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## THEORETICAL APPROACHES – NEW INTERPRETATIONS

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### JUAN LUIS VIVES: THE EUROPEAN DIMENSION OF EDUCATION IN THE GOLDEN CENTURY

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TSTD - University of Craiova

#### **Abstract**

*The triumphs based on the humanist idea of education. In this context, The Pedagogical work of J.L.Vives is one of the most important legacies of the Renaissance, because the aim and curriculum of education in his vision reflects the ideals and interests of the particular age of humanity. In The Golden Century it is arguable that the education of women was encouraged. Vives believed that women could learn Latin and Greek and continue to a level in which they could assist their sons in preparation. De Ratione Studii Puerilis, written upon the request of Queen Catherine to serve as a plan of study for Mary Tudor; De Institutione Feminae Christianae work commissioned by Queen Catherine which would become the leading theoretical manual on women's education of the sixteenth century; and. De Tradendis Disciplinis are the most important works of J.L.Vives as pedagogue. This paper underlines that the multilingualism (knew Latin and Greek but also French, Dutch, Spanish, English and Italian), the open mind, and his tumultuous life demonstrates that the European Dimension remains a strong definition of his works, and its destiny.*

**Key concepts :** *educational theorist, the Education of a Christian Woman, pedagogic work, Golden Century, European dimension of education*

## 1. Elements for a biography

*Juan Luis VIVES* (1492? -1540) is "one of the top Renaissance educators and anthropologists" (De Angelis, 2000, Nardi, 1965), a well-known "committed humanist"<sup>1</sup>.

Converted Spanish Jew, he lived almost all his life outside Spain, his academic activity, particularly appreciated, unfolding especially in *London – Oxford* and *Paris*. He was also a professor at *Leuven* and *Bruges*.

He was permanently in touch with the authority, both with the power of mind, being a friend of Thomas More and the collaborator of Erasmus of Rotterdam, and the earthly power, the royal pompous, brilliant, ostentatious power of the kings and queens, princesses and duchesses, but also the spiritual power of the popes or cardinals.

*Catherine of Aragon*, Queen *Isabella of Spain's* daughter, Princess *Mary*, King *Henry VIII of England*, *Duchess of Nassau*, but also *Pope Adrian VI* or the young *cardinal Croy* have been close friends. He gained valuable teaching experience. He was tutor to Princess *Mary*, the future *Queen Mary of England*, and the courses held in *Oxford* (obtained on the recommendation of *Cardinal Wolsey*) were witnessed by the Princess' parents: *Henry VIII* and *Catherine of Aragon*, his Spanish wife.

*J.L. Vives* did not come from a very wealthy family. His parents, educated people were Hebrew converted to Christianity. His father, *Luis Vives*, because of an alleged return to *Judaism*, was tried by the Spanish *Inquisition*, on 6 September 1524, the process being concluded with the verdict of capital punishment; it is known from the middle of the last century as a result of documentary research. His mother, *Bianca*, died of plague in 1508, but her body, as a result of the inquisitorial process against her husband was, after almost 20 years, exhumed and burned. *Vives's* mother had a great contribution to his education and it is possible to have laid the foundation for his teaching beliefs. She remained for him the model of the *Christian woman*. After his mother's death, he moved to *Paris*, in 1509, and studied philosophy and theology at the *Sorbonne*. From 1516 *Vives* lived more in *Leuven*. Although he was deprived of an official title, *Vives* received the permission from the *University of Leuven* to teach in public. In the same year he became professor of *Guillaume of Croy* (1498-1521), *bishop of Cambrai*, who a year later, as archbishop of *Toledo*, was named Primate of *Spain*.

Let's remember that *Vives* worked at *Corpus Christi College*, *Oxford*, as a lecturer of Greek. However, only at the end of 1523, he received his doctorate at *Oxford*, becoming a *Doctor of Civil Law*. He remained at the royal court due to his excellent academic reputation. He was a good speaker, and his lectures distinguished by the elegance of form. As the instructor of *Henry VIII's* daughter, he developed a study plan, *De ratione puerilis studii* (1523)<sup>2</sup>.

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<sup>1</sup>Guy, A. (1972), *Vivès ou l'Humanisme engagé*, Paris: Seghers.

<sup>2</sup> Vives, J.L., *The Education of a Christian Woman. A Sixteenth-Century Manual*. Edited and Translated by Charles Fantazzi, 2000 Publisher: University Of Chicago Press

Vives's stay in England was interrupted only by short visits to *Bruges*. The reason was his marriage on 26 May 1524 with the 19 years old daughter of a prosperous merchant.

In *Bruges* met and became a close friend of *Adrian of Utrecht*, vice chancellor of the University, who later became *Pope Adrian VI*. Vives has sent him one of his letters, giving a clear diagnosis and possible solutions for the diseases specific to his age<sup>3</sup>.

Vives was, for most of his life, a private tutor or instructor, including among his "students" his future wife, *Margaret*, daughter of the *Valdauras'* merchants in *Bruges*.

As a tutor to Princess Mary Tudor and close friend of Catherine of Aragon, in 1527, Vives took the Queen's side, the first wife of Henry VIII, in her quarrel with the king, on the marriage annulment.

J.L. Vives was imprudent to write and speak against the king. He received six weeks of house confine. Subsequently, he was expelled from England and went to *Bruges*. In *Bruges* he suffered financial difficulties, being completely unprepared for the situation of not having a generous employer. Only in his last years, he received a small pension from *Charles V (Charles Quint, 1500 – 1558)*.

From 1537 until 1539 was a close friend of *Mencia de Mendoza*, the first *Marquess de Zenete*, married in 1522 with *Enrique III of Nassau*, who was then the second and last wife of the *Duke of Calabria*<sup>4</sup>.

Juan Luis Vives had a short and sad life, marked by the premature loss of his hparents, a poor health and the exile.

He wrote many philosophical, pedagogic and methodological works and even a work of empirical psychology. He's the author of the paper, "*Latin Exercises*" published in 50 editions. He was adept woman's education, I several treatates on this topic. The best well-known work in this respect is "*On Christian Woman's Education – De Institutione Feminae Christianae*" (1523), work that has been translated into numerous languages and was highly respected.

