodes de recherche pour trouver une solution aux problèmes du monde contemporaine. Dans ce contexte, des sciences intégratives se sont affirmées: la théorie de l'information, la théorie générale des systèmes, la cybernétique, etc. Les sciences intégratives supposent l'élaboration d'un système d'enseignement qui, par son caractère formatif, doit promouvoir la formation d'une pensée interdisciplinaire des élèves [2, 3].

L'enseignement intégré des disciplines scolaires suppose le développement de la pensée divergente, du style cognitif «ouvert» et d'une stratégie heuristique d'enseignement, opposée à une pensée purement quantitative, au style cognitif «fermé» et à la stratégie algorithmique de l'apprentissage, caractéristique aux écoles traditionnelles [4]. La réalisation d'un enseignement pré-universitaire des sciences «dures» (mathématique, physique, chimie, biologie) ne suppose pas un enseignement intégré de tous les concepts d'une discipline, mais seulement des ceux pour la compréhension desquels on aura besoin des connexions avec d'autres disciplines. Dans le tableau suivant, nous avons retenu quelques concepts qui, sur la base des manuels actuels, pourraient être abordés d'une manière interdisciplinaire.

Table no. 1

		Connexions interdisciplinaires		
No.	La notion	L'introduction de la notion	La valorisation de la notion	L'approfondissement de la notion
1	État d'agrégation	Physique VI	Chimie VII	Chimie IX
2	Structure de l'atome	Physique VII, VIII	Chimie VII, VIII	Chimie IX, XII
3	Chaleur	Physique VI, VII	Physique X Chimie X	Physique XII
4	Vitesse	PhysiqueVI, VII	Physique IX	Chimie X
5	Réaction	Chimie VII	Physique XII	Chimie XII
6	Equilibre	Physique VII	Physique IX	Chimie X
7	Electrolyse	Physique VIII	Chimie IX	Chimie X
8	Énergie	Physique VI, VIII	Chimie X	Physique XII
9	Radioactivité	Physique IX	Chimie XI	Physique XII
10	Dissolution	Chimie VII	Physique X	Chimie X
11	Conducteur	Physique VIII	Chimie IX	Chimie X Physique X
12	Protéines	Biologie VII	Biologie IX	Chimie XII Biologie XII
13	Glucides	Biologie V	Biologie VII	Chimie XII Biologie XII
14	Graisses	Biologie VI	Biologie IX	Chimie XII Biologie XII
15	Vitamines	Biologie V, VII	Biologie IX	Chimie XII Biologie XII
16	Photosynthèse	Biologie V, VII	Chimie XII	Biologie XII

Les principales voix d'accès à l'interdisciplinarité, dans l'enseignement pré-universitaire, se situent à trois niveaux (au moins): celui de l'auteur des programmes et des manuels scolaires; celui des formateurs qui peuvent faire des corrélations interdisciplinaires possibles (en fonction de leur culture générale); celui des activités extra-scolaires, pendant lesquelles les formateurs réalisent des corrélations interdisciplinaires [5].

En nous référant au premier niveau d'accès de l'interdisciplinarité, celui-ci commence avec la reprise des contenus scientifiques, l'élaboration du *curriculum* (qui détermine la structure des programmes scolaires) et des manuels et il finit par la transposition didactique des contenus scientifiques restructurés antérieurement par les activités didactiques scolaires et extra-scolaires.

Les arguments psychopédagogiques montrent les valences formatives de l'abordage intégré du *curriculum*. Ainsi, un tel abordage apporte un plus qualitatif profond aux connaissances assimilées, une versatilité et une mobilité nécessaires pour flexibiliser les conduites professionnelles et sociales des élèves. Le fond de connaissances intégrées permet un parcours plus rapide du *curriculum* grâce à la grande vitesse de réintégration des informations. Les relations inter personnelles se développent, elles aussi, grâce à la coopération nécessaire pour accomplir les tâches concernées par de tels projets [2, 3].

La conception et l'élaboration du *curriculum* sont réalisées par des collectifs formés par des cadres universitaires et pré-universitaires, des psychologues et des pédagogues. Le *curriculum* ainsi élaboré suppose un certain adoucissement des frontières entre les disciplines scolaires et la concentration des contenus scientifiques autour des intérêts formulés par les élèves, en concordance avec les demandes de la vie quotidienne. Les disciplines intégrées ont comme but essentiel de préparer l'étude ultérieure des disciplines particulières aussi que la structuration des informations du domaine des différentes disciplines au niveau supérieur, dans les classes terminales du lycée.

Normalement, l'intégration des disciplines scolaires sera effectuée à base d'expérimentes interdisciplinaires de longue durée, qui ont lieu chez nous et dans d'autres pays comme la France, l'Angleterre, la Suède, la Russie. Les résultats de ces expérimentes préciseront le niveau d'étude pour lequel l'intégration des informations sera efficiente, les disciplines impliquées et le niveau de généralité de cette intégration [6].

Aspects pratiques:

Il existe, nous semble-t-il, beaucoup de confusions, au niveau de l'enseignement pré-universitaire, entre l'interdisciplinarité et la pluridisciplinarité. Prenons, par exemple, une démarche pluridisciplinaire autour du thème «Les applications des lasers»:

Le physicien: le laser dans les télécommunications

Le mathématicien: le laser dans la technique de calcul électronique

Le chimiste: le laser dans l'accélération des processus chimiques

Le physicien, le mathématicien, le chimiste: les lasers dans l'art et dans la technique de la photographie

Le physicien et le philosophe: la ré-évaluation du concept d'onde

Le physicien et l'astronome: la télémétrie avec les lasers; le gyroscope avec le laser; les lasers et les satellites artificiels; les lasers dans les appareils spatiaux (navires cosmiques et marins)

Le biologiste: les lasers dans la médicine et dans la biologie

Le professeur d'éducation humaniste: les lasers dans la technique de défense (l'éducation pour la paix et l'éducation écologique)

Le physicien et l'esthéticien (*professeur de religion, morale, éducation humaniste*): les lasers dans le service de la science et de la vie (l'éducation écologique, l'étude géologique, atmosphérique, marin, la mesure des vitesses, la transmissions dans l'espace)

Les interventions mentionnées ci-dessus supposent un élargissement de l'horizon informationnel de l'élève mais elles ne supposent pas une structuration intégrée de la pensée (peut-être seulement une structuration de l'attitude morale, éthique et écologique). Pour arriver à une interdisciplinarité réelle on devrait faire une corrélation adéquate surtout des concepts et des lois d'une discipline avec la structure des concepts et des lois d'une autre discipline et, par la suite, une restructuration des deux.

Dans la catégorie des corrélations obligatoires imposées par le programme scolaire nous nous rappelons les corrélations de la chimie avec les mathématiques (celles-ci relevant d'un langage universel des sciences) et également avec la physique (par les zones de superposition des systèmes physiques et chimiques). Dans la catégorie des corrélations possible à réaliser avec la chimie, on retient premièrement celles qui fonctionnent avec la biologie, puis avec la géographie, l'histoire, etc.

En revenant aux premières corrélations, nous mentionnons aussi la nécessité de prévenir les élèves des petites classes sur l'importance de la mathématique comme langage universel de la science. Ainsi, dans la VIIImme (dans le système roumain), les élèves calculent la concentration de différentes solutions à partir d'un calcul simple de la masse: $m = \rho V$. À ce niveau, on peut observer que le calcul correct d'une des trois dimensions (m, ρ, V) est fait seulement après que les élèves se rappellent qu'ils ont déjà étudié aux mathématiques le calcul d'un terme inconnu d'une proportion: $\rho/1 = m/V \rightarrow m = \rho V$, etc.

Des calcules mathématiques simples liés à la neutralité électrique de l'atome ou de la molécule sont ainsi utilisés par les élèves pour expliquer le caractère électrochimique des éléments (dans cette connexion on implique aussi la physique). Aussi, pour résoudre les problèmes spécifiques de la chimie il faut utiliser l'appareil mathématique, en commençant avec l'écriture d'une formule chimique et en finissant avec les coefficients stœchiométriques d'une équation chimique (une combinaison entre la loi de la conservation de masse et la proportionnalité directe) [7]. Dans le même contexte, nous rappelons la manière dont les élèves doivent résoudre les

problèmes de chimie en s'appuyant surtout sur les lois des gazes (formulées dans la physique) et sur l'appareil mathématique conséquent.

Dans la Xmme, où il s'agit de la cinétique chimique, les élèves doivent calculer la vitesse d'une réaction chimique V = dc / dt (ou 'c' est la concentration et 't' est le temps) par analogie avec le calcul de la vitesse à physique: V = ds / dt (ou 's' est l'espace et 't' est le temps). À l'aide de trigonométrie, les élèves calculent aussi la vitesse d'une réaction chimique à l'aide de la tangente à une courbe tracée, pour représenter l'évolution de la concentration d'un paramètre de la réaction chimique en fonction de temps.

Une combinaison adéquate possible entre la physique et la chimie (avec le support mathématique adéquat) on peut trouver aussi au niveau de la Xmme, dans les différentes manières d'aborder le thème «Aspects énergétiques des réactions chimiques». À ce niveau de développement psychogénétique et scientifique des élèves on peut faire des connexions avec une réelle applicabilité pratique. Ainsi, on peut expliquer les paramètres énergétiques qui caractérisent un système chimique (formé par des réactants, milieu de réaction et produits de réaction), par analogie avec un système physique. (On sait que toute réaction chimique a lieu par le défait des liaisons chimiques des réactants et la formation de nouvelles liaisons chimiques dans les produits de réaction.)

La variation d'enthalpie, qui est accompagnée d'une réaction chimique endotherme ou exotherme (mesurée expérimentalement), peut être calculée à l'aide du paramètre physique de l'énergie de liaison. Ainsi:

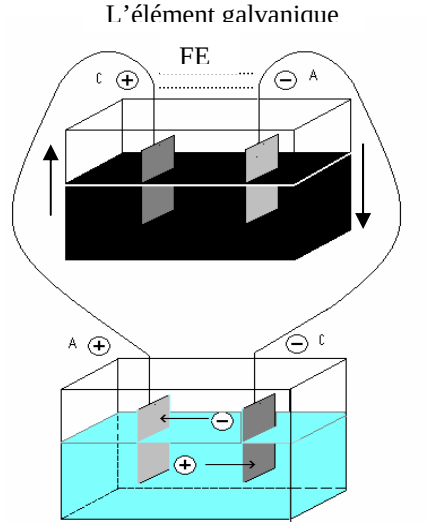
$$\Delta H = \sum \varepsilon_{\text{liaisons défaites}} - \sum \varepsilon_{\text{liaisons formées}}$$

où ΔH est l'enthalpie de réaction. La connaissance de la variation d'enthalpie dans une réaction chimique et l'application de la loi de Hess nous permettent de trouver la voie efficiente du pont de vue économique et optime du point de vue technologique pour la synthèse des produits chimiques.

Dans la même Xmme, dans le cadre du thème «Notions d'électrochimie», on peut exemplifier d'une manière convaincante les connexions interdisciplinaires faites possibles par l'étude du phénomène de la génération d'énergie électrique (dans l'élément galvanique) et celui de la consommation d'énergie électrique pour la synthèse de composés chimiques (dans l'électrolyseur). Dans ce contexte, on pourrait donc discuter autour de l'évolution des concepts couple électrolyse – processus galvanique. Fans le cadre des heures de physique (prévues pour la VImme), l'élève entre déjà en contacte avec certains aspects constructifs d'un accumulateur sec et d'un électrolyseur. Ces aspects sont repris toujours dans le manuel de physique de la VIImme, au moment où l'élève étudie les effets chimiques du courrant électrique. Après cette première connexion, la chimie de la VIIImme présente, elle aussi, les aspects constructifs et le formalisme chimique (qui se réfèrent à la préparation de O_2 et de H_2) de l'électrolyseur Hoffmann.

Dans la IXmme, on redéfinit (dans le manuel de physique comme dans celui de chimie) l'électrolyse (dans la perspective des réactions redox) et on présente des types d'électrolyseurs plus complexes, appropriés à l'évolution en colimaçon ascendante de la démarche scientifique et didactique. Dans la Xmme, par l'étude détaillée de l'élément galvanique, on pourrait faire, aussi, une comparaison avec les électrolyseurs étudiés antérieurement, pour préciser, ensuite, les ressemblances et les différences. Dans la figure suivante, nous proposons un modelage fonctionnel de l'élément galvanique et de la cellule d'électrolyse:

L'élément galvanique



La cellule

où on indique en tant que processus physique le déplacement des électrons et des ions et la génération du champ électromoteur, et en tant que processus chimique la décharge des ions aux électrodes. Sur la base des lois (physiques) du courrant électrique et à l'aide du calcul mathématique adéquat, on déduit, ensuite, les lois d'électrolyse, ouvrant, ainsi, la voie des applications pratiques (grâce aux calcules quantitatives qu'on peut effectuer).

Si on dépasse cette frontière purement théorique vers les applications technologiques de la chimie, on remarquera tout de suite la nécessité des connaissances interdisciplinaires [8]. Pour projeter une pompe ou un réacteur chimique, par exemple, les connaissances de la dynamique des fluides sont absolument nécessaires (le manuel de technologie chimique de la Xmme). Pour purifier les produits obtenus, on aura besoin de connaissances de physique concernant la loi des phases pour: la distillation, la cristallisation, etc. Dans le cas des processus technologiques catalysés (le manuel de technologie chimique de la Xmme), on pourrait aussi étudier les phénomènes physiques d'absorption, les phénomènes chimiques d'adsorption dépendants des paramètres physiques comme: la porosité, la dimension de la surface active, l'angle de mouillage, etc.

La seconde catégorie de corrélations peut être réalisée (au cours d'une leçon) par des insertions didactiques adéquates ou au cours des activités organisées dans les clubs de chimie. Parmi les plus enthousiastes et les plus motivés élèves sont ceux de la VII-ième, qui vient d'étudier la discipline intégrée «Sciences» (la Vmme). A ce niveau, les clubs de chimie peuvent traiter des thèmes comme: Le froid et la chaleur, Le dioxyde de charbon dans la nature, Le circuit du charbon dans la nature, L'importance de l'eau pour la vie, Le rôle de l'oxygène et de l'ozone, Le chimiste photographe, etc.

Dans ce qui suit, on exemplifiera quelques connexions possibles, compte tenu de l'âge des élèves, pour les deux premiers thèmes (l'ordre des connexions partant du côté de la géographie, vers la physique, la chimie et la biologie).

Ainsi, la répartition des zones géographiques est réalisée en fonction de la température, mesurée avec le thermomètre. Les précipitations (la pluie et la neige) sont les effets des phénomènes physiques de condensation et solidification. Une notion qui peut être discutée dans le cadre des classes de physique, dédiées au problème de l'utilisation des appareils électriques de chauffage connectés aux panneaux solaires, thème repris dans le cadre des classes de géographie comme «Sources thermiques non conventionnelles». On pourrait discuter la même notion dans le cadre des classes de chimie, donnant comme exemple les réactions de brûlage du méthane ou du pétrole dans les appareils de chauffage. Les mélanges utilisés pour réfrigérer, qui du point de vue physique provoquent la baisse de la température de l'environnement, trouvent une explication chimique par les réactions endothermes. La biologie explique, elle aussi, l'adaptabilité thermique des animaux et des plantes de différentes zones géographiques. En plus, on pourrait rappeler la préparation des aliments (les aspects pratiques de la nourriture de l'homme) à l'aide de la chimie par des modelages simples, les transformations chimiques souffertes par les aliments par les procédés appliquées (thermiques ou par réfrigération).

Autres exemples. Dans le cadre du thème «Le dioxyde de charbon dans la nature», la géographie donne des informations sur l'existence des eaux carbo gazeux, la physique explique la dissolution de CO_2 dans l'eau et la chimie explique le processus d'ionisation (notion que les élèves peut rencontrer à la fin de la VIIImme). La géographie peut décrire le paysage mirifique des cavernes avec les stalactites et les stalagmites, la chimie peut expliquer, par des modelages adéquats, la dissolution et la solidification de $CaCO_3$ et la physique, la transformation de CO_2 en liquide et en solide. La chimie peut démontrer comment le CO_2 a été la matière première de la première synthèse organique (réalisée par Wöhler en 1828), par laquelle on a obtenu l'urée, le component «odorant» de l'urine. A son tour, la biologie peut expliquer comment, par l'intermédiaire de l'urine, on élimine une série de substances nocives de l'organisme animal. Par la respiration et la photosynthèse, on peut faire aussi une connexion réelle entre la biologie et la chimie (à ce niveau on suggère seulement la synthèse de quelques substances organiques, sans équations chimiques explicites). Mais on pourrait aussi préciser de tels thèmes interdisciplinaires au niveau de l'enseignement du lycée: L'énergie de liaison et ses implications thermiques [4], La photosynthèse de composés chimiques, La protection anticorrosive, La détermination de l'ordre de décharge des ions aux électrodes, etc., etc.

Finalement, il est tout aussi important de rappeler l'impacte de l'ordinateur dans l'apprentissage de la chimie, qui, par un soft adéquat, peut bien motiver les élèves pour l'étude de ce domaine scientifique. La réalisation du soft éducationnel pour la chimie suppose une interdisciplinarité entre l'informatique, la chimie et la psychopédagogie [9, 10]. L'utilisation d'un tel soft - comme celui réalisé par la firme Siveco (2003), intitulé AEL (Assistance Éducationnelle pour les Lycées) - a prouvé un effet bénéfique sur la motivation d'apprendre des élèves, et une meilleure compréhension des connaissances assimilées par l'effort propre de fixation (surtout par l'application des connaissances acquises dans des contextes très variés).

Les exemples présents démontrent l'importance de la perspective interdisciplinaire dans la formation d'une vision générale sur les notions scientifiques qui deviennent, ainsi, «versatiles» et utilisable y compris au niveau de notre vie quotidienne. Il est déjà un fait notoire que la perspective interdisciplinaire suppose la familiarisation des élèves avec les principes scientifiques générales, qui ouvrent sur un vaste champ d'applications. Par conséquent, le rapport entre la quantité de ces connaissances générales et l'effort pour leur apprentissage reste dans des limites d'une haute efficacité et constitue la preuve d'un abord économique de la formation des élèves.

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SYSTEMISCHE ANALYSE IN DAS LEHR – UND LERNPROZESS DER WISSENSCHAFTEN

ADRIENNE NAUMESCU – KOZAN, CATRINEL POPESCU

REZUMAT. Analiza sistemică în procesul de predare – învățare al ştiinţelor într-o abordare interdisciplinară. În lucrarea de față se prezintă un exemplu de abordare interdisciplinară în procesul de predare – învățare la nivelul unei discipline şcolare (în particular ŞTIINŢE).

Direcțiile de perfecționare a procesului de învățământ în etapa actuală sunt analizate prin prisma concepției sistemice. La baza elaborării sistemelor de lecții din cadrul unei unități de învățare din programa şcolară se situează abordarea sistemică care asigură relații inter- şi intradisciplinare între diferitele noțiuni, concepte.

Die Richtungen der Verbesserung des Lehr- und Lernprozesses in der jetzigen Etappe

In der ganzen Welt weisen neue Forschungen darauf hin, dass die systemische Analyse die passende Methodologie für die Untersuchung des Lernprozesses ist. Die systemische Analyse ist die Integration der verschiedenen Richtungen der Verbesserung des Lehr- und Lernprozesses in einem einheitlichen Konzept. (Dumon A., 1986)

In dem Sinne, werden wir eine kurze Analyse des systemischen Konzeptes in Angriff nehmen.

Das systemische Konzept wird von der Theorie der Systeme abgeleitet.

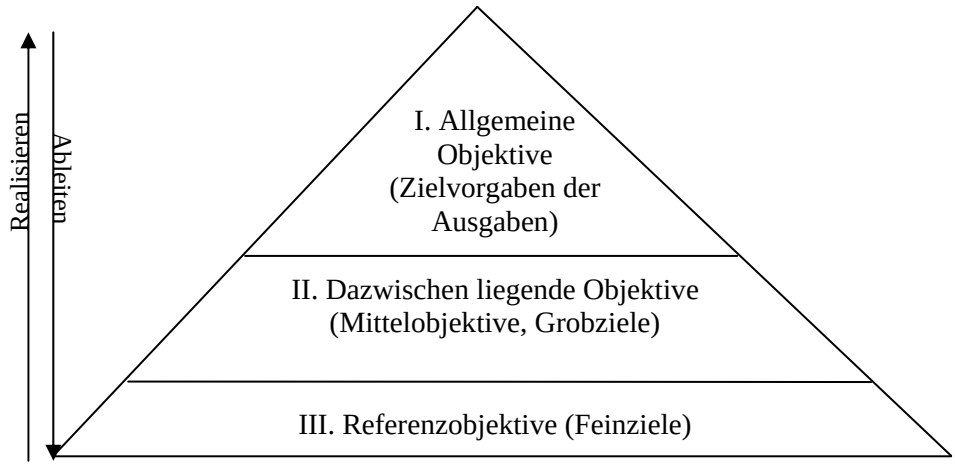
Das System ist eine Ansammlung von Methoden, untergeordnete Systeme eingeschlossen in einer Einheit. Zwischen diesen Lehrweisen können sich zusammenhängende Verhältnisse entwickeln.

Jedes Untersystem folgt die Gesetze des Systems, aber wird von den eigenen Merkmalen beeinflusst.

Die Effizienz oder die Lebensfähigkeit des Systems hängt von der Teilnahme der untergeordneten Systeme an die Verwirklichung des Endziels ab.

Jedes System ist Teil eines übergeordneten Systems (Makrosystem), befolgt die Gesetze des Makrosystems und nimmt bei dessen Verwirklichung teil.

Die Hauptrichtungen des Lehr- und Lernprozesses für Chemie in der heutigen Zeit, im Sinne des systemischen Konzeptes, werden durch die Analyse der Ziele des Didaktikprozesses hervorgehoben. Dies wird in dem nächsten Schema dargestellt. (Naumescu A., Bocoş M., 2004)



Die allgemeinen Objektive beinhalten:

- Das Ideal der Ausbildung
- Die allgemeine Ziele des Lehrprozesses

Die dazwischen liegende Objektive (Mittelobjektive) bedeuten die Ziele des CHEMIE – FACHES und ordnen sich dem Schulprogramm unter.

Die Referenzobjektive stellen das dritte Niveau der Pyramide und gleichzeitig die Objektive des Chemieunterrichts dar. Sie werden im Unterricht durch „feed–back“ erprobt. (Van de Rest, M., 1993)

Die Schulreform verlangt die Erneuerung der Schulprogramme, mit anderen Worten die Verbesserung des Chemieinhaltes als Lernobjekt.

Es wurde eine Differenz zwischen der Anzahl der Chemielehrstunden und der Stoffmenge als Lerninhalt festgestellt, die Folge dessen eine Entwicklung in Richtung „auswendig lernen“ ist. Das Schulprogramm muß dementsprechend reduziert werden, so dass die Menge der Kenntnisse dem Schüler zugänglich ist.

In einer modernen Vision, muß ein Lehrer einen Schüler nicht als „leere Schachtel“ betrachten, um diese Box mit gleichen „leeren Kenntnisse“ zu füllen, sondern, auf die Basis der Vorstellungskenntnisse des Schülers, die aus der verschiedenen Quellen- z.B. Fernseher, außerhalb der Schule gewonnen wurden, neue Konzepte und Kenntnisse einprägen.

Der Lehrer ist verpflichtet einen Filter auf diese Vorstellungskenntnisse anzusetzen, um die wahren von dem falschen zu trennen.

In einer systemischen Hinsicht, könnten die neuen Richtungen des Lehr- und Lernprozesses folgende sein:

1) Ein rationelles Strukturieren des Chemieinhaltes als Lernobjekt in der Schule; das Erreichen eines optimalen Zusammenhanges zwischen der Chemie als Lernobjekt und als Wissenschaft.

2) Die systemische Analyse des Chemieinhaltes mit Beispiele manchen Kapiteln, Themen usw. aus dem Schulprogramm.

3) Die Kapiteln, Themen und Lektionen durch Betonung deren operationellen Charakter zu definieren.

4) Die Anwendung einer heuristisch aktiv – mitwirkenden Methode in der Sequenzausbildung. Z.B.: Problematisierung, Algorithmisierung, Brainstorming, Versuche, kritisches Denken usw.

5) Die Ausbreitung mancher Einschätzungsmethoden der Kenntnisse der Schüler.

6) Die Abstimmung (Selbstabstimmung) des Lehr- und Lernprozesses im Bezug auf die Ergebnisse vom Punkt 5.

Der Chemieinhalt bringt den Schlüssel für die Verbesserung des Lehr– und Lernprozesses. Als Herausforderung für den „heutigen" Lehrer müssen wir nicht nur die Verwirklichung dieser Ziele betrachten, sondern auch die Kenntnisse von einem modernen kritisch- und selbstkritischen Standpunkt ansehen.

Der Inhalt eines Kapitels, als eine strukturierte Einheit, ist durch die systemische Analyse zu bearbeiten. Einige Eigenschaften dieses Inhaltes sind folgende:

a) Eigene Struktur (beinhaltet eine Serie von Subsystemen- untergeordnete Systeme, wie Konzepte, Phänomene, Prozesse, Prinzipien) die von zusammenhängenden Relationen geprägt ist.

b) Es wird die Verwirklichung der Objektiven der Kapiteln bezweckt. Es ordnet sich einem Wissenssystem unter.

Die systemische Analyse eines Kapitels aus dem Schulprogramm verlangt vom Lehrer:

a) Das System zu wählen, im Zusammenhang mit dem Kapitelinhalt;

b) Das System in dem übergeordneten System zu integrieren;

c) Die untergeordnete Systeme und die zusammenhängenden Relationen mit deren spezifischen Eigenschaften zu finden und zu definieren;

d) Das Endziel des Systems festzulegen;

e) Die Festlegung der Objektiven des Kapitels.

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THE EVALUATION OF THE TEACHERS' COMPETENCES IN THE CONTEXT OF INTERDISCIPLINARITY DURING THE CONTINUOUS FORMATION PROGRAMME "MAGISTER I"

MARIA ELIZA DULAMĂ[1], OANA-RAMONA ILOVAN[2]

ABSTRACT. – On y présente les items et les résultats obtenus au test passé à la fin du cours «La Didactique de la géographie» du Programme de Formation continue des professeurs «Magister I», organisé par le Département pour la Formation du Personnel Didactique de l'Université „Babeş- Bolyai" de Cluj-Napoca. Les neuf items concernent l'évaluation formative et la vérification de la réalisation de certains objectifs par les professeurs: l'utilisation des techniques d'organisation graphique des connaissances, qu'ils puissent ensuite employer dans l'activité didactique; l'utilisation des méthodes de recherche propres à la géographie; l'utilisation de certaines techniques qui développent les habilités de pensée et la créativité des professeurs, mais aussi celle des élèves ; l'utilisation de diverses techniques d'évaluation. Pour le test, on a employé, dans la plupart des cas, des techniques RWCT (Reading and Writing for Critical Thinking), pour la stimulation de la créativité des professeurs, pour le développement des capacités de pensée, en général, et de pensée critique et latérale, en particulier. Cet instrument, originel par sa conception et efficace en évaluation, a été pour les professeurs une provocation inédite et intéressante, et il a offert au formateur beaucoup de satisfactions.

*

1. General Data Related to Organizing the Continuous Formation Programme for Geography

The activities of learning and evaluation took place within the framework of the continuous formation programme "Magister I", organised in 2004 by the Department for the Training of the Didactic Personnel, "Babeş-Bolyai" University. Twelve teachers from Cluj County, twelve from Bistrița-Năsăud county and thirty from Covasna took part in the formation activities and were evaluated.