## 2. J. L. Vives's Work: A Complex and Diverse Work

Born a hundred years before *Comenius*, he was a brilliant student of the *Academy of Valencia*, he wrote *Will Seymour Monroe*<sup>5</sup>, he acted as the tutor of a future queen of England, and he trained the young *cardinal of Croy* in *Leuven*, and among

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<sup>3</sup> Pope Adrian VI (Hadrian VI), also known as Adrian Florisz Boeyens, Adriaan Florisz d'Edel or Adrian von Utrecht (born in Utrecht and died in 1523 in Rome) after his profane name, was Pope between 1522-1523.

<sup>4</sup> *Dona Mencia de Mendoza* (1508-1554) was an admirer of Erasmus, a rich and educated Duchess, a Spanish who protected arts.

<sup>5</sup> Monroe, W.S. 1900, *Comenius si începuturile reformei educaționale [Comenius and the Beginnings of Educational Reform]*, New York, Charles Scribner 's Sons

close friends also counts the *Duchess of Nassau*. He worked with *Erasmus* and corresponded with *Thomas More*<sup>6</sup>.

J.L. Vives stressed the need for public/school education that can provide a specific learning environment, which allowed contact with sciences and could form the individual personality. With *Exercitatio Linguae Latinae* (1538) Vives wrote a textbook, which was well received in many schools and by many scholars.

But his main work on pedagogy, more specifically methodology and didactics, remains, in our view, *De tradendis disciplinis* (1531).

Vives postulated expressly for the elimination of outdated teaching and observation methods in sciences<sup>7</sup>. Thus, he became an opponent of scholasticism. *De disciplinis* (*About subjects / objects of education*, work which appeared in 1531 in *Bruges*) is an encyclopedic treaty offering extensive criticism of the contemporary foundations of education, and a program to renew it. It consists of three parts: *De causis corruptarum trium*, *De tradendis disciplinis* and *De artibus*.

Vives believed that science ideally complements Christianity. His philosophy was dualistic. Science is just a confirmation of Christianity, he writes in *Introductio sapientiam veram* (1524) and in the work *De fidei Christianae* (1540), distinguishing himself in this regard.

*Bildungspädagogischen* merits of the Spanish<sup>8</sup> (see *C. Kahl*) are also so remarkable, because he promoted education for women, made this a real campaign in this sense. He devoted his work in 1523 to the first wife of Henry VIII, Catherine of Aragon, considering the education of their daughter, Princess Mary<sup>9</sup>. In *De Institutione Feminae Christianae*, Vives argued that a woman has the right to education. This education included the study of classical languages, Latin and Greek.

J.L. Vives was adept of *sequence in language learning*, native language, he believed, was the first to be studied.

The mother, wrote *Vives*<sup>10</sup> such as *Cornelia*, should see in his child his most precious jewel. The daughter will be familiar with the housework, but also receive education, to love virtue and avoid vice. Education will be achieved through play, stories, reading, submission and obedience. Piety, courage, education, virtue are true landmarks, and the young woman will learn that ranks, beauty, wealth are vanity, transient things.

<sup>6</sup> Norena, C. G. (1990), *A Vives Bibliography*, Lewinstone, NY: Mellen Press

<sup>7</sup> Margolin, J. C. (1976), "Vives, lecteur et critique de Platon et d'Aristote" in R. R. Bolgar, ed., *Classical Influences on European Culture A.D. 1500-1700*, Cambridge: Cambridge University Press, 245-58.

<sup>8</sup> Kahl, Christian, Biography of Vives (in German), in *Biographisch-Bibliographisches Kirchenlexicon*

<sup>9</sup> She was Queen of England and Ireland, Queen of Spain, Sicily and Naples. Mary was very unpopular, being reputed in that time as the Bloody Mary. History recalls the fact that Mary lost Calais port, the last English possession on the continent. He died in 1558.

<sup>10</sup> W.S.Monroe, op.cit.

A rigorous discipline, respected by all household members should defend her from vanity, laziness, love of luxury and excess jewelry, clothes and dresses, sophisticated hairstyles, etc.

Boys and girls will be trained separately, but with the same care, supported J.L.Vives

### 3. Renaissance Woman and Education: Myths and Realities

If Renaissance man could become "prince or warrior, artist or humanist, merchant or priest, scholar or adventurer", a woman of that period could be "mother or daughter or widow; virgin or whore, saint or witch, Mary or Eve or a Amazon"<sup>11</sup>.

Known educated women were: *Margaret Beaufort*, mother of Henry VII of England, royal protector of artists, the noble *Elisabeth Grymeston*, the humanist *Isotta Nogarola* from Verona, the Florentine nun *Beatrice del Sera* (1515-1586), from the Dominican monastery of San Niccolò in Prato, or *Mary Ward*, who managed to school 500 girls in a network of schools reserved for girls.

To the above-quoted we can add two more names, much more known, the poet *Vittoria Colonna* and the refined *Marguerite d'Angouleme*, sister of King Francis I of France, who became by marriage of Navarre, an intelligent and cultivated woman, protector of arts and humanists. *Marguerite of Navarre, Duchesse d'Alençon* (1492-1549) is, in fact, the praised author of a *Heptameron*.

*Isabella d'Este* studied geography, astrology; she had a good command of Greek and Latin and practiced patronage. Very known were also the *Duchess Elizabeth Gonzaga* and the noble Venetian *Caterina Cornaro*.

*Beghinas* must not be forgotten, the ones who took care of poor women's education in Belgium, German Rhineland and France.

Although the vast majority of women were illiterate, at more that a century after J.L. Vives's death, the Venetian *Elena Lucretia Cornaro Piscopia* took his doctorate (1678), following a career of scientist and university professor, etc.

In this socio-political and cultural context, J.L. Vives's contribution in women's education can be qualified as a work of synthesis and clarification, the perception of a need, woman's training, ordering and systematization of information that exists at that time and support for further development, in this plan.

*Catherine of Aragon*, raised at the court of his mother, *Isabella, the Catholic Queen of Spain*, came to England with an already formed respect for culture and trust in humanistic education.

Like his daughter Mary, Catherine was the beneficiary of a Christian education.

*Jane Grey*<sup>12</sup>, as *Catherine Parr*<sup>13</sup> have been trained women, like the one succeeding King Henry VIII to the throne, *Elizabeth Tudor*.

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<sup>11</sup> King, M.L., (2000). Femeia Renașterii [Renaissance Woman], in: *Omni Renașterii [Renaissance Man]*, vol. Coord. by Eugenio Garin and translated by Dragos Cojocaru., Iasi: Polirom

Having 40 editions, the Treaty of J.L. Vives dedicated to Christian woman's education, claimed that in woman's minds there are no defects to prevent her from acquiring wisdom, honor and chastity. But, highlighted Vives, training should not be excessive. Moral precepts, initiation in housework and good manners are more important.