At the end of the formation programme, the teachers should have been capable of:

- organising efficiently the curricular and extracurricular didactic activities;
- using different forms, methods and instruments of evaluating their pupils' results;
- using optimally the diverse channels, codes, means and techniques of communication;
- of developing their didactic activity in a way that should stimulate critical thinking, creativity and his or her own strategic learning and the pupils' one;

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• of organising activities that facilitated the development, consolidation and perfection of the pupils' personal practical and cognitive skills.

The formation programme consisted in organising individual and interactive activities, within small groups or frontal ones, where a constructivist environment was built up, respecting the Evocation – Realising the sense – Reflecting model. During these activities the professors had a double role: that of the person that learned and of the one that projected, organised and evaluated/self-evaluated the process of learning and its results. Each learning situation was analysed by us and by the teachers in order to clarify the objectives, the methodology, the knowledge type they had acquired and their evaluation.

In order to evaluate the teachers' competences, aside from the formative and current evaluation, at the end of the formation programme, we used the following methods of evaluation: a questionnaire and an essay related to their own activity; a test focusing on the methods and didactic techniques that they had made use of; a lesson project that includes a test of evaluating the pupils' knowledge and a record of self-evaluating the teacher's lesson. The purpose of applying all these evaluation instruments was not that of strictly measuring the obtained results in order to give marks, but rather a way of exercising the teachers' competences.

2. From the Purpose to the Formulation of the Test Items

The test was made up of nine items, each of them consisting of one point out of the final mark. By having the teachers solve these items, we focused on reaching the objectives of using the techniques of graphical organising of the knowledge that they might, later on, apply in their didactic activity; using the specific research methods of Geography; using certain techniques that develop the abilities of thinking and creativity specific to the pupils; using diverse techniques of evaluation. The way, in which the items were formulated targeted at the teachers choosing certain content elements, thus determining a variety of papers and allowing them to work in a flexible and creative way.

By means of using the first item, we evaluated the teachers' competence of formulated arguments for supporting or negating an affirmation, and as far as the knowledge was concerned, it was important that the teachers and pupils identify the sources of inexhaustible energy and reflect critically upon the advantages and disadvantages of using them.

In the second item, we evaluated the teachers' competence of using a geographical research method, of investigating the geographical space, of identifying the real problems and the solutions for solving them.

By means of the third item, we evaluated the teachers' capacity to distinguish the features of several concepts, of several components of the environment or of certain geographical spaces, their capacity of making objective comparisons and of graphically organising the information that they had previously deduced while analysing, comparing and abstracting.

Our purpose of using the fourth item was to evaluate the teachers' capacity of describing concisely a phenomenon that took place in several phases, of

mentioning the moment of its taking place, its duration, frequency, of delimiting the area of its development, of deducing its cause or the hidden causes, of identifying those conditions that amplify, constitute a hindrance or stop it, of describing the consequences that are more or less visible in the environment and of proposing certain actions of preventing or counteracting it. We wanted to determine the teachers approach a phenomenon from more perspectives than a single one. They also had the opportunity of transferring the method of analysis and the technique of graphical analysing to their pupils' activities.

Our purpose when choosing this fifth item was to make the teachers differentiate between the two types of questions and to make them aware that in order to answer the questions from the first type, it is sufficient the attentive study of the map, while in order to answer the questions from the second type, previous knowledge had to be activated. The latter requested a superior type of thinking, including critical thinking, creative thinking and the lateral one when constructing varied and complex answers, it implied reasoning, judging and formulating several hypotheses and suppositions.

The purpose of the sixth item was to make the teachers acquire the ability of differentiating between the phases in the development of a phenomenon and of correlating the action of drawing to giving verbal explanations concerning it. While elaborating the text, the teachers were asked to obey the rules related to space, time, conditions, causes, and consequences, already mentioned at item no. 4.

Using the seventh item, we wanted to clarify the following concepts: competence, declarative knowledge, procedural knowledge, and attitudinal knowledge, by exemplifying each of the three. We noticed that some teachers considered that at a young age, the pupils were able to realise only operational objectives, and later on, only in high school were they capable of acquiring competences.

In the eighth item we targeted that the teachers acquire the competence of realising geographical sketches, a practice little used in Romania, except at the university level, but a frequent one in the E.U. states.

For the ninth item we requested the teachers establish for one lesson, a well-balanced number of objectives belonging to the three categories, while covering the entire subject of the lesson. Although the operational objectives had been introduced for a long time in the Romanian pedagogical practice, still, the teachers used them very little, inadequately or targeted especially cognitive operational objectives, ignoring the other two types.

3. Presenting and Interpreting the Results after the Test Had Been Given

In this study we present the teachers' results for the test that they solved at home, guided by the interactive course and by the recommended bibliography. For solving the first item, the teachers referred to sun energy (20), Aeolian energy (15) (example given by teacher I. P. – table 1), tide energy (8), river energy (10), hydrogen energy (1). All the teachers obtained the highest mark.

Table T: Aeolian Energy

Table 1

Advantages	Disadvantages
• inexhaustible	• the installation for producing electric energy occupy great surface
• non-polluting	• the installation for producing electric energy cost much
• abundant	• the obtained electric energy cannot be stocked
• can be converted in electric energy	• variable speed of the wind
• used in wind mills for pumping water in the irrigation systems	• the discontinuity of the windy periods
• used in wind mills for pumping water in the draining systems (Holland)	• the plants must be located in the regions with strong winds, with a great period of manifestation and that have a predominant direction
• used in mills for grinding the cereals	• the propellers produce much noise
	• the propellers jam the radio and TV transmissions

For solving item no. 2, the teachers chose different subjects: rural settlements (23), urban settlements (15) (example given by teacher S. A. – table 2), industrial objectives (6) and tourist objectives (8). We noticed that the teachers had had difficulties in identifying the opportunities and the threats because, in their analyses they had to mention only those coming from the exterior of the analysed space, the internal ones, being treated in the strengths and weaknesses categories. Some of them did not mention any concrete measures for capitalising or counteracting, measures correlated with the strengths and weaknesses, the opportunities and threats identified, but mentioned only several aspects with a general character (e.g. tourist capitalising of an objective, without mentioning explicitly how one could realise that).

For the third item, the teachers chose different themes. Thus, they compared concepts (a small river – râu – / a great river – fluviu – glacier/ice pack, island/peninsula, delta/estuary), hydrographical units (the Rhine/the Danube), mountainous units (the Carpathians/the Alps, the Meridional Carpathians/the Occidental Carpathians), countries (Holland/Belgium, Holland/Luxemburg, Romania/Hungary, Italy/Norway, Romania/France, Italy/Greece, Switzerland/Austria, Brazil/Argentina, Spain/Portugal (example given by teacher B. E-M. – fig. 1), peoples (the Dutch/the Romanians, the Hungarians/the Romanians, the Greek/the Italians). Because for the first tests the number of specific elements and common features was not limited, the teachers elaborated complex diagrams, extended on a A4 format page, and this aspect was positively considered by us.

In using the diagram in the classroom, the teachers noticed that they could limit the number of features introduced in the diagram, depending on the time resource and on the purpose they had in mind (e.g. reflection, evaluation).

SWOT Analysis of Urban Settlements: Cluj-Napoca

Table 2

Strengths	**Capitalising modalities**
1. University centre 2. Hungarians 3. Valuable tourist objectives	1. Spaces for the students' board and lodging, their entertainment, libraries, INTERNET-café etc. 2. Hungarian investment and tourists 3. Promotion by means of the tourist agencies, web-sites, tourist folders etc.
Weaknesses	**Counteracting measures**
1. Little parking space 2. Narrow streets, unarranged streets 3. Beggars, thieves	1. Building up underground or suspended parking lots 2. The building of an underground, arranging the streets 3. The policemen's enforcement of the law
Opportunities	**Capitalising modalities**
1. Foreign tourists 2. Foreign investment 3. Foreign investors	1. Board, lodging and entertainment places 2. Offering certain lots for plants, programmes of work force qualifying 3. Offering certain facilities
Threats	**Counteracting measures**
1. Drug traffickers 2. Traffickers of persons 3. Immigrants	1-2-3. The population announces the police and the prosecutor's office 1-2-3. The intervention of the police for capturing the delinquents

For the fourth item, the teachers represented in the arborescent networks the forming process (genesis) of: the monsoon, the estuary, the delta, the torrent, the landslides, the floods (example given by teacher C. D-A – fig. 2) etc. It was difficult for them to identify the natural and anthropic causes of the phenomena or to differentiate them from the conditions in which they take place; therefore, some of the schemes were wrong. Referring to the period of time, most of them did not specify clearly the duration, the frequency, the moment when that phenomenon took place. The development of the phenomena was not presented in logical succession, according to the different phases of the process.

For the fifth item, the teachers formulated questions referring to the *World Physical Map* (example given by teacher J. N. – table 3), *Romania's Physical Map, World Political Map, Europe's Physical Map, Map of Romania's Waters, Map of the Meridional Carpathians, Black Sea Map* etc. In the category of the first questions, the teachers included the ones with a general character: *Which is the title of the map? Which are the conventional signs included in the legend of the map?* For the questions that needed interpretation, the teachers formulated predominantly questions referring to the causes of some aspects identified on the maps and to the consequences of some elements extant in the geographical space.

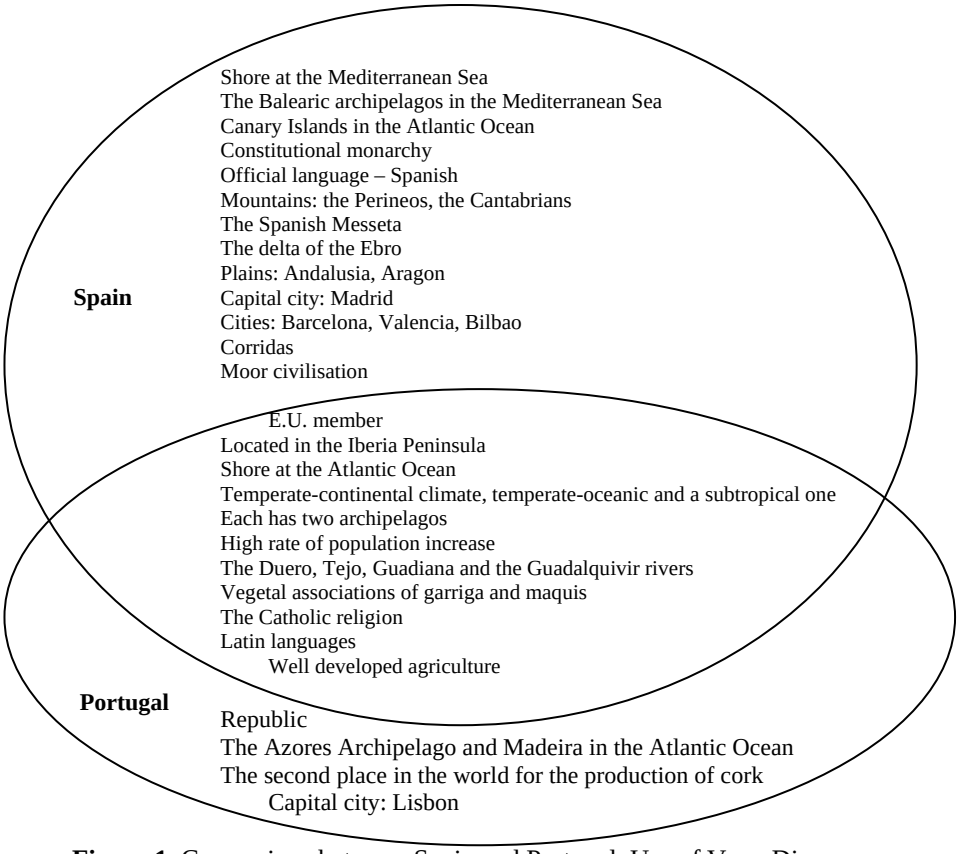

Figure 1. Comparison between Spain and Portugal. Use of Venn Diagram.

Asking Questions Targeting Analysis and Questions Targeting Interpretation

Table 3

Questions that targeted analysis:
- Which are the European rivers that flow into the Atlantic Ocean?
- Which are the European peninsulas?
- Through which cities flows the Danube?
- Which are the largest lakes of North America
- Which are Europe's neighbouring seas?
Questions that targeted interpretation:
- What is the influence of the North Atlantic Current on the climate of Western Europe?
- What is your explanation for the different extension of the ice pack, in latitude, in the north of the Atlantic Ocean?
- What is the influence of the mountainous ranges orientation on the north-south direction, in North America?
- What are the consequences of the fact that the rivers in Siberia flow to the north?
- What is the cause for the Iberian Rivers (from the Iberian Peninsula) of forming estuaries when flowing into the Atlantic Ocean, and deltas when flowing into the Mediterranean Sea?

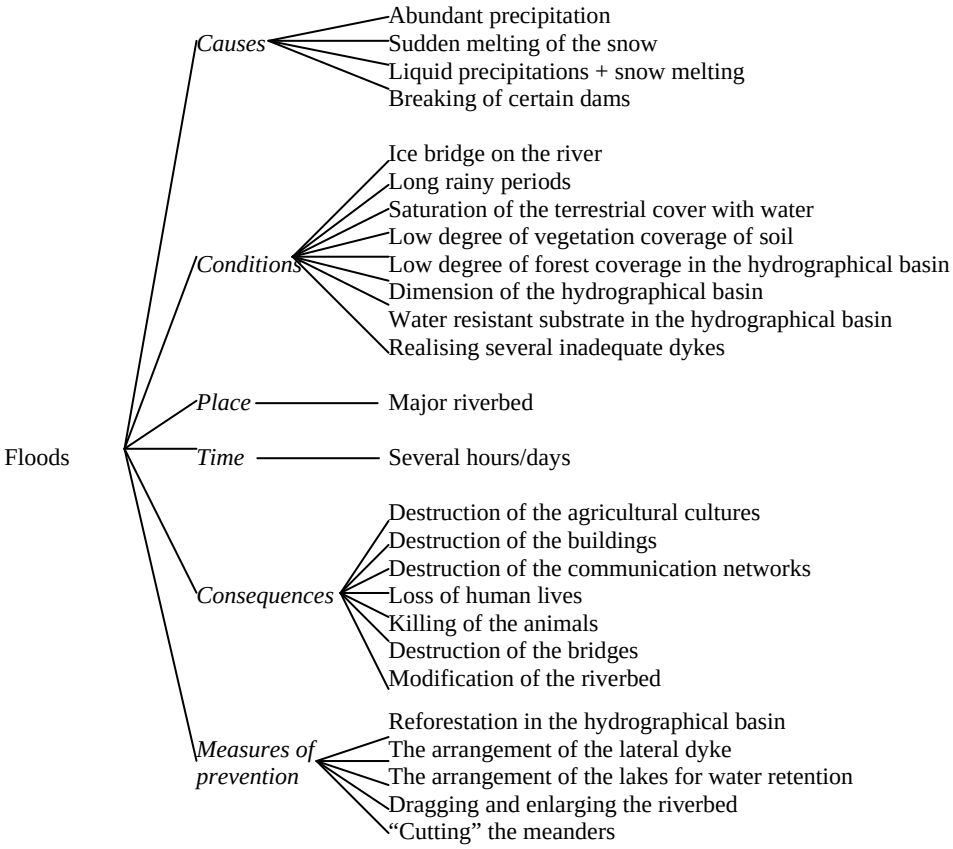

Figure 2. The flood. Use of the Arborescent Network

Item six consisted in asking the teachers to represent by means of drawing, the forming process of the: icebergs, the lagoons, the endokarst, the marine breezes, the föehn etc. Even if the drawings are adequately realised (fig. 3), the explanations are often incomplete, incoherent and they even contain errors (example given by teacher P. C. – table 4).