An education through *prayer, obedience, respect* and *daily work* that keeps you away from laziness. But the woman had to know how to write and read.

#### **4. The Significance of Juan Luis Vives' Work: The European Dimension and the Didactic Instrumentalization of Pedagogic Contribution**

As author of remarkable works, Vives has been read and studied by philosophers such as *Ernest Renan* (1823-1892), *Friedrich Albert Lange* (1828-1875), *Wilhelm Dilthey* (1833-1911), *José Ortega y Gasset* (1883 -1955). *Lange* considered him a precursor of *Bacon* and *Descartes*. According to *Jose Ortega y Gasset*, Vives's method relied on the useful experience and not vague speculations. *Rene Descartes* (1596-1650) in *Les Passions de l'âme* (1649) refers to one of J.L. Vives's works, *On Soul and Life*. He rised from the ranks as a leading critic of scholastic philosophy, sterile debates, but also through the elegance in expression or valuable lectures.

He was an ardent admirer of Greco-Roman antiquity, of the representative works for that period<sup>14</sup>.

*De anima et Vita* (On Soul and Life, 1538) is a study of soul and its interaction with the body, a work that also contains an insightful analysis of emotions<sup>15</sup>. But the most valuable contribution remains in our opinion, the teaching. Vives is a valuable precursor of J.A. Comenius, the great Czech educator, of universal value.

Besides women's education, Juan Luis Vives had concerns about *language teaching* and *religious education of children*.

He believed that the care and welfare of the poor ones is not the sole responsibility of the Church, but of the entire Christian State.

Although Vives expressed in many areas a very modern and progressive attitude, he was never enthusiastic about the idea of the *Reformation*. He claimed a constructive and objective dialogue with those in rival camp.

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<sup>12</sup> The elder daughter of Henry VII, she lived between 1537-1554, was Queen of England for nine days only (July 10 to July 19 1553) and died beheaded. She knew Greek, Latin, Hebrew, Italian and French, and appreciated the works of ancient philosophers.

<sup>13</sup> She lived between 1512 and 1548, was the sixth and last wife of Henry VIII.

<sup>14</sup> See *Opera omnia* (1964), ed. G. Mayans y Siscár, 8 vols., Valencia: Monfort, 1782-90 and London: Gregg Press

<sup>15</sup> G. Zilboorg, psychiatric historian, calls Vives the "godfather" of psychoanalysis in his work from 1941 titled "A Hystory of Medical Psychology".

In religious matters, he has always been put in difficulty by explaining the relationship between the necessary, in his opinion, development of sciences and the ecclesiastical power. However, he always proved a smart attitude and rejected, undoubtedly and because of his family relations with the Inquisition, all forms of radicalism, pronouncing in favour of reconciliation and tolerance.

He always proved to be a fierce opponent of *scholasticism*, a man who believed in the possibility of knowledge of nature and in an education proper to nature. His knowledge, particularly in psychology, education and even in medical practice or education for a healthy life has led to further developments.

Vives was a supporter of new ideas about education in his time of day, appropriate to the nature of the child and individual differences.

*S. De Angelis, R.M. Ihanes, A.Guy, C.Khal, J.Ijsewijn și A.Losada*<sup>16</sup>, *Urmeneta Fermin*<sup>17</sup> *C.Fantazzi, P.Mack, J.C.Margolin, W.S.Monroe(1900), C.G.Norena*<sup>18</sup> and *G. Tournoy*<sup>19</sup> are only some of the specialists interested in the practical application of the work of the great Spanish teacher and psychologist.

Today, J.L. Vives's works enjoy the attention and appreciation in his home country, *Spain*. There are several institutions in Spain, called after J.L. Vives, and in *Bruges, Belgium*, there is the *Pedagogical Institute J.L. Vives VZW*.

In *England, France and Germany*, however, research on the life or works of Vives is quite rare. As in Romania, by the way.

For us it is important to underline its *didactic contribution in the field of language teaching, how to deal with differences in education and, especially, emphasized methodological issues*: the importance of playful, the stories, the education completed by the mother in the family environment, by specific means, attractive and colored with affection.

## 5. J. L. Vives's Reception in Romania

For the great education historian, Ion Gheorghe Stanciu, the pedagogic message of Juan Luis Vives is "an education appropriate for the human nature"<sup>20</sup>. *De tradendis disciplinis*, the main pedagogic work is "a true work of systematic pedagogy"<sup>21</sup> and the psychology work of Vives ("a curious empirical psychology treaty *avant la lettre*", after M. Debesse) is developed also from a pedagogical perspective: "the soul must be known, to be led"<sup>22</sup>.

<sup>16</sup> Ijsewijn, J. & Losada, A., eds. (1986), *Erasmus in Hispania Vives in Belgio*, Louvain: Peeters.

<sup>17</sup> Urmeneta Fermin de. *La doctrina psicològica y pedagogica de Luis Vives*

<sup>18</sup> Norena, C. G. (1989), *Juan Luis Vives and the Emotions*, Carbondale: Southern Illinois University Press.

<sup>19</sup> Tournoy, G. et al., eds. (1993), *Vives te Leuven*, Leuven: Leuven University Press.

<sup>20</sup> Stanciu, I.Gh.(1976), *O istorie a pedagogiei universal si romanești pana la 1900* [A History of Universal and Romanian Pedagogy to 1900], E.D.P., Bucharest, pp.86-89

<sup>21</sup> Idem, p.87

<sup>22</sup> ibidem

The Romanian educationalist C. Cucos considered him "one of the forerunners of experimental psychology and child psychology"<sup>23</sup>.

He is considered a dualist philosopher, Christian, but believing in the possibility of scientific progress.

Most times, he was expressing his belief in the importance of *early education*, from an early age, within the family, but also in the right school environment. He believed in *public education*.

"The Renaissance education model targeted an education oriented towards the study of nature, the free development of human being, harmonious development, upstanding and perfect individual (the *universal scholar individual*, connoisseur of classical Greco-Roman culture and science of weather ).... The School of *Vitorino Da Feltre* at Mantua and that of *Guarini Veronese* in Ferrara (XV century) and scholars like *Erasmus of Rotterdam* (1467-1536), *Juan Luis Vives* (1492-1540) [s.n.], *Michel de Montaigne* (1553-1582) were brilliantly representing the renewing spirit of the Renaissance in Education"<sup>24</sup>.

Presenting the need for women's education, J.L. Vives emphasized that the mother may be a complete teacher, always present, always caring.

Vives is considered in our country, the one who, "before Fenelon" expressed "concern for woman's education, focusing on the development of moral traits [s.n.], to which the whole training is subordinated", but also a *precursor of educational and professional orientation* [s.n.] (he appreciated that depending on skills, boys should be oriented to the priesthood or to a military career, etc., severe trial and decision belonging to those preoccupied by their education, recommending that they meet every 2-3 months).

"Vives remains a fine theorist who has enriched the pedagogical thinking, with a set of valuable principles and new methods. If *Vittorino Da Feltre* marked the transition from medieval to modern times, *Vives inaugurated the modern era, announcing and preparing the appearance of J.A. Comenius* [s.n.]<sup>25</sup>

He anticipated many of J.J. Rousseau's ideas, who, moreover, is likely to have influenced by *Montaigne*, author of the famous *Essays*. He expressed interesting views on medical training and health education.

C. Cucos, an important Roman specialist, said that "Vives revealed the importance of psychological background knowledge for a better education, by advancing principles and proposing directions of research specific to the child psychology. *For the development of personality in accordance with the Christian ideal, he recommend an education based on classical culture, but also on a content that was in accord with the individual interests and practicality. He advocated a public education and brought arguments in favor of a differentiated education for*

<sup>23</sup> Cucos, C. (2001), *Istoria pedagogici. Idei si doctrine fundamentale* [Pedagogy History. Fundamental Ideas and Doctrines], Iasi: Polirom, p.104

<sup>24</sup> Maciuc, I. (1998), *Puncte de reper in pregătirea pentru cariera didactica* [Milestones in Preparation for Teaching Career], University of Craiova

<sup>25</sup> Stanciu, I.Gh., op.cit.

women. He also granted a special interest to cultural training and teachers' moral formation [s.n.]<sup>26</sup>

**AS FOR US, WE APPRECIATE THAT THROUGH THE MULTILINGUALISM (HE KNEW WELL LATIN AND GREEK, BUT ALSO FRENCH, FLEMISH, VALENCIAN, SPANISH, ENGLISH AND ITALIAN), HIS PHILOSOPHICAL OPENING AND HIS EVENTFUL LIFE, VIVES SHOWS THAT THE EUROPEAN DIMENSION REMAINS A STRONG AND DEFINING CONSTANT OF HIS WORKS, AND ITS DESTINY.**

#### REFERENCES

1. De Angelis, S. (2000), "Zur Galen-Rezeption in der Renaissance mit Blick auf die Anthropologie von Juan Luis Vives. Überlegungen zu der Konfiguration einer 'Wissenschaft vom Menschen' in der Frühen Neuzeit" in M. Baumbach, ed., *Tradita et Inventa : Beiträge zur Rezeption der Antike*, Heidelberg : Universitätsverlag C. Winter, 91–109.
2. Cucos, C.(2001), *Istoria pedagogiei. Idei si doctrine fundamentale*, Iasi: Polirom, pp.104-108
3. Ibañez, Ricardo Marín(1994). JUAN LUIS VIVES (1492 ?-1540), in : *Perspectives : revue trimestrielle d'éducation comparée* (Paris, UNESCO : Bureau international d'éducation), vol. XXIV, n° ¾, pp. 775-792.
4. Guy, A. (1972), *Vivès ou l'Humanisme engagé*, Paris : Seghers.
5. Ijsewijn, J. (1977), "J. L. Vives in 1512–1517: A Reconsideration of Evidence", *Humanistica Lovaniensia*, 26, 82–100.
6. Ijsewijn, J. & Losada, A., eds. (1986), *Erasmus in Hispania Vives in Belgio*, Louvain: Peeters.
7. Kahl, Christian, *Biography of Vives* (in German), in *Biographisch-Bibliographisches Kirchenlexicon*
8. King, M.L., (2000). Femeia Renasterii, in: *Omul Renasterii*, vol.coord. de Eugenio Garin si tradus de Dragos Cojocaru, Iasi: Polirom
9. Maciuc, I.(1998), *Puncte de reper in pregătirea pentru cariera didactica*, Universitatea din Craiova
10. Mack, P. (2005), "Vives' *De ratione dicendi*: Structure, Innovations, Problems", *Rhetorica*, 23, 65–92.
11. Margolin, J. C. (1976), "Vivès, lecteur et critique de Platon et d'Aristote" in R. R. Bolgar, ed., *Classical Influences on European Culture A.D. 1500–1700*, Cambridge : Cambridge University Press, 245–58.
12. Monroe, W.S. 1900. *Comenius si inceputurile reformei educationale*, New York : Charles Scribner's Sons
13. Noreña, C. G. (1970), *Juan Luis Vives*, The Hague : Nijhoff.
14. Noreña, C. G. (1989), *Juan Luis Vives and the Emotions*, Carbondale: Southern Illinois University Press.

<sup>26</sup>

C.Cucos, op.cit.

15. Noreña, C. G. (1990), *A. Vives Bibliography*, Lewinstone, NY: Mellen Press.
16. Stanciu, I.Gh.(1976), *O istorie a pedagogiei universal si romanesti pana la 1900*, E.D.P., Bucuresti, pp.86-89
17. Urmeneta Fermín de. *La doctrina psicológica y pedagógica de Luis Vives*.
18. from [http://ro.wikipedia.org/wiki/Secol\\_de\\_aur](http://ro.wikipedia.org/wiki/Secol_de_aur)
19. <http://www.scribd.com/doc/12306436/jean-delumeau-civilizatia-renasterii-vol-2>
20. Tournoy, G. et al., eds. (1993), *Vives te Leuven*, Leuven : Leuven University Press.
21. The Worlds of the Renaissance(1965): Projects – Patricia Nardi William Harrison Woodward Studies in: *Education During the Age of the Renaissance, 1400-1600*New York: Russel & Russel, at <http://www.albertrabil.com/projects1998/nardi/woodward2.html>
22. Vives, J.L.*The Education of a Christian Woman. A Sixteenth-Century Manual*.Edited and Translated by Charles Fantazzi ,2000 Publisher: University Of Chicago Press
23. <http://plato.stanford.edu/entries/vives/>