We noticed that some of the teachers had wrong conceptions taken from the textbooks: for example, they considered that, during summer, the air was colder above the Indian Ocean than the one above Asia, when, in fact, it was less warm; that the monsoons formed only between the Indian Ocean and Asia, when, in fact they appeared, but less developed, in Africa and South America, too.

For item no. 7, the teachers approached different competences: the elaboration of the hypsometric maps; orientation guided by the compass; drawing up a column diagram; the elaboration of a project of geographical space arrangement; the elaboration of a logical scheme etc. The teachers differentiated correctly between the three types of knowledge and they correlated them adequately with the three types of operational objectives (example given by teacher I-P. L. – table 5).

The Forming of the Monsoon

Table 4

"The forming of the summer monsoon:

In summer time, the terrestrial cover of Asia warms up suddenly and it also warms up the air above it, which rises creating thus a centre of minimum pressure. The air above the Indian Ocean is a warm and moist one; therefore the air pressure grows greater and greater. Due to these differences of pressure between the ocean and the continent, the air moves from the great pressure zone, situated above the Indian Ocean, to the low pressure one situated above Asia, forming thus the summer monsoon. The monsoon develops from April to October, causing great rainfall. These "monsoon rains" determine the increase in the flow of the rivers, floods included.

The forming of the winter monsoon:

In wintertime, the terrestrial cover of Asia cools quickly and significantly, determining the cooling of the air above and the formation of maximum pressure centre. Above the Indian Ocean, a minimum pressure centre forms caused by its warm water. The air masses move from the maximum centre pressure on the continent to the minimum pressure one above the ocean, thus forming the winter monsoon. This monsoon that blows from October to April is a dry one, determining thus a droughty season in the centre of Asia. When the monsoon direction changes, significant storms take place.

In conclusion, the monsoons are periodic winds that blow from the ocean to the continent in summer time, and in winter, in the opposite direction, crossing the Equator."

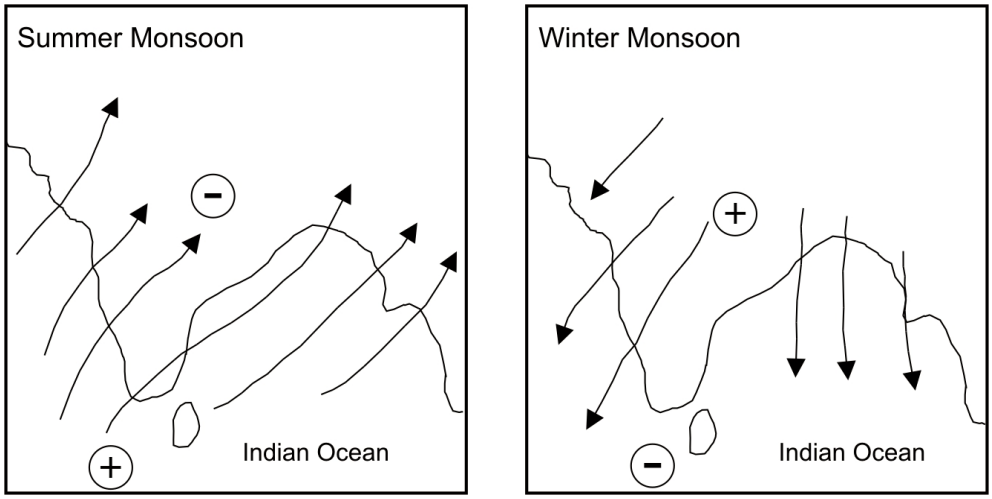

Figure 3. The Forming of the Summer and Winter Monsoon

The Competence of Measuring the Air Temperature with the Thermometers

Table 5

Declarative knowledge	**Cognitive objectives**
- The components of the ordinary thermometer, of that for the minimum and maximum temperature; - The conditions to store the thermometers: in the meteorological shelter; they should not be exposed to sunlight; they should not be in the neighbourhood of any buildings.	- The pupils describe the components of a thermometer; - The pupils identify the common features and the differences between the three types of thermometers; - The pupils enumerate the conditions that should be taken into account when posting the thermometers in order to measure correctly the temperature of the air.
Procedural knowledge	**Methodological objectives**
- The stages of the reading procedure of the thermometers: taking the thermometer from the support, seizing it by its central part; the reading; shaking the thermometer after the reading has been done; placing the thermometers on their support (the one for the minimum temperature in a horizontal position, that for measuring the maximum temperature with an inclination of 2º).	- The pupils identify the ordinary thermometer, that for the minimum and maximum temperature; - The pupils identify the temperature shown by the three thermometers; - The pupils place the thermometers on their support after the reading has been done and shake them.
Attitudinal knowledge	**Attitudinal objectives**
- Manifesting wish, will and precision while measuring the air temperature.	- The pupils are attentive while handling the thermometers so that they do not brake them; - The pupils follow correctly the procedures of reading the temperature; - The pupils do not falsify the result of their measurement.

For item no. 8, the teachers had difficulties, especially in formulating several operational objectives that integrated more objectives in order to cover thoroughly the approached subject example given by teacher I. J. – table 6). For several lessons, they formulated methodological operational objectives having a general character: elaborating the lesson scheme; the pupils should point correctly on the map etc. For other lessons, the adequate attitudinal operational objectives were not identified.

For the ninth item, the teachers had the greatest difficulties because they did not have the competence of drawing up geographical sketches. The teachers realised different types of maps. Therefore, during the next formation stages, this subject will be thoroughly detailed from a theoretical and methodological point of view.

Cognitive, Methodological and Attitudinal Operational Objectives in the Lesson "Atmosphere – General Characteristics"

Table 6

"A) *Cognitive operational objectives.* During this lesson, the pupils should be capable of: - Using correctly the following concepts "atmosphere", "density", "pressure" when answering to the teacher's questions - Explaining the features of the atmosphere (the form, the mass, colour, temperature, pressure, density, chemical composition, stratification) having as a support the drawings on the blackboard and in their notebooks - Giving arguments to support the importance of the atmosphere for the terrestrial environment while discussing this in small groups B) *Methodological (procedural) operational objectives.* During this lesson, the pupils should be capable of: - Analysing the vertical structure of the atmosphere having as a support a schematic drawing - Drawing up a square diagram with the chemical composition of the atmosphere, after the teacher has presented the procedure - Structuring the information in a cluster, following the model on the blackboard C) *Attitudinal operational objectives.* During this lesson, the pupils should be capable of: - Drawing up the cluster, the diagram and elaborating the scheme from the blackboard quickly, orderly (tidy) and placing all these adequately in the page".

4. Conclusions

We present the items and the result of the test applied to the course *Didactics of Geography* held during the continuous formation programme "Magister I", organised in 2004 by the Department for the Training of the Didactic Personnel, "Babeş-Bolyai" University. The nine items – each was quoted one point – focused on the formative evaluation and verifying of the course objectives by the teachers themselves: using the techniques of graphical organising of the information that they might later apply in their didactic activity; using the specific research methods of Geography; using the specific research methods of Geography; using certain techniques that developed the abilities of thinking and creativity specific to the pupils; using diverse techniques of evaluation. For testing, we used RWCT (Reading and Writing for Critical Thinking) techniques, in order to stimulate the teachers' creativity, to develop their capacity of analysing, comparing, synthesising, graphical organising of the information, of reflection etc. The evaluation techniques we used were table T, the Venn diagram, the SWOT analysis, the arborescent scheme, formulating questions etc.

After analysing all the items from the teachers' tests, we reached the following significant conclusions:

- Having in view the answers given by the teachers, we considered that the objectives of the course were realised.
- The used techniques in constructing the items, which had been usually used only in teaching and learning, were very adequate for evaluation. For an

objective evaluation of each item, we specified the number of answers necessary in order to obtain the allocated points.

- The used techniques in constructing the items were valuable because they stimulated the teachers' creativity, developed their thinking capacities in general and those of critical and lateral thinking especially, and developed their competence of graphically organising the information.
- During the course, we noticed that, for the teachers, the solving of the test was a new and interesting challenge, and the evaluation of the papers offered us professional satisfaction.

Appendix A

Test Items

1. Choose a source of inexhaustible energy. Complete in *table T* (Steele, Meredith, Temple, 2000, p. 31, Dulamă, 2002, p. 120, Bernat, 2003, p. 168) five arguments for and another five against the anthropic use of this type of energy.

2. Realise a SWOT analysis (Vincze, 2000, Dulamă, 2004b, p. 60-65, Dulamă, Ilovan, p. 229-230, 2004) of a locality, of an industrial or a tourist objective. Specify three strengths, three weaknesses, three opportunities and three threats. Mention the measures of counteracting the weaknesses and the threats and the ways of capitalising the strengths and the opportunities.

3. Complete a *Venn diagram* (Dulamă, 2002, p. 160) where you have to mention three specific features and three common ones, at will, of: two countries, two peoples, and two units of relief or two hydrographical entities.

4. Choose a geographical phenomenon, physical or socio-economic one. Elaborate an *arborescent scheme* (Dulamă, 2004c, p. 115, p. 118) where to specify: its causes, its conditions of existence, its development in certain phases, where it takes place, the time, the consequences of the phenomenon and measures of preventing/counteracting it.

5. Choose a type of map. Formulate five questions that focus on analysis (Dulamă, 2004a, p. 58) and five questions that focus on interpreting the respective map.

6. Represent by means of a drawing, two phases of a geographical phenomenon. Mention for each one, the explanation that you offer to the pupils at the same time when drawing it.

7. Choose a competence (Dulamă, 2004c, p. 104). Specify in a table the declarative knowledge, the necessary procedures and attitudes for realising the respective competence.

8. Elaborate a geographical sketch related to the locality or the region where you come from.

9. Choose a lesson. Formulate two cognitive operational objectives, two methodological operational ones and an attitudinal operational one (Dulamă, 2004c, p. 105), so that the pupils can acquire all the essential pieces of information from the respective theme, at the end of the lesson.

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TWISTED ELEMENTS IN SELF EVALUATION AND IN DIDACTIC EVALUATION

CRISTIAN STAN

ABSTRACT. Both self evaluation and didactic evaluation took place under the sign of a permanent swinging between objectivity and subjectivity We intend, during this article, to approach, on a comparative manner, the problem of the docimologic step undertook both at student and at teacher's level, being knew the fact that the self evaluation and evaluation relation receive consistence and functionality only in the conditions in which both components drew near the objectivity demand. Continuing the idea, we will make some conceptual explanations regarding the availability, the fidelity and the docimologic relevance, extracting the main connotations at the didactic self evaluation and evaluation level. A main place in whole economy of the present recrudescent normally, to the value of objectivity of self evaluation and evaluation as didactic processes of deliberative nature, without neglecting in this context, the limitations involved by the exclusive focus on subjects efforts on this aspect. We will refer, in this context to the factors with twisted action on self evaluation and didactic evaluation, factors, according to genesis and specific manifested by them in docimologic plan, we will group them in two distinct categories: errors and twisted errors.

Specialty literature dedicated ample spaces of objectivity issue for didactic evaluation and their implications on unrolling the process of instructing and educating as a whole. A more diminished attention received the objectivity of student self evaluation step. From these reasons, we intend to approach next the objectivity and the subjectivity not only in the particular context of didactic evaluation and in self evaluation too, realized by students. We consider, as it follows, the fact that treating this problem globally and integrative is capable to conduct to the revelation of one concrete solution both on regarding the increasing of objectivity degree of appreciative steps specified and also process.

The starting point in approaching objectivity of self evaluation and didactic evaluation, is represented by the fact that both are deliberative processes which aim at signifying and interpreting scholar performances.

These two components cannot be objectifying jet, without measuring sequence, respective of reporting scholar performance at some criteria. This fact determines us to consider this last component as fundamental element in assuring objective character of self-evaluation and didactic evaluation. Continuing this idea, without falling in the trap of a superficial reductionism, we will start from the idea that, at last, both self-evaluation and didactic evaluation aim at measuring the degree of proximity for scholar performance reported to some standards, sequences of signification and interpretation being situated after this moment.

So, the problem of objectifying the appreciative steps, indifferently if these steps are realized at teacher level or at student level, must be putted especially from a measuring perspective, fact which revels the need to reunite in the same time and on the same report three principle premises:

a. Docimologic availability
b. Docimologic fidelity
c. Docimologic relcatlessness

Docimologic availability The availability of each instrument of measuring, is established in general terms according to the degree in which they measure well, what they propose to realize and what they pretend to measure.

Starting from this finding, we can say that docimologic availability of self-evaluation and didactic evaluation, is in fact, the expression of concordance between the results obtained as an effect of using these findings and the real level of the school performance for students.