## **PSYCHOLOGICAL PRE-REQUISITES FOR SUCCESSFUL APPLICATION OF INTERACTIVE METHODS IN THE EDUCATIONAL PROCESS**

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**Abstract:** *The following points have been studied: the psychological conditions and regularities of interactive communication and interpersonality interaction of teacher – learner – group in the educational process; the development of problem situations stimulating creative thinking and personality committed rationalization and acquisition of the learning material; subjective personality activity based on the respective motives, interests, personality attitudes, emotional and volitional experiences. The psychological-pedagogical analysis is the basis for drawing two conclusions concerning the following:*

- 1. The necessity for a significant increase in quality and expansion of teachers' psychological competence at all levels of the educational system and*
- 2. The necessity to expand the variety of research topics as well as the subjects and contents of contemporary pedagogical psychology.*

**Key concepts:** *educational process, interactive methods, innovation, interest*

### **Introduction**

Human mental and personality development is a complex dynamic process carried out in the conditions of social experience and through de-objectivization of material and spiritual values so far created by society. The acquisition of this experience is the prerequisite for the complete integration and successful fulfillment of personality in life. This specific feature of human development has generated the special activity which is destined to provide the necessary result of this process that is the pedagogical activity and its organized form: the educational process. The two-component structure of social experience itself determines the unity of the two interrelated processes of its realization: instruction and education.

Since the development of modern civilization proceeds more and more dynamically and on a large scale, the demands on the training of growing-ups continuously increases. This reflects on both the goals and the assessment criteria of the educational process results. It is not accidental that the care of the development and preservation of 'the human factor' is among the 21st century central priorities and it is defined as the century of the prospering self-fulfilled creative personality.

These objective processes in the word and European pedagogical sphere require adequate reorganization of the educational system in each country and at all levels so that it should meet the demands of contemporary development. The restructuring of education, together with the variety of organizational, management, personnel, conceptual, material, resource and technological changes, brings to the foreground the necessary higher quality levels of the educational process.

Their essence has two aspects. It concerns the organization and contents of the process of educational impact on one hand on another the way and dynamics of the personality' subjective perception, the learner's personality active involvement in the educational process and the pedagogical interaction in the teacher-learner-group relation. For this reason, modern reorganization of education should provide the following:

1. Intensification of the educational process based on enhanced intellectualization and socialization;
2. Optimization of the educational impacts according to learners' individual, age characteristics and development;
3. Improvement of the educational and development impact as a whole and significant improvement on the quality of education at all stages and levels.

This purpose requires innovations in the type of education towards problem and development orientation; new types of methods and techniques to provide problem situations stimulating learners' creative thinking, motivation activity and emotional and volitional attitude.

Speaking of innovations, we should point out that these changes should not be an end in itself. They should mark a new progressive beginning in the development of education and educational activities bringing them up high above the current traditionalism and mass practice. Innovations in the sphere of education should concern the goals, contents, methods, technology, form of education, system of management, pedagogical activity settings and style, educational-cognitive process organization and direction and a system of supervision and assessment of the results. In addition, at state level, innovations should affect the system of finance, provision of methodology and personnel, strategies of instruction and education presented in the curriculum, study programmes, standards, etc., i.e. the activities of both teachers and learners as well as of he society as a whole.

#### **Analysis on the problem**

A possible innovation to be introduced to the educational process is the application of Interactive Methods in teachers' work (IAM). The term originates from the concept of 'interaction' which in psychology means 'interaction and interrelation

between persons communicating in the process of a joint activity (the educational process in this case). This concept was introduced to social psychology and sociology by the theory of 'interactionism'. It was formulated by John Mead, an American psychologist, who at the beginning of the 20<sup>th</sup> century studied the characteristics of direct interaction between people, their interpersonal relations and value orientation in the process of joint activity. The interactionist approach, introduced to psychology, focused on the need to consider the individual differences and the effects of situational and environmental factors on personality's behavior and activity.

IAM application to the educational process (learning process) aims at providing the dialectic relation between acquired knowledge and personal experience, necessary for the training of contemporary learners, as well as at transforming acquired information into subjective knowledge of conscious and rationalized personality and social significance.

IAM successful application into education from technological point of view requires such organization of the educational process that should provide active involvement of each participant in the process and particular dynamic interaction with the teacher and the other members of the learners' group.

The active participation of the subject is connected with solving various problem tasks the performance of which involves all learners. It increases their interest, degree of motivated acts and rationalization of the learning material. It also stimulates the sense of personal responsibility and mobilizes learners' cognitive abilities and their skill for verbal presentation and self-organization. Thus, a new type of pedagogical interactions of greater emotionality and intensity is created. A productive communicative process is performed and complex(holistic) personality development is achieved.

This purpose requires **the development of a new type of pedagogical environment** of learners; active interpersonal activity, problem learning as well as optimal opportunities for motivated mobilization of the learners' knowledge, skills and total personality potential. An essential condition is the rationalization of the sense, the meaning and the benefit (the personality constructs of educational activity psychological structure) as well as the development of learners' abilities of self-organization and self-control in the process of their learning activity.

The direct contact of influence and interaction between the participants in the educational process in the interactive environment, created in this way, should be based on problem situations taking into consideration their temporal, special and functional characteristics. All this requires a new type of culture of pedagogical communication which should develop an atmosphere of commitment, mutual assistance, team spirit and cooperation based on humanism and anthropocentrism. They are grounded on problem and psychological regularities and processes which should be profoundly studied and purposefully guided and stimulated.

The readiness for complete interpersonality communication is a complex multi-componential process including mental development in several aspects. An important role here is played by the formation of a humanistic communicative

nucleus' of personality connected with the perception of the other persons as a value and on this ground building up one's own attitude towards them.

The aforesaid regularities mean that IAM should be applied in the conditions and on the background of a particular psychological-pedagogical situation.

We speak of a situation when the subjects in an activity purpose a goal achievable in the conditions of this particular activity, i.e. the situation arises on the 'man-environment' basis. It is a complex of conditions, objective circumstances, subjective demands and experiences which involves the subject and stimulate his/her personality activity guiding in to the required direction in accord to the goal. Thus, when IAM anre applied, the situation in the educational process is not only pedagogical but psychological as well. It includes a system of requirements and effects which determine learners' experience and behavior at the particular moment oriented to the goal.