The docimologic validity imposes, both at self-evaluation and didactic evaluation the correlated manifestation for the next types of docimologic availability, content availability, criteria availability and conceptual availability. (adjusted after M.B. Schweitzer, 1991).

Content availability intends the fact, that an appreciative step, with any nature, must be based on techniques of verifying, which covers the whole register of competencies and of school performances (cognitive performances, affective and motivational and behavioral).

The criteria validity refers to the necessity to correlate the dimensions of performances ascertained at student level, dimensions reveled through self evaluation and didactic evaluation at docimologic science with quality manifested especially with the quality of manifesting in exterior situations, in examination conditions with scholar task.

In this sense, both choosing variable and multiple criteria and inner correlation of them are essential for assuring the internal and external consistence of any evaluative and self-evaluative step.

The conceptual availability aims the possibility to construct, on the base of ascertaining the self-evaluating and evaluating school performances and the relations between them, of a theoretic discourse, which evaluates from describing performances to applying basic processes (L.J. Cronbach, 1984).

Docimologic fidelity. The term: fidelity designates, generally, the agreement and the establishing waited at analog measures and supposes currently the repeated comparison of results sets. (I. Radu, 1993).

The docimologic fidelity refers to the dimension of the variability appeared for a repeated self-evaluation and didactic evaluation. We consider it necessary in this context. The distinction is between the docimologic external fidelity and internal docimologic fidelity.

The external docimologic fidelity considers the individual variances registered at the self-evaluative step of the student and of the didactic evaluation realized by the teacher. We refer, in this senses at the differences appeared in time and inside one evaluative and self-evaluative step.

The external docimologic aims not to individual internal variation of self-evaluation and of didactic evaluation but to external variation manifested at relational couple level.

Synthesizing what I have said before, the internal docimologic fidelity explains the particular variations appeared regarding the evaluation way or student self evaluation between two moments in time, when external docimologic fidelity refers at the time evolution of the correlation existent at couple level of self evaluation and didactic evaluation.

The internal and external fidelity, both have a particular temporal development. The variations registered at the internal variation levels of evaluative level reflect the school progress or regress registered by a student at one subject and is absolutely normal.

Important, viewed from the consistence of relations between self evaluation and -evaluation is, on one side, as these variations to be consumed and at the level of internal fidelity from self evaluative level and on the other side external fidelity to know minimum variations.

c. The docimologic relentlessness. The sociologic relentlessness referees to the relations from the evaluation/self evaluation relations and the tactics involved in this senses, respective at the measure in which evaluation and self evaluation from their content and realization way, are capable to offer to the pupil and to the professor a plus of knowledge not redundant regarding the level and the possibilities of optimizing the educational-training process.

The docimologic relentlessness supposes the convergent action from two categories of conditions: internal and external. The external conditions refer at the double aspect of docimologic validity and fidelity and internal conditions suppose the existence at student level and of teacher level of some interpretative abilities regarding the results obtained after the self-evaluative and evaluative step. We want to specify in this context, the fact that didactic self-evaluation evens if it is not realistic, cam bring useful information for a trained external observer.

Approaching the objectivity problem from self-evaluation and didactic evaluation asks some questions for the researcher, both at the concept level and at the methodological level. Starting point in treating this theme is constructed from the specification and the conceptual delimitation of term "objectivity".

The greater part of the specialists from the field agrees to the fact that an appreciation, without specifying its nature, is objective since it reflects non twisted its object and is independent regarding the opinions, the personal ideas or state of mind of the subjects are involved in its realization.

The starting premises in approaching the report objective-subjective in self-evaluation and didactic evaluation relations are the fact that a self-evaluation and a didactic evaluation absolutely objective and totally impersonal is a utopia. The base of on this affirmation is the fact that both pupils and teachers are human subjects engaged in self-evaluative activity, respectively evaluative, together with the attitudes and motivational system, with the whole personality.

So, a self evaluation and not a subjective evaluation is not just impossible, because it will involve, in fact, authors exclusion, less significant and relevant as a self evaluative step which involves in a subjective way, the values and the attitudes of the persons who evaluates and self evaluates themselves. (Voiculescu, E.M., 1999).

Approaching the objectivity problem at self-evaluation and didactic evaluation level, we consider necessary the following explanations:

a. Self evaluation and didactic evaluation are not activities with an inside value, and their importance stands in the effects on student's personality formation, on school progress and on educational process efficiency,
b. Self evaluation objectivity and didactic evaluation, considering the fact that both the examiner and the examinee person are human subjects, is always a relative one, not absolute,
c. Subjectivity, understood as personalizing the self evaluation and didactic evaluation step, it is not necessary as negative aspect, the psycho pedagogic value of this two activities includes to turn account the cognitive and attitudes valences of the authors;
d. The attributes "objective" and "subjective" identifying themselves many times with external and internal fact, reported with school performance evaluated by concept not only relative but in greater part dependant from the perspective from which those are perceived; so, the student considers the evaluation being objective even if it is an external fact which is independent from its own will,

A plus of knowledge is not redundant regarding the level and the possibilities of optimizing the educational-training process.

a. The attribute "objective" designates only an external reality and an independent reality reported to the pupil, author of effective school performance or with examiner teacher, but also refers at the way in which, this reality is perceived and accurate inside included, detached and at equal distances from the others;
b. At the level of relation of self evaluation and evaluation in didactic act between objectivity and subjectivity, not simple an antagonistic report is established but especially complementary relations, the objectivity means, in fact, a balance of subjectivity twisted dimensions, subjectivity is a way of putting inside objective data;

The self evaluation and evaluation relation is an insuperable element of pedagogic interaction between pupil and teacher and reflects, more or less their subjectivity. From this reason, absolute objectivity of this relation is not possible

but a pupil-teacher relation, which is totally objective, and without any trace of subjectivity, it is not a desirable relation.

Our statement is based on the fact that, on one side, a series of inherent aspects of school performance, for example, the altitude and the motivation aspects, cannot be quantified, and on the other side, ascertaining the evidence of the fact that educational and training process is a relation between subjectivism.

At self evaluation and evaluation level relation in didactic act, manifest inclusive a dynamic of objectivity and subjectivity, the researches aimed to this aspect and following not only the dissociation and the opposition between objective and subjective factors and also the deceleration of specific contribution of each factors.

This fact leads to the conclusion that the efforts of improving self evaluation and didactic evaluation must not be focused on assuring absolutely objective and impersonal steps and also increasing the possibility to control and subjective self control of elements with a twisted action on self evaluative element of the pupil and with didactic evaluation realized by the teacher.

Another distinction considered necessary in this context is the one from subjectivity and objectivity. If subjectivity is an inner element of self-evaluation and evaluation relation as human relation, with signification not especially negative, the subjectivity represented, in our opinion, by the whole consequences and manifestations with totally twisted effects on self-evaluation and didactic evaluation.

These twisted elements, according with the measure in which, are deliberately or not, can be: unwittingly and purposeful. We want to make in this context two specifications: the category of unwittingly twisted elements knows the bigger frequency, both at pupil and at teacher level, and the purposeful twisted elements are teachers.

Unwittingly twisted elements includes aspects such as: precarious volume of data, on behalf of what we realize the evaluation and the self evaluation, a non congruently docimologic repertory from pupil and teacher, an insufficient adjustment of tactics and criteria at evaluation and self evaluation, not direct, and also psycho social influences. (pupil scholar situation or pupil's family social situation).

Purposed twisted elements are grouping near two main factors: a pupil or a group of pupils the desire to use didactic evaluation and their intention to favor or not to favor., on other criteria than pedagogic criteria.

From these elements, we can consider, that optimizing the relations self evaluation and evaluation in didactic act can be realized from two points of view:

1. the view of assuring objectivity in self evaluation and evaluation, avoiding transforming self evaluation and didactic evaluation in statistical and accountancy appraisals,
2. the view of controlling and of self control of subjective elements action when they manifest not an contribution to docimologic significance or relevance but also as misrepresentation of correctness of evaluative and self evaluative step.

Twisted elements problems in didactic evaluation were treated in specialty literature but at least the self-evaluation twisted elements problems were treated less.

This chapter is dedicated to presenting and analyzing in a comparative manner the main twisted action elements on self evaluation and evaluation and implicit on relations between two steps and exposing the ways of fighting them.

According to the nature and to the specific of their action, the twisted elements of didactic evaluation and self evaluation were was grouped in two distinct categories:

a) procedure errors (instrumental error, global inclusion error, global framing error, succession error);
b) parasitical effects (anticipation effect, habit effect, personal effect);

a. Procedure errors refer especially to those categories of twisted factors which are linked to technical conditions, on one side, and are linked to concrete educational context, on the other side, in which the unrolling of two processes take place.

Analyzing this category of factors, we distinguish, as we had specified before, the existence of three fundamental types of procedure errors:

1. instrumental error;
2. global framing error;
3. succession error;

Before presenting these errors we want to specify the fact that their action at educational reality level is a concerted one, the self evaluation and evaluation relation being twisted both at technical conditions level to realize self evaluation and didactic evaluation and at educational context in which they carry on.

1. Instrumental error. Instrumental error refers at the twisted aspects at self-evaluation and evaluation relations, which are due to inadvertence or inconsequent elements in organizing and carrying on the two processes, specified before.

We mentioned, in this error sources, both determined by the phenomena of temporal substitution: essential objectives of evaluation are replaced in time with secondary objectives and secondary criteria can took the place of main criteria or are inadequacy immix with main criteria.

So, for example, both the pupil and the teacher can be, from reasons more or less justified, in the situation of replacing the main objectives and criteria of self evaluation and of objective evaluation with objectives and criteria quickly elaborated, not adequate to self evaluation tactics and initial evaluation.

The teacher can be tempted to guide the evaluation step according to some secondary aspects or only correlatively evaluation principle objectives, such as accuracy, systemic or fluency of pupil answer, and the last one can be considered fundamental criteria in self evaluation, the effort for repairing the lesson. (Cucoş, C., 1996).

We want to mention in this context, the fact that considering in self evaluation and didactic evaluation of some aspects, mentioned before, are not errors but they become errors when are not sufficient correlated with the objectives and the criteria established as being essential for two unrolling steps.

2. Global framing error. Global framing error, known in specialty literature as, "halo effect" refers to the appreciation and the significance of effective school performance by going over to another more complex idea and correlating it with pupil school performances. So, both the pupil and the teacher have the tendency to reasoning to effective school performance and to a series of factors from educational environment.

We refer, to the fact, that, for example, the pupil's mark from those subject or from other subjects are sometimes important appreciation criteria for self-evaluation and didactic evaluation. Global framing phenomenon, even if it is the same for teacher and for pupil, knows educational subjects level and manifestation forms are different.

The pupil makes itself evaluation starting almost without exceptions from self-image and the self-evaluation of a school success is constructed on this self-image. ("I, and I am a good student, consider that …..").

The teacher, intend to appreciate the pupil scholar success according to pupil's mark, marks already received or according to pupil's marks to other subjects.

Global framing error risks to include the pupil in a vicious circle, his image depending in a greater part by teacher's evaluation, evaluation determined by previous evaluations, so the reflected level of school performance in marks or in qualifications become susceptible to express the school progress or regress.

3. Succession error. Succession error or contrast error manifests as a result of a mutual emphasis of two school performances of different levels. So, a very good answer can make a wrong answer coming letter, seem weaker that it is and a good answer following a wrong answer seems better than it is.

Succession error manifest as a tendency at teachers level, as often as being unwillingly, of transforming the comparison of consecutive school performances for a more objective evaluation and more adequate to educational reality in a balancing element, often twisted, of appreciating school performances.

The reasoning type used by teacher here, is one of interfering nature, fact that leads to a twisted didactic evaluation either in proactive senses or in compensating senses:

- proactive twisting is due to the fact that, for example, as we had said before, a not very good answer following to a very good answer, seem weaker for the teacher than it is ;
- compensating twisting produces in the conditions in which teachers see on pupil's school performances, the inaccuracy of evaluation school performance of the pupil which answered before, but because he cannot correct it, he will twist the reality, to keep the current evaluated school performance;

We want to emphasize in this context the fact that succession error is manifested in teacher's case both in verbal and written answers, but the student is exposed to this error only in a verbal answers case.

The pupil, is influenced on his turn regarding his evaluative step by constant level of scholar results of the classmate which responded before him, but this twisted element manifest only proactive and in verbal answers case. If global framing error manifest especially for very good pupils or pupils with low performances, the succession error manifest especially in the case of middle level pupil, consider the comparison with pupils with very low performances or pupils with very high performances.

a. Twisting self evaluation and didactic evaluation it is not due to procedural errors presented before but also to the action of parasitical effects, with latent action, which by their specific nature spoils the quality of two processes.

The main parasitical effects which manifest negative on self evaluation and didactic evaluation are:

a. Habit effect;
b. Anticipation effect;
c. Personal mark effect,

a. Habit effect. Habit effect refers to the fact that both pupil and teacher demonstrate a certain inertia in self evaluation and in scholar performance evaluation, inertia materialized in the fact that, in both self evaluation and didactic evaluation of the pupil have their origins in personal expectancies regarding the performance level than the real school situation.

So, school performance is analyzed and treated almost superficial by pupil and by teacher, the appreciation steps being guided in a greater part by the manner of realizing self evaluation and previous evaluations not only the evaluations from immediate school reality.

Habit effect supposes from pupil and teacher part a type of appreciated accordance, due to the idea that school performance level does not know spectacular improvements on short term.

We want to mentioned in this context the fact that habit effect generates the tendency to preserve in time some school appreciation (qualification or mark), especially in the sense of restricting the deviation in ascending direction, restricted action, the descending action being less obvious.

Otherwise, the pupil and the teacher create the appreciation at a certain level of school performances, accepted as relevant and fair, the positive deviations being considered accidental or considered appreciation errors. Negative deviations are easier accepted by pupil and by teacher and are considered due to school preparation deficiencies.

b. Anticipation effect. Anticipation effect act on self-evaluation and didactic evaluation in a similar manner with habit error. Many times, these two effects had been identified and superposed under the generic name: Oedipus effect of predicting. Analyzing the manner in which this effect manifests, we have seen the existence of two effects, almost similar effects but distinct effects: habit effect, explained before and anticipation effect..