These internal and external conditions should stimulate and mediate the subject's active participation and personality commitment to the learning process.

Parallel to the spatial, temporal and functional components of the situation, it should also necessarily involve the subject's subjective mental state which is reflected in his/her behavior before and during the situation process. All this transforms a pedagogical situation into a psychological-pedagogical one.

The application of such a situation approach to educational activity is a psychological-pedagogical condition for IAM successful application. It demands from the teacher to present the requirements to the subject in a precise, clear and well-motivated manner. They should be derived externally by the teacher or with the participation in the educational process. This pedagogical point plays a significant role for the outcome of the situation itself, particularly when the so called problem situations are concerned.

Problem situations, which are in the basis of problem developmental instruction, should include the following:

1. A controversy between circumstances and conditions for the performance of an educational task or activity which has more than one solutions;
2. A psychological model of the conditions stimulating the thinking process based on a particular cognitive need which is a form of the relation between the subject and object of cognition.

The problem situation determines the character of the subject's interaction with his/her environment and with the mental state of the cognitive personality in the conditions of the pedagogical environment which is controversial in its contents.

The rationalization of the particular controversy (the inability to solve a task without acquiring the necessary knowledge) provokes the need for more knowledge in order to solve the controversy.

The objectivization of the unknown in the problem situation by means of formulating the problem, the learner aims at solving, is the initial unit (psychological in its character) of mental interaction between subject and object in education. This interaction is most essential for the effective IAM application as it stimulates the subject to search for and attain the necessary solution based on the new knowledge

acquired through increased mental activity. This, on its part, determines the subject's productive and creative thinking in an interactive environment.

So far as the environment of the subject involves other individuals (the teacher, the group of learners, etc.), i.e. there is a certain social milieu, it is genetically primary to put the question to the other individual, or individuals, who through their active participation become mediators in the learners' development. Here, the role of the teacher is of crucial importance (it is not accidental that in pedagogical practice the effectiveness of learning is assessed by the number and character of questions asked by the learners).

So far as the specific nucleus of the educational situation is the demands set in it, their actualization is the pre-condition for mastering or transforming the situation itself. The exit from a particular situation based in the supersituational activity of the participants in the situation depends on the degree of subjective significance the learners apply to the solution (their participation) by means of the new demands the learners set to themselves.

From psychological point of view, the management (pedagogical guidance) of these processes, when IAM are applied by the teacher, draws out another two major constructs: motivation to perform educational activity and interest in the contents of instruction.

It is well-known that motivation serves as a fundamental psychological mechanism of personality activity. The latter itself is a condition for the initiative impact an individual has on the environment, on other people or on one's own self. The very expression of personality active depends on the person's motivation, value orientation and individual personality characteristics (temperament, character, self-awareness).

Motivation in high education however has different orientation from that in higher education. In high school, it is to provide the relation between new knowledge and its practical application on basis of the learner's personal experience towards his/her realization in life. In higher education, which trains students for specific professional realization, the relation of the acquired knowledge should be oriented towards their future professional activities.

The psychological climate of the class, the patterns of organizations among students, by the appreciation of the others, by the affirmation of some leaders, by the emotional and moral climate of the groups, by within the class, by the system of expectations and the criteria of value appreciation, by the teacher's fulfilment of the role of class leader; psychological arguments. Numerous objectives of the education process, explanations of learning, aspects of development and formation of the students, of the formation of their behaviours are being founded on psycho-social data (general, genetic, social, cognitive); managerial arguments. They regard the aspects underlined in the definition of the management, of its functions, of the role of the teacher (supervision, planning, organization, guidance, coordination, execution, administration, direction, control, evaluation, regulation, decision, and conciliation). By these arguments, the class management becomes a component of pedagogical sciences, being in direct relationship to the other disciplines which develop the

problematic of education. Therefore, the management of education/pedagogic management represents the pedagogic science, interdisciplinary elaborated, for management represents the pedagogic science, interdisciplinary elaborated, for studying events which intervene during a pedagogic activity (decision, organization, administration), being also a methodology of global approach – strategically optimum applied to education, to the system and the process of learning.

#### REFERENCES

- \*\*\**Managementul educational pentru institutiile de invatamant, Bucuresti: ISE, 2001*
- \*\*\**Manual de management educational pentru directorii de unitati scolare, Bucuresti: Editura Prognosis, 2000*

## VALUING THE INDIVIDUAL EDUCATION – FUNDAMENTAL PRINCIPLE OF CONTEMPORARY EDUCATION

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### **Abstract**

*Teacher's professionalization went in the last two decades through a period of major restructuring, being, among other components of the educational system, an object of general education reform.*

*This study aims to reinforce the idea of centering on the educated as a fundamental principle of educational reform. The curriculum centered on students has to be understood regarding the following aspects :*

- *Concept, theory, on the way to handle the educational-training process;*
- *Professional ethics: increasing the quality of teaching by valuing the subject of learning.*

*Assuming that the school's central aim is the training of individuals able to assume responsibility for acquiring skills, that the didactic process must be built around the participation of students at its training, we want to emphasize, through this study, the need for increasing student responsibility and autonomy in learning.*

**Key concepts:** *autonomy in learning, centering on the educated, (pupil/student), increasing student responsibility, training for continuous learning, competence paradigm.*

### **1. Curriculum centred on students**

Valuing the individual education is a fundamental principle of contemporary education. Even the etymology of the term "pedagogy" („pais, paidos"- baby, agoge - "driving") implies focusing on individual learners. Focusing on the educated is becoming not only a condition for quality and efficiency in the formative process, but also one of the most handy way of solving the numerous difficulties known to modern education: reduced motivation for learning, decreased degree of involvement in learning activities, routine and monotony in the educational process, etc. (Șoitu, Cherciu, 2006, pp.46).

Focusing on students must be understood under the following aspects:

a) *Concept, theory*, on the way to tackle the training process, with emphasis on human resource exploitation, in the sense of the pursuance of the interests, needs, aspirations of the educated;

b) *Professional ethics*: increasing the quality of teaching by valuing the subject of learning.

Today's teacher must renounce its privileges offered by the regulatory authority, transforming himself from a transmitter of knowledge to a facilitator of self-learning, direct knowledge, through exploration, he must *earn, not impose its authority gave by his function/status*.

In the current context, school aims to train individuals able to assume *responsibility for acquiring skills*. Thesis of cognitive flexibility (Spiro, 2001) highlights the existing potential of the knowing subject, the teacher having to determine which previous representations are necessary to achieve cognitive *compilation* (Anderson, 1996) of knowledge. Teaching-learning relationship acquires a new shade by the particularities of the informational society in the sense of the displacement of emphasis from the first component of the relationship to the last. Becoming one of the tasks of the learner, learning responsibility becomes a new target to be considered by the teacher alongside training the self-confidence and autonomy in learning. The teaching activity should be built around the student's participation in its training. The role of the trainer is to set the context, within which education is self-forming. Thus, in the perspective of ongoing training, education folds on patterns of an action located at the border between education and self-education.

The creation of new skills for the educated means not only the existence of these skills in the trainer, but also the ability to determine the educated to develop their skills himself, which raises the problem of careful teacher training, both on the segment of initial and continuous training.

Rethinking the system of developing and training of the teaching staff, ensuring an appropriate status for teachers and ensuring the proper functionality of the coordination and operationalization device of the reform are actual concerns nowadays (Maciuc, 2009, pp. 106).

## **2. Lifelong, autonomous learning – a mandatory goal for the initial training**

Often, the term "learning" is related to 'school'. But learning is not done only in school but also beyond, throughout an individual's life. In other words, learning is ongoing, continuous, in order to respond to multiple and diverse problems that people face. Everyone learns from others experience, but also from self-experience. We learn in an organized, coordinated, formal environment (school, university, etc.), but we also learn from semi-spontaneous experiences or even spontaneous, unorganized, incidental, non-formal or informal ones. Lifelong learning is a coordinated whole of human existence, and articulates all forms of education, including self-education.

In Romanian education system students' self-study resources are not sufficiently valued. Currently, concepts of learning and lifelong learning throughout their lives, are current concepts of sciences concerned with learning as well as education policy.

H. Siebert, notes that in the last decade of last century may be noted "an increase in value in overall policy of lifelong learning", a reality that must be understood as "a human resource and a coping strategy" (Siebert, 2001, p. 79).

Therefore, the reform should review the idea of permanent professional in education, training teachers from this perspective undergoing major reconsideration. Greater accountability for students in learning and self-autonomy development are objectives to be considered in building the teaching act.

The changes "will be important and fast growing. Each teacher will have to develop, since the initial training period, defense structures. After an initial period of training, all teachers should possess its continuing growth formula (Maciuc, 1998, pp.89).

In this regard, "self-learning, correlated with self-education, is not only the purpose of education, but also the effect of the whole teaching approach, from where the educator will supplement the facilitating conditions for context he designs (Joița, 2010, pp. 131).

### **3. Self-knowledge - an attribute of learning-centered educational process**

Assuming that self-knowledge can provide for each student a greater involvement in the learning process, it may lead to better results through the confidence given by the knowledge of their own potential, interests, skills, and their capitalization, it may cause mobilization and commitment to achieve independence in learning, to give more attention to the relationship between self-knowledge and self-learning. The importance of self-knowledge can be evidenced by the fact that it is a prerequisite for achieving self-control, self-education, and self-evaluation (D. Salade, 2000).

The literature attempts to define the concept of self-knowledge were numerous. R. Peron indicated the existence of a variety of terminology: *self-representation self-consciousness, self-perception, self awareness*, etc. (R. Perron, 1964, apud E. Bonchiș, 1997). In addition, the term self-knowledge has to be linked to other concepts: *self-image, self-assessment and self-evaluation*. As such, a distinction is necessary.

First we have to differentiate the self-knowledge (or self-awareness) from self-consciousness. The first must be defined and analyzed in terms of process, the second – in terms of product. The first is the cause, the second is the effect, with the possibility to reverse roles, because self-knowledge leads to self consciousness, and this, in turn, stimulates permanently, encourages the self-knowledge process (E. Bonchiș, 1997).

*The self-concept of the learner* is "a cognitive construct which includes all convictions and beliefs about themselves (and about the world) of the learner. Essentially, the concept itself is based on and through the individual taking full responsibility for its own decisions, to guide its life" (I. Al. Dumitru, 2007, p. 108).

For C. Stan (2001, p. 48) the self-concept, which represents the cognitive dimension of the ego, is defined as „the sum of the individual findings of a human subject, on his personal attributes and qualities”

G. Clauss considers self-image as "embodied expression of the way a certain person sees himself, is infected by desire, but also the way in which others evaluates that person" (G. Clauss, apud E. Bonchiş, 1997, p. 14).

Self-evaluation is the "ability of the student to develop and deliver valuing assessments on their skills and their academic performance on his own person in general" (C. Stan, 2001 p. 15). Self-evaluation leads to the development of the metacognitive processes, of self-correction, of the processes leading to the acquisition of new knowledge; training reflexivity on their work; ensuring progress of its work or its improvements (I. Cerghit, 2002).

Self-knowledge plays a key role in the development of self-introspect and permanent self-correction of student behavior abilities in the learning process, it is a prerequisite for self-education (self-education requires self-knowledge and training the consciously factor) because the aware and active participation of that educates is trained. It leads to the assertion of individual autonomy through a gradual transition from acknowledged coordination to independence, self-management.

The desire for knowledge and self-knowledge is an important prerequisite of all human personality and it is open to self-overcome, self-realization, so that that self-knowledge and self-education are simultaneously active and congeners.

I. Al. Dumitru (2008) presents some suggestions for teachers, necessary for guidance of students in achieving self-knowledge:

- Teachers must *attend, support, guide students in exploring their own ego*, they have to self-disclose, to understand the capabilities, both positive and negative qualities;
- Rather than offer solutions, the counselor-teacher should better try to find out what alternatives were previously used or experimented by the student in similar circumstances and whether or not they have given results. So, maybe in this way the teacher may better understand why previous attempts and efforts of its students have failed;
- *Asking questions* is a process to be used with caution. Open questions are more comfortable for students than closed questions (restricting opportunities for exploration of the Self), they allow greater freedom of action;
- The teacher should *listen carefully to students*, to encourage them to reflect and to describe their emotions, to present ideas and opinions; it is a good way to facilitate the exploration of Self;
- Special attention is also given to *nonverbal language*, students communicate not only verbally but also through nonverbal means (facial expressions,

looks, tone of voice, certain gestures and body movements, etc.). It is easier for us to censor the verbal communication than censoring nonverbal verbal communication;

– During training activities, the teacher may make *use of metaphors*. Using metaphors, the teacher can facilitate the cognitive process of students contributing to a better understanding of situations, problems. The teacher may ask students *to synthesize and summarize the themes and sub themes discussed and to consider* the role of methods and procedures used in that teaching session. The manner in which students summarize and synthesize allows the teacher to make decisions concerning future steps.