The major problem here does not stand in foretelling step itself but in the fact that the authors of educational act manifest the tendency, more or less conscious, to self validate their own anticipations.

So, a pupil, which expects the effective scholar performance level, will be at a certain level and will have the involuntary tendency to harmonize the school results with this anticipation, justifying the prophecy theory fulfilled and to give credibility to its own predictions.

The deviations from the predictions are not accepted just being the result of an insufficient self-knowledge, and they are attributed to external circumstances reunited under the generic name of luck, for positive deviations from the prediction or no chance in the situation of negative deviations.

Predicting effect knows a way to manifest almost similar in teacher's case. The capacity to make valid predictions is considered, by the teacher, a measure for its own capacity of knowing the pupils and the professional deviations which are many times considered professional failures.

So, for a prediction such as "X is a good student and its answer will be also a good answer" the teacher will try involuntary to confirm the prediction, being extremely receptive to the right answers and he does not want to observe the possible omissions and inadvertence. The phenomenon manifests identically in the situation of a prediction such as "X is a low level student, so his answer will be a low level answer, too", case in which teacher's receptivity will focus on student's mistake, the positive answers will be considered somewhat accidental and collateral.

c. Personal mark effect. Personal mark effect or personal equation, how it is also named, accompany permanently the self-evaluation and evaluation step of the teacher, being practically the background on which, the other errors manifest. The personal mark effect has a residual influence on self-evaluation and didactic evaluation, generating during the time, appreciative deviations according to real level effective school performance.

The effect of personal mark refers to the fact that both pupil and teacher are, by their nature, inclined towards either exigency and austerity and either buoyancy in appreciation and indulgence.

So, the exigency is concreted in the educational action of subjects to take as reference point the maximum level of potential performance, the accent being on the distance which decides the pupil from this level, while the indulgence manifests predisposition toward the consideration not the distance from the pupil and the maximum performance but also the pupil's effort to get to a certain performance.

The self-evaluation indulgence identify often with pupil's tendency to make concessions, to consider the scholar failures accidental and irrelevant according to its own value. Here, the pupil takes references for its self-evaluation step, the failure being omissible. The learning effort is focused on assuring scholar success.

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The self-evaluation indulgence identify often with pupil's tendency to make concessions, to consider the scholar failures as accidental and irrelevant according to its own value. Here, the pupil takes references for its self-evaluation step, the failure being omissible. The learning effort is focused on assuring scholar success. The self-evaluation exigencies are materialized in pupil's desire to give a bigger importance to scholar failure in relation with successes. Scholar failure represents for this category of students the main references of self-evaluative step, the learning effort being, here centered on eliminating scholar failure.

The appreciative generosity materializes at teacher's level in focusing on marks or qualifications of superior level from effective school performance. This

fact is often determined by teacher supposition that an attitude like this can encourage the pupil and his learning effort.

In opposition with the appreciative generosity, the teacher exigencies are materialized on his predisposition to give marks and qualifications inferior to the effective level of pupil's performance and consider that bad marks motivate pupils to learn harder. As we mentioned before, the twisted factors action for self-evaluation and didactic evaluation, even if they are procedure errors or sponger effects, are concerted. Those factors receive some twisted factors determined by teachers's or pupil's the state of mind or teacher's and pupil's the state of fatigue.

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QUALITY AND COMPETITIVITY OF TEACHING IN HIGHER EDUCATION

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ABSTRACT. In the recent years, research on teaching at the postsecondary level has expanded rapidly. The growing interest in teaching is justified because of the reconsideration of its role and its importance in the structure of the academic activity. In this way, there is an acute requirement for research programs focused on faculty development and quality assurance of teaching in Romanian universities for several reasons: to sustain the progress of research on teaching in higher education at national and international level; to develop a romanian culture for teaching in higher education; to guarantee for the international compatibility of romanian universitary teaching activity, in order to respond to the stipulation of the Bologna Declaration; the main part of faculties in Romanian universities do not have a proper qualification to teach at postsecondary level.In this context, a programme focused on teaching development has two major components: a) the assessment of teaching and b) the improvement of teaching through faculty development programs. Using specific instruments, assessment informs teachers, administrators and students about the quality of teaching activity. Faculty development programmes are aimed at the interpretation and use of the assessment results for teaching improvement purposes.

The radical and dynamical changes that characterize the modern society are being seen in the educational area as well. A series of factors such as globalisation, the impact of informational and communicational technologies, and the knowledge management seriously affect the educational environment and the development of the educational paradigms. At the university level, the change takes place by passing from a teaching centred education to a learning centred education. A learning centred education involves a student focused teaching, and it implies radical changes of the professor's role (organizes and conducts the teaching situations), redefining the educational objectives (by making them more transparent and dynamic), applying changes in the teaching – learning - evaluation methodology, varying the organizing forms of teaching and learning, as well as conducting a curricular flexibility. Thus, in the context of educational reform, the teaching activity gets a particular meaning, and acknowledging and rewarding the university teachers' performance will consider both the knowledge discovering as well as the activities of integrating, applying and teaching these knowledge.

Both the number and the diversity of the research on teaching in higher education have considerably increased in the last decade. The heightened interest given to teaching at this level is due mainly to reconsidering it's role and importance in the structure of academic activities. The teaching activity (teaching and the afferent activities – class preparation, student evaluation, consultations, teaching improving activities etc.) takes about 50% of the time of a university instructor (Smith, 1991; Hiebert, Gallimore & Stigler, 2002). Also, it is widely known the fact that the increase in the number of students in a class/ group has, as an immediate effect, a reduction in the value of the modal student, which involves a more sustained teaching effort than with an elite teaching system (Boyer, 1990). Studies show that the satisfaction of the faculty depends more on the relations with the students than on their own publications (Centra, 1993), and the reproduction and perpetuation of advanced research competencies is being done in the teaching halls (Boyer, 1997; Kincheloe, 2003). In the same way, the Special Report of the Carnegie Foundation for the Advancement of Teaching elaborated on a multinational (14 countries) study between 1991 – 1992, establishes the fact that more than 63% of the interviewed university instructors see the teaching activity and the concern for improvement as being extremely important for their professional development (apud Menges & Austin, 2001).

On the other hand, the teaching activity is seen as a major source of professional stress. In a study made in the American universities, Gmelch, Wilke and Lovrich (1996) have identified the main sources of academic stress: - a) "acknowledgement and rewarding", which refers to the insufficient payment of the teaching activity in higher education; b) "time pressure", regarding the scanty time for preparing the teaching activities; c) "department linked influences", such as the lack of information concerning the way that the head of department is evaluating the professors' performances; d) "interaction with the students", (the presentations in front of the students, evaluating their performances, as well as the course evaluation by the students); e) "professional identity", that refers to the very high expectancies that the instructors have for themselves concerning their work. Knowing all these stressors and applying institutional measures to counteract the stress effects, certainly has a positive impact on increasing the performance of the faculty from that particular institution.

Seeing the importance that the teaching activity has both at a personal and at a institutional level, we believe it is fully justified the spectacular increase in the number of studies on teaching in higher education. The research conducted in this area can be grouped into four main categories (Menges & Austin, 2001): a) studies regarding the faculty as **teaching instructors** (professors with teaching tasks), b) studies centred on **those who learn**, meaning the students, c) studies on the teaching – learning **content**, d) studies focused on the environment where the teaching and learning takes place, including the research on various teaching methods. From all these, the greatest impact on the development of the area practise is given by the

studies regarding the teaching – learning environment, because here we can find the intersecting point of the studies from the other three categories prior mentioned. Within these studies, when describing the educational environment, the researchers simultaneously consider the instructors, the students, the content, the methods and the relations among them.

Widely discused in the literature are the studies concerning the ways to evaluate and develop the teaching competencies of the universitary professors (see category a). In this matter, the authors have elaborated and implemented in the universities various models of professional development and made subject to discussion multiple strategies for teaching improvement. It is worth mentioning the studies of Centra (1993), Paulsen and Feldman (1995), Menges (1997), Martin and Lueckenhausen (2005). They all plead for creating a supportive teaching culture. Such an institutional culture is being characterized by: clear institutional strategies through which the teaching activity is being capitalized, and the teaching performances are properly rewarded; proper procedures for evaluating the teaching activity; appropriate resources (for information and training) for professional optimisation. In other words, any institution of higher education must develop coherent evaluation and staff development programs in order to ensure the quality of the teaching staff (Opre, 2005).

In Romania, the problem of teaching activity in higher education is an insufficient explored or even unexplored area. We thus mention a couple of studies initated by groups of professors from the universitary centers of Cluj Napoca, Iasi, Bucharest – "Academic Evaluation" (Miclea & Opre, 2002), "The New Higher Education Paradigm - Client Centered Paradigm" (coord. Bernat & Chis, 2003), "Higher Education" (Vintanu, 2001). Through their conclusions, all these studies ermly maintain the need for developing a Romanian culture for teaching in higher education, offering at the same time a solid theoretical substantiation in the area. Continuing these reasearch would certainly have a major impact on the development of postsecondary teaching practicum both at a national and international level.

Starting from this premise, we believe that the development of particular programs that intend to form and develop the teaching competencies of the teaching staff in the romanian universities and, implicitly, to increase the quality of the faculty becomes a stringent need at least for the following reasons:

- assures the progress of the research in the area of teaching in higher education both at a national and international level
- contributes to creating a teaching culture in the romanian universities
- ensures the international compatibility of the teaching activity developed in Romanian universities, thus responding to one of the purposes from the Bologna Declaration, meaning the faculty quality assurance

- concerning the romanian higher education teaching, most of the teachers have never benefit, formally, from a proper methodical and psycho-pedagogical training. In the best case scenario, the instructors have graduated a module of psycho-pedagogical training, designed for teaching in the undergraduate system. This proves to be insufficient for designing a performant teaching activity at postsecondary level.

If we stive for efficiency in teaching at a universitary level, a program centred on developing the teaching competencies must include two major components: a) **evaluating** the teaching activity and b) professional **development**. With the specific tools, the evaluation component has the purpose of offering useful information to the teaching staff, the institution and the students as well. The professional development involves a series of activities (consultance, workshops) designed for counseling the teaching staff in the interpretation of the evaluation results in the proper use of teaching methods, in order to optimise their teaching activity.

a) Evaluation

Essential for building and implementing an evaluation system of the teaching activity is the purpose formulation. The purpose of the evaluation orients the setting of the assesed aspects, conditions the source ellection, the analisys methods and data collection, the analisys depth, as well as the dissemination method of the gathered data.

Thus, according to the purpose and, implicitly, to the data beneficiar, the evaluation can be formative, summative or informative. We talk about a formative evaluation if it's purpose consists of offering information to the teaching staff, in order to allow them to improve their activity and set up a professional development plan. The evaluation is summative when it is initiated by the institution with the purpose of justifying it's personnel decisions (differential sallaries, promotion, prolonguing the status of associated professor, forfeits, ending the work contract etc.). The evaluation has an informative purpose if it offers the students useful data about a specific class (e.g. how much effort it is necessary, how interesting it is, how is the grading being done etc.). Usually, the evaluation tools of the teaching activities contain items (questions) that follow the above three purposes.

As for the aspects that are to be evaluated, numerous studies (Centra, 1993, 2003; Feldman, 1988; Fuhrmann and Grasha, 1993; Lowman, 1984; Sherman, 1997) discuss the multidimensional nature of teaching, thus making it's definition even more difficult and, implicitly, defining the evaluation means. By overlapping more results obtained through empirical research and their comparative analysis have resulted seven dimensions that can be taken into account when assesing the quality of teaching competencies of an instructor in higher education (Miclea & Opre, 2002).

1. Preparing and organizing classes. This ability is mainly expressed through:

a) the clarity of class objectives (stated in the syllabus) and the objectives of each teaching theme)

b) organizing the information to be taught (the internal logic of teaching a class, organizing the matter according to time)

c) the frequency of using certain methods that facilitate learning (questioning, cooperation, activation, and other discipline specific methods)

d) adapting the course according to the feedback from the students (e.g. the instructor sees that something "is not right" with a certain topic, concept, from the point of view of the student that is readjusting it's course)

2. Comprehensive knowledge of the taught discipline, expressed mainly through:

a) scientific accuracy of the information presented

b) the transfer of the taught knowledge and it's relations with other classes or similar disciplines

c) integrating the recent research results in the course to be taught

d) appropriate answers to the student's questions

e) a perspective view on the discipline

3. Communicating and relating abilities

a) clarity of presentation, from the receptor's point of view

b) appropriate retorics

4. Passion for teaching the discipline, noticed in the:

a) enthusiasm and dinamicity of teaching a certain topic or integrating the new research results

b) ability of motivating the students and stimulating their intellectual curiosity

c) the students feel that the class is an intellectual challenge, a major learning experience

5. Availability and the relation with the students

a) available and punctual on consultations

b) honesty and positive attitude with the students

c) the utility of the comments made in seminaries, presentations or licence diplomas, as it is being perceived by the students

6. Quality of student evaluation

a) evaluation fairness

b) use of proper evaluation methods

c) the evaluation regards the relevant aspects of the discipline

d) use of formative evaluation methods

e) development of self evaluation and grading abilities (selfgrading, grading presentation, feedback after presenting the grades)

7. Quality of the teaching products

a) quality of the teaching material (syllabus, class materials, proof of cuuricular innovation, bibliography, evaluation methods)

b) proof of cuuricular innovation

c) proof of students' academic success (e.g. the quantity of knowledge attained during the class, winning certain student scientific contests, obtining research scholarships, publlishing articles, materials on the students' academic success – exam papers, presentations, projects etc.)

d) proof of the strive for professional optimisation (e.g. the plan for optimising the teaching activity)

It is now well known the fact that the evaluation of the teaching activity involves the use of information from as many sources as possible – students, products of the teaching activity (syllabus, class materials, proof of cuuricular innovation, bibliography, evaluation methods), colleagues, graduated students, personal reflection on one's own teaching activity, proof of the strive for professional optimisation etc. None of these sources can not offer, by itself accurate enough information on all the dimensions of the teaching activity, each with it's values and limitations. Considering this principle, the evaluation of the teaching staff can not be done only based on the information given by the students. To this, we must add the data given by the colleagues and the self evaluations. Thus, if the students accurately evaluate the teaching process, they are not as reliable for assesing other dimensions such as the scientific content of the course or the scientific contribution of the professor. As for these two last issues, the colleagues and professors evaluated can offer more accurately the needed information. The colleagues from the same area represent the most valid sources for evaluating the content of a course that covers their field of competence. Also, the professor itself is the only person that can justify the opportunity of its personal contributions. Computerized data basis, bibliographical references, research projects and reports, the projects of the students coordinated by the evaluated professor, the materials designed for long distance learning, the manuals elaborated are nontheless useful sources of evaluation.

The information from all these sources, usually sinthesized in the so called **teaching portofolio** is being collected with various methods and instruments, thus ensuring the accuracy and whole of the image upon the teaching activity. In a formative evaluation system, the teaching staff must be stimulated to call for feedback on their teaching activity, to decide alone what information and sources are more useful for their own development.

b) Optimization

The optimization of the teaching activity can not be done automaticly, based only on the evaluation of various dimensions of it. The formative evaluation is a necessary yet not sufficient condition for improving the academic activities. The professional optimisation suggested by this type of evaluation calls for the achievement of four conditions (Centra, 1994, 2001). These are:

1. the evaluation should offer a new and updated feedback on the activity of the professor;

2. the evaluation should have credibility in the eyes of the evaluated instructor;

3. the professor should have the appropriate resources for improving it's performance;

4. the instructor must be motivated to make the change, to improve it's performance.

In other words, you do not change unless you are motivated, you have the resources to do it, believe in the validity of the evaluation or believe that it actually says something. The change involves all these links and, as in any chain, if a link is weak, the entire chain is weak.

The specific literature talks about the numerous and various strategies that are presented to the teaching staff in order to improve. Menges & Austin (2001) mention a great amount of studies, grouping the strategies in the following five categories: a) individual optimisation strategies; b) strategies involving the students; c) strategies involving colleagues; d) strategies coordinated by the institution; e) strategies promoted by various professional associations. The strategies that the professors use at an individual level include – personal reflection upon one's own performance, elaboration of the teaching portfolio, keeping activity logs, initiating small teaching researches (e.g. testing in class new teaching methods). Optimising strategies that involve the students imply the regular use of student feedback, interpreting and using the results. Strategies that regard the colleagues include the orientation programs (e.g. mentoring programs for the post-graduates, teaching assistants, lecturers); experience change programs (developing group projects and beginning of debates on teaching topics); workshops, seminaries. Among the strategies initiated at an institutional level in the purpose of teaching optimisation, the most important consists of the development of the so called "faculty development centres" or "centres for teaching and learning". Among the themes found in the activities of consultancy offered by these centres it is worth mentioning: methods of active learning based on cooperation, teaching methods based on using the new technologies, techniques for improving the verbal and non-verbal communication, efficient methods for emotional control, strategies for motivating the students' learning, efficient methods for evaluating the academic performances of the students, strategies for using the results of the evaluation of the teaching activity in professional optimisation.

To conclude, any institutional program that desires to ensure the quality of the teaching staff must include an evaluative component in the purpose of diagnosing the aspects to be optimised, to offer professional development opportunities (consultancy, workshops, information resources),and to support and reward the preoccupation and practice for improving the teaching activity. The teaching staff will thus be motivated to constantly reflect upon their performance, to continuously improve their deficits and to cooperate with other colleagues for this optimisation.

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A METACOGNITIVE APPROACH TO CAREER COUNSELING

GABRIELA LEMENI[*]

ABSTRACT. Career counseling is concerned with facilitating career decision making process and developing good decision makers who are able to metacognitively gather and use information related to their career decision. Theories of career development and counseling address more or less explicitly the metacognitive components of career decision-making. This study investigates the metacognitive components of decision making process and outline some benefits for a metacognitive approach to the counseling process.

Key-words: career decision, metacognition, career counseling

Career decision making involves simultaneous processing of two kinds of knowledge – knowledge about the self and knowledge about the world of work. Five information processing actions are supposed to be involved in the process: *communication*, that refers to recognizing a career problem, *analysis*, that means analyzing what is required for problem resolution, *synthesis* that involves elaborating on possible solutions for the problem and crystallizing solutions compatible with one's interests, abilities and/or values, *valuing* that requires examining and prioritizing alternatives and *execution*, or developing a plan of actions for implementing optimal solution (Peterson, Sampson & Reardon, 1991; Peterson, Sampson, Lenz & Reardon, 2002).

The five steps of information processing are considered running in a cycle (CASVE cycle - Peterson et al, 1991; Peterson et al, 2002). However, the CASVE cyclical information processing is rather iterative than smooth and linear. Any information processing action can be interrupted before finishing it and another one can be repeated in order to optimize the process of career decision making. This is happening on a metacognitive basis (figure 1). However little is known about metacognitive functioning in the process of career choice. A better understanding of its role in the career decision making process could add efficiency to the career counseling of adolescents and adults who encounter difficulty working through the process of decision making.

This study will outline the metacognitive components of the decision making process, as they were approached in career research, and reveal some of the benefits career counseling could gain by using a metacognitive approach.

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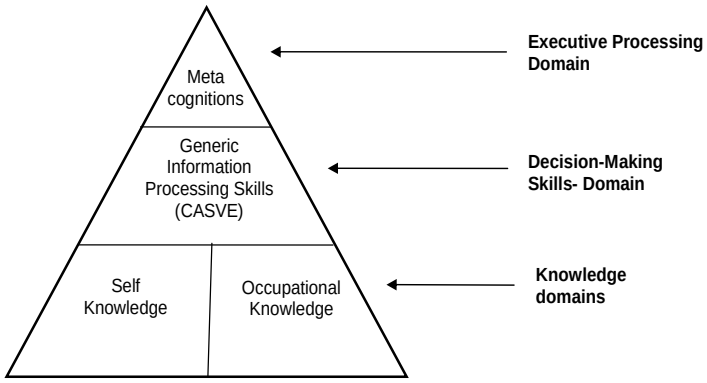

Figure1. Pyramid of Information Processing Domains In Career Decision Making. From G.W. Peterson, J.P. Sampson & R.C. Reardon (1991). Career Development and Services: A Cognitive Approach, Pacific Grove, CA: Brooks/Cole Publishing Company. (p.28).

Metacognition and cognitive functioning

Metacognition is a fundamental aspect of human cognitive functioning. The relation between cognition and metacognition in a specific task is hierarchical. Metacognition *monitors*, based on knowledge or "model of process", and *controls*, through specific decisions and consequent actions, the cognitive level of task completion (Figure 2).

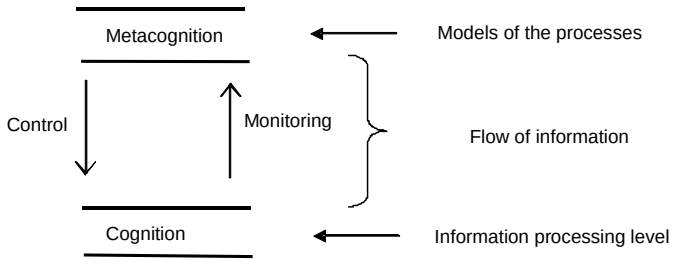

Figure 2. Relation between cognition and metacognition (adapted from Nelson & Narens, 199 4.

But what is metacognition? Flavell (1976, p. 232) stated that "metacognition refers to one's knowledge concerning one's own cognitive processes and products of anything related to them, e.g. the learning relevant properties of information or data." Further refiners of the concept distinguished between declarative and procedural aspects of metacognition, namely between metacognitive knowledge and metacognitive regulation (see table 1) (Baker & Brown, 1984, Hacker, 1998). Subsequently, a more operational definition of the concept of metacognition suggested by Wells (2000, p. 6) refers to metacognition as "any knowledge and process that is involved in the appraisal, monitoring, or control of cognition".

Metacognitive knowledge is not different from other types of knowledge stored in long term memory. They are relatively stable and verbalizable (Brown, 1982), and can be acquired and adjusted with experience. Their metacognitive role arises from the direct relation with the cognitive level of processing, and is involved in monitoring, evaluating and controlling task completion. Metacognitive knowledge informs self-regulatory actions that are oriented toward orchestrating the cognitive components of problem solving (Paris & Winograd, 1990). These self-regulatory actions are known as *metacognitive regulation*. It contributes to the improvement of performance on a task through a better use of attentional resources and cognitive strategies (Schraw, 1998).

Table 1.

Metacognitive components

Metacognition	Components	Description	Examples
Knowledge	person variables	knowledge and beliefs about human beings as cognitive processors	- an individual may believe she or he is good at mathematics but poor at literature, - may have universal knowledge about human memory as fallible
	task variables	knowledge about the nature of tasks and the demands information processing exerts on him/her	- a person can learn through direct experience that different kinds of tasks need different amounts of time to proceed

	strategy variables	knowledge about cognitive and metacognitive strategies involved in the completion of task	- an individual may know where and how to apply a strategy (cognitive strategy: calculating, evaluating alternatives, etc. or metacognitive strategy: monitoring process, planning for completion of task, selection of strategies, etc) and why it is efficient
Regulation	planning	selecting appropriate strategies and resources for a specific task, setting up goals and subgoals for problem resolution	- a person may develop a plan consisting of strategies and objectives he/she aims to attain that will organise the whole process of problem resolution
	monitoring	online awareness of process and performance	- an individual may observe he/she is on the right track or that he/she deviated from it, that the process is more difficult that expected, etc.
	evaluation	appraisal whether the goals set were attained or not	- a person may be content with the result or not

Metacognition in career decision making process

Metacognition is an important aspect involved in the career decision-making. Good career decision makers are metacognitively regulating the process of information gathering and use. Theories of career development and counseling address more or less explicitly the metacognitive components of career decision-making: self-awareness, awareness of the world of work, awareness of the decision making process and monitoring and control of the decision making process.

Self-awareness conceptualized as the awareness of personal feelings and thoughts as individuals engage in information processing tasks is important in the decision-making process (Peterson et al., 1991; Peterson et al., 2002). Reardon et al. (2000) stated that "good problem solvers are aware of their feelings as they engage in information processing tasks". Cognitive and affective reactions to the decision making process become one of the internal cues that prompt individuals to employ metacognitive skills and eventually revise goals (Carr, 2004). People's beliefs about themselves and the world of work influence their approaches to learning new skills, developing new interests, setting career goals, making career decisions and taking action toward career goals (Amundson, 1997, Mitchell & Krumboltz, 1996). Core career beliefs as self-sufficiency, external influences, and self-advocacy sygnificanly contribute to the variance of career indecision score (Herr, 1996).

Among these feelings, the automatic thoughts that can introduce bias in an individual's information processing related to career decision making were studied more frequently (Beck, 1976, Robins & Hayes, 1993). A goal of career practitioners would be to uncover automatic thoughts that could generate indecisiveness or even faulty decisions and challenge them (Carr, 2004). Awareness of tacit assumptions and thoughts about self and careers is critical to effective career decision making. Krumboltz & Jackson (1993) noted that bias, misinformation and distorted negative beliefs clients bring to career choice could lead them to self-defeating and disabling experiences as well as limited future learning opportunities. Negative self-statements can lead to career indecision, and result in inappropriate choices by impairing clients' ability to use occupational information (Elliot, 1995). Alternatively, positive career beliefs facilitate clients' movement through the career decision-making process, creating positive and realistic expectations and engaging in career-related behavior (e.g. career exploratory behavior) (Bluestein, 1989).

Self-efficacy and outcome expectations are viewed as important shapers of people's aspirations and career trajectories, both in a distal and proximal relation to the career choice (SCCT; Lent, Brown & Hackett, 1994, Lent, Brown & Hackett, 2000). Self-efficacy is defined as "people's judgment about their capabilities to organize and execute courses of action required to attain designated types of performance" (Bandura, 1986, p.391) and derives from four principal sources of information: performance accomplishments, vicarious learning, verbal persuasion and physiological arousal. Outcome expectations are personal beliefs about the probable outcome of a certain behavior, and involve the imagined consequences of the behavior. SCCT authors consider that people set goals and make choices based on the judgements they make about themselves in a particular situation, giving to self-efficacy and outcome expectations a metacognitive role.

In the vocational literature the concept of perceived barriers is often used to depict the metacognitive role of self-efficacy and outcome expectations. Different types of self-efficacy addressed within studies on social-cognitive variables show a great impact on the selection of activities and careers children chose to enter or explore. Children's perceived academic, social, and self-regulatory efficacy influence the types of occupational activities for which they judge themselves to be efficacious and gives direction to the kinds of career pursuits children seriously consider for their life's work (Bandura, Barbaranelli, Caprara, Pastorelli, 2001).

Awareness of the world of work and careers is also addressed in studies on career choice, with myths about career and occupational stereotypes being given the most attention. Students who are undecided about the career they would like to pursue, proved to have significantly more myths about career (Larson, 1988, apud Stead et al, 1993). Myths refer to faulty generalizations about careers and the career decision making process. Examples of myths are: "Career testing will tell me exactly what occupation is right for me", "I will only have one career in my lifetime", "I can trust in fate to bring me to the right occupation", etc.

Occupational stereotypes consist of expectations regarding the traits (i.e. attributes and behavior) of persons based on their membership in an occupational group (Workman, Freeburg, 1997). They have predominantly a negative content and commonly include race, ethnicity, sex, socioeconomic status, attractiveness, appearance, speech and often personality and character traits. Occupational stereotypes influence the choices that people make. For example, gender stereotypes are influencing the way girls and boys relate to careers by: altering the knowledge about nontraditional occupations, influencing interests for nontraditional occupations (people are interested in occupations traditionally associated with their gender, Levy, Sadovsky, & Troseth, 2000) and altering selection procedures (Valian, 1998).

Knowledge about the process of career decision-making

A special attention was given to the locus of control associated to career decision-making. Research has consistently revealed significant career decision-making benefits associated with a belief that career decisions are internally caused and controllable (Blustein, 1987, Luzzo & Ward, 1995). As Taylor (1982) summarized, individuals who believe that career decisions are internally caused and under their own control "may take both an active role in the direction of their educational/vocational futures and personal responsibility for decision making and for gathering the kinds of information necessary to such decisions" (p. 319).

Career decision-making self-efficacy, originally defined by Taylor and Betz (1983) as the individual's belief that he or she can successfully complete tasks necessary in making career decisions, has received extensive attention from researchers (Betz & Luzzo, 1996). Career decision-making self-efficacy has been measured by using the task domains of accurate self-appraisal, gathering occupational information, goal selection, planning, and problem solving. Research indicates that career decision-making self-efficacy is inversely related to career indecision (Bergeron & Romano, 1994), positively related to more adaptive career beliefs (Luzzo & Day, 1999), and career exploratory behavior (Blustein, 1989). Studies have suggested that career decision-making self-efficacy can be increased through verbal persuasion, one of Bandura's postulated four sources of efficacy information and through attributional retraining (Luzzo, Funk, & Strang, 1996).

Metacognitive regulation appears in the CIP Theory (Peterson et al, 1991; Peterson et al, 2002) a very important component of career decision making. The two metacognitive processes monitoring and control are conceptualized as being related to the "thoughtful balance between compulsivity and impulsivity" and consist of knowing when to stop the decision-making process and when to move ahead (Reardon et al, 2000, p. 88). Poor monitoring and control skills can yield to extreme behaviors, from impulsive decisions based on trial and error attempts to compulsive decisions stuck in the search for the "perfect" career. Competent decision-makers and problem-solvers monitor the content and extent of information in the lower-level processes. They can quickly detect when there is a deficit in

information that will prevent progression to the next stage in the decision-making. Decision-makers who exercise monitoring and control skills also know when to move forward in the process of decision-making.

Improving monitoring and control skills can lead to a better performance in career decision making process. Monitoring and control are essential for deciphering the information needed to solve a career problem and for deciding when a person is ready to move to the next step in the CASVE Cycle (Herr, Cramer, Niles, 2004).

Implications for research and counseling

In order to develop people's metacognitive skills we need to know how metacognitive knowledge and regulating strategies work. However, there is an imbalance in the amount of research approaching metacognitive components of career decision, with more attention being given to the knowledge component of metacognition. Also, none of the models described in this study approached metacognitively the relation between metacognitive knowledge and the career decisions making or counseling process. Questions like "How people decide they need more information about themselves or about careers?", "When do they stop the exploration process?" are related to personal standards and models of the processes that were just slightly investigated.

Some new research approaches can be very useful in the attempt to investigate metacognition:

1. *The Recognition/Metacognition Model* (Cohen et al, 1998) although developed in a tactical decision making context can be used as a framework for investigating metacognitive mechanisms. The model incorporates two kinds of metacognitive processes: critiquing processes, that are useful in identifying problems at the level of information (e.g. incompleteness, conflict or unreliability of information), and correcting processes that respond to these problems by instigating external actions, such as collecting additional data, and two kind of internal actions, attention shifting and information revision.
2. *The metaphor paradigm as a practice-based research of career* (Mignot, 2000). It enables practitioners to use metaphors as a career research and counseling tool. By means of the metaphors people work with, counselors are able to identify the tacit beliefs which emphasize rules of people's conduct and to work with individuals to construct an alternative guiding metaphor.

Metaphor was used as a frame to identify deeper constructs related to career (Amundson, 1997, Inkson, 2004). There were identified nine key metaphors extensively used by theorists, practitioners and workers to conceptualize career. Career can be conceptualized as: inheritance – passed on from one's class, gender and ethnic origin, construction – an ongoing craftsmanship through which a person expresses himself and endeavors to meet his/her ongoing needs, cycle – a sequence of predictable stages through which a person progresses, matching process - a "hole in a pegboard" shaped for a person to fit into, a journey – an ongoing travel

through occupational and organizational space, encounters and relationships – a network of social, organizational and economic relationships, a set of roles – a performance based on the personal interpretation of a script, resource – a building block for organizational performance, and story – a piece of rhetoric on how people should live (Inkson, 2004).

3. *The CIP model for evaluating the effectiveness of cognitive reframes of dysfunctional career thoughts* (Carr, 2004) can be used as a research tool as well as a screening and monitoring tool for practitioners.

Integrating metacognition into counseling can benefit the process with: 1) enhancement of an individual's ability to understand the decision-making process and the requirements of the task and 2) ongoing monitoring and coordination of vocational development issues. These aspects are important for counselors as well in order to develop effective strategies for preventive or remedial interventions in career indecision. This can be attained by:

- raising awareness of beliefs and assumptions people hold about themselves, careers and the career decision making process, and of their metacognitive role. Beliefs that can potentially cause distress in career decision-making are probably based on: faulty generalizations, self-comparisons with a single standard, exaggerated estimates of the emotional impact of an outcome, drawing false causal relationships, ignorance of relevant facts, and giving undue weight to low-probability events (Krumboltz, 1983). Counselors could lead clients to identify and be aware of these sources by metacognitively involving clients in the process of decision making.

- developing metacognitive skills in clients, promoting metacognitive regulation of the process of career decision and creating opportunities for clients to exercise metacognitive regulation skills into the process of career counseling. The CIP theory (Peterson et al, 1991; Peterson et al, 2002) outlines three kinds of overlapping metacognitive skills that can be learned by clients in order to become more effective career decision makers: self-awareness, self-talk, and monitoring and control (Peterson et al, 1991; Peterson et al, 2002).

- self-monitoring of thoughts to avoid biases. The career mindset framework (Stewart, J. B., 2002) considers three key components of career understanding: availability of career knowledge, ability to process information against this knowledge domain and the ability to monitor one's thoughts and thought processes. Applied to the multicultural career counseling setting, the framework revealed the need for counselors to monitor their thoughts in order to avoid making common errors and biases like: dispositional attributional error (attribute causes of behavior to personality factors), confirmatory bias (confirm the first impression), behavioral confirmation of expectations (using initial beliefs about people to plan the interactions with them), overconfidence effect (confidence in the accuracy of his or her judgments, being unaware of biases of cognition).

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RECENZII – BOOK REVIEWS

Contemporary pedagogy – A Pedagogy for Competencies. Author: prof. univ. dr. Vasile Chiş

The present volume, „Contempo rary Pedagogy - A Pedagogy for Competen cies", edited in 2005, proposes, in its essence, a new educational paradigm. *The Pedagogy for competencies* represents a new model for the theoretical and practical aproach of the contemporary pedagogical issues and an answer for the numerous oposite debates emphasised nowadays in pedagogical sciences such as:

- Pedagogy of Comenius – Alternatives in pedagogy
- Surface learning pedagogy – Deep learning pedagogy
- Rote learning pedagogy – Problem solving pedagogy
- Knowledge based pedagogy – Competencies based pedagogy

The author of the volume argues that the study of the opposites in Pedagogy leads to a clear conclusion: the pedagogy as we see it at present or in the future is **a *pedagogy of competencies***. In this context, he expresses the fact that the contemporary pedagogical practice and discourse face a series of changes of a different nature then before. There are changes that do not appear as simple new theories and beliefs artificially incorporated into the classical comenian pedagogy. They are powerful enough to invite for an important transformation of the pedagogical paradigm. Which would be the causes, the sources of these changes? This is a question that the author stresses on and for an answer he identifies certain so called *pressure factors* in the sense of positive change:

- general recognition of the intrinsic potential for development existing in the child/ youngster/ adult;
- general recognition and celebration of the complex school population diversity
- The recognition of the community priorities as important reference points and as issues for the school to answer at.

The above mentione pressure factors ask for the development of flexible and dynamic educational systems, that would offer multiple schooling alternatives and would be effective in both formal and informal settings.

The major tendencies of the contemporary pedagogy each described in one of the five chapters of the book represent, in the view of the author, the consequences of these changes and as many arguments for a pedagogy focused on competencies development.

The first tendency*:* Schools tend to become connected with the reality they are part of. The firts chapter describes the importance of the social, cultural and professional effective integration of the school institution with the community it serves. The connection point is, according to professor Vasile Chiş, the correct identification of the general and specific competencies that the contemporary individual needs for his efficient social insertion. This is defined by the author as an imperative of the pedagogical theory and practice, together with others, some of them of a theoretical nature, such as: the need for an entrepreneurial pedagogy, others of a practical nature: the need for the effective educational use of the new information and communication technologies, and, in consequence, the creation of new teaching and learning models such as: the open classroom, distance learning mediated through electronic learning milieus.

The second tendency: the swich from the ierarchical educational systems to the web structured educational systems, a tendency that invites the reconstruction of the school space, social climat and even school architecture. The old model of the *uni-forme* in education it is contrasted with the model of diversity and *pluri-forme*. New concepts and practices such as: "open school", "a school for all", "inclusive school", "resource centred school", "integrated education" etc. are strictly associated in the book with the web structured educational systems and are considered global solutions for the educational reformation.

Quality assurance in teaching and learning together with the recognition of personal responsibility for quality learning represent ***the third tendency,*** which offers the context for a thorough discussion about the features of quality learning. The author introduces two relatively new terms, of a constructivist origin and with a deep explanatory power: surface learning and deep learning. The last is considered to be a way of learning that creates experts in the field or subject approached, that has development consequences for cognition and emotions; it implies effort but offers satisfaction and accomplishment feelings to students. The importance for the quality of learning of intrinsic motivation, active attitude, interpersonal interaction and cognitive apprenticeship is also extensively and pertinently discussed.

The ***tendency*** described in the forth chapter, that of the promotion of an interactive pedagogy as a milieu for competencies education, offers the author the context for a deep analysis of the term "teaching". The discussion about teaching as a continuous challenge for teachers as well as the one regarding teaching as organisation and management of learning situations are highly inspiring for both theorists and practitioners.

The last chapter insights again for deeper analyses into the main subject of the book, ***the tendency*** for the construction of a curriculum / pedagogical programme focused on training of competencies. The very concept of "competence" is now explained together with the description of the competence development levels as well as of the means, models, and educational programmes capable to systematically train the general, transferable and specific competencies. A special attention is given to integrated curriculum, described as one of the most efficient means for "education for real life".

"Contemporary Pedagogy – The Pedagogy of Competencies" integrates the results of recent researches, evaluations and applications in the field of educational systems. The book may easily be considered a generative matrix for reflections, theoretical deductions and transfer into practice of valuable pedagogical idea. Professor Vasile Chiş succeeds to connect the reader to the contemporary European and World pedagogical discourse, without ignoring at all the national educational context.

Lect. univ. drd. **Adina Glava**

"Pedagogical Research in the Field of Religious Education", **Reîntregirea Publishing House, Alba Iulia, 2004**
authors: Monica Opriş, Dorin Opriş, Muşata Bocoş

Man relates to reality, not only pragmatically, using his intellect, taking action and making decisions, but also spiritually, through his feelings, attitudes and faith. In other words, education will not reach its ultimate objectives if it disregards or leaves out any of its main

elements. Obviously, a complete education implies, besides the intellectual, moral, esthetic and technologic components, a religious component, as well. Moreover, to an ever greater extent, pedagogical research makes itself known as an independent subject, essential to the general knowledge of graduates of various specialties, individuals qualified for the teaching profession. Undeniably, due to this approach, the book ***"Pedagogical Research in the Field of Religious Education"*** contributes to the filling in of a serious gap existing in our pedagogical literature. In accordance with the ideas mentioned above, the book under discussion represents both a plea and an urge addressed to all practitioners to conduct research in the field of religious education.

"Pedagogical Research in the Field of Religious Education" is structured into eight chapters, a bibliographical list and five appendices.

Chapter I deciphers the notion of pedagogical research and presents the features characteristic of religious education. In order to determine the teacher of Religion to undertake research, the authors refer to the complexity and necessity of pedagogical research, to its taxonomy, systematically making references and giving examples from the field of religious education.

Chapter II offers the reader a practical guide for the design of pedagogical research, useful to any teacher of Religion who has engaged in the process of pedagogical investigation. As in the first chapter, we have to remark the diversity of the examples offered by the authors, the clear delimitation of instructions specific for each stage, and the highlighting of possible errors that can appear. This chapter is very important because it guides the potential researcher, step by step, along the managerial enterprise of the pedagogical investigation.

In Chapter III the authors tackle the issue of methodology specific to the pedagogical research, presenting in detail the descriptive and minimal inferential statistics, specific for the pedagogical research. Definitely, the writers' capacity to synthesize succeeds in conferring the content of this chapter the characteristics of a reference guide, free of any redundant words or arguments. Here, too, the reader can make good use of the multitude of examples, specially selected to illustrate each statistical procedure. The use of an up-to-date bibliography and of a precise statistical terminology is an ever more convincing evidence of the authors' research competencies.

Fully adjusted to the core recommen dations of curriculum theory, throughout Chapter IV, the authors adopt an inter disciplinary approach of the religious phenomenon and its research process.

Chapter V discusses the issue of practical difficulties that might occur in pedagogical research. Thus, the researcher gets the necessary information related, both to the problems he may encounter, and the solutions to these deadlocks.

Chapter VI, entitled *"The Ethical Implications of the Pedagogical Research Specific to Religious Education"*, as a consequence of the numerous problems and illustrations presented, abounds in originality and ingenuity.

The inestimable value of the book, as a reliable working tool for the teachers of religion, is emphasized in Chapter VII. Here are presented several operational working models for researchers.

Last but not least, in Chapter VIII, the book offers objective recommen dations to those willing to devise methodical-scientific papers in the field of religion, giving useful advice with

regard to the elaboration, editing and public defense of the research paper.

In brief, ***"Pedagogical Research in the Field of Religious Education",*** is a creditable achievement grounded in the authors' clear discourse, reflexive style, and, undoubtedly, applicative character. The clear language and the friendly graphical forms attract the readers' attention upon the main points. The book, a veritable landmark to all teachers of Religion, is very useful and it can be studied without any difficulty.

PhD, Professor **Horia Pitariu**