Self-knowledge requires continuous self-examination, self-evaluation. Therefore students should be required to pass in a systematic and consistent manner from analysis to introspect, from evaluation to self-evaluation, from critic to the self-critic and in general from knowledge to self-knowledge. We need therefore to increase individual responsibility.

To develop individual responsibility a number of factors are involved (Adriana Nicu, 2007):

- encouraging *success* - if we take into account the principle that success attracts success, we understand how important it is for students to live successful experiences. As long as the successful experiences are more common, the students will improve the image of themselves. It is very important to structure learning in a way that they can experience maximum success;

- in order to achieve learning, to think critically, there must be an acceptable level of *stress*. This level can be achieved if we take into account considerations such as: to formulate questions that place all students in a position to reflect on a problem, to encourage all pupils / students to answer questions and find answers to questions ask by themselves, to anticipate consequences (pleasure of success or fear of failure) to make known to the educated time limit for achieving the learning task in order to enhance its effort to succeed;

- the awakening and sustaining *interest* in everything new, different from what learners experienced before, to sensitize them to the concerns and personal aspirations on thinking and learning; the humor and enthusiasm of the teacher may also contribute to active involvement of learners in the activity.

These conditions prove very important to develop the student's self-confidence in the value of their ideas and opinions, but also of others. And also an important feature of intelligence is to bear ambivalence, paradoxes and contradictions.

Finally, "self-knowledge is important for us teachers, but also for learners. The self-knowledge is the base of student's individualization. Knowledge of educational needs of students is as important as professional knowledge of our needs " " (I. Soitu, R.D. Cherciu, 2006, pp.152).

#### **4. Consequences on initial teacher preparation from the perspective of asserting the self-organization, self-guiding skills**

Understanding the individual as a highly complex system, with maximum capacity of self-organization, provides new grounds for accepting and explaining individual needs to learn continuously, independent through the entire life.

Concepts of *lifelong learning, throughout whole life learning, self-directed learning, self-learning*, arose in the theory and practice of education and training the challenge of organizing new social and organizational frameworks in which to *learn*. They express the shift in specialist attention from the learning mechanisms in general to the school/academic learning mechanisms (Negovan, 2004). Progressive pedagogy, subject to the principle of "self-organization instead of school education" focused, from the eighth decade of the twentieth century, on the ideas of *self-determination, self-accomplishment, self-experience, self-organization* (understood in this context as "an alternative to the frozen bureaucratic structures of formal education system" (Siebert, 2001, pp. 28-29).

Researches have shown that as he progresses in the level of education, the individual becomes more able to self-direct in learning, becoming more able to influence their learning outcomes.

In contemporary approaches to learning and especially in academic learning approach, the self-directing learning ability has been, though not always explicitly, in relation to the personal autonomy.

The training requirements for an autonomous individual, capable of self-realization, impose to the institutionalized training system the aim to prepare him for *autonomy* (Neacșu, 1996, pp. 6) from the first steps he takes in the system of *guided learning*. The independent, autonomous learning, requires also a certain mental instrumentation, a personality profile and especially a specific learning experience, it also requires specific resources – its identification, measurement, control and development entered the field of interest of many researchers (psychologists, pedagogues, sociologists, academics and practitioners) since long time ago and are still arousing further interest because its aim to enrich scientific knowledge in a practical direction (Negovan, 2007).

Living in a knowledge society, individuals are placed in a position to permanently structure their own ways for access information and their ability to select information. Training is in this context, a modeling action of the educated that complies with current society demands. The „*training*” concept has enabled closer links between initial training activities conducted in schools with professional development activities.

Professionalization actually means occupational skills training, taken as imperatives in each professional field. Training is a way to enable the educated to work in a flexible manner in the field of study in which it is formed. This approach defines in a different manner the training of teachers, where the term training emphasizes the need for a professional structuring ability able of self-modulation

Deepening the professionalization of teaching analysis of students - future teachers, at least two formative directions can be distinguished from the curricular perspective: one - that of building a profile of desirable competence in teacher

training and further development of outlined skills, and another - the scientific practice of occupation (Joița, 2008, pp.18).

In this sense, they are required to demonstrate cognitive, social-relational, managerial, didactical skills, and are asked to choose between the profitable strategic options in training his students.

In portraying the profile of future practitioners in educational areas the following *objectives* should be considered:

- a. focusing on skills development; developing mental flexibility, building elastic structures that enables future practitioners to adapt rapidly and effectively in various educational situations;
- b. awareness and satisfaction of different needs of the educated, individualization and personalization of learning;
- c. centering on active, experiential, constructivist learning;
- d. promoting self-confidence;
- e. knowledge and assimilation of theoretical approaches on the educational process, on the teaching language (focusing on means of *interpretation, argumentation, settling, transferring, reflecting*, focusing on developing *critical, divergent thinking*, on *comparative analysis*, etc.) identification and argumentation (thorough cognitive effort by staff) of education trends and needs in the Romanian educational system;
- f. un-constructing and re-building the model of internalized teacher from traditional teaching practices;
- g. developing social and relational skills, problem solving skills, through networking and interaction tasks, developing empathy and understanding from colleagues and their opinions;
- h. understanding the idea that the teacher, in addition to teaching problems, is faced by many other issues (opening to classroom management), he must fulfill multiple roles (and not only that of the transmitter of knowledge);
- i. expressing an open attitude to innovation, to the new, a receptive attitude to the new requirements and changes in education;
- j. affirming the emotional side of the educated personalities, awakening emotions of joy, excitement in the act of learning.

Curricular change, in terms of autonomous teacher can take account of the following directions:

- a. an innovative teacher can be independent in its work in the classroom,
- b. can act as a "champion of innovation" among colleagues,
- c. may be an active factor in implementation of innovations produced by others (Hoyle, apud Niculescu, 2000, pp.189).

#### REFERENCES

1. Anderson, J.R., Reder, L.M., Simon, H.A. (1996). *Applications and Missaplications of Cognitive Psychology to Mathematics Education*<http://www.act.psy.cmu.edu/personal/ja/missapalied.html>

2. Cergit, I. (2002). *Sisteme de instruire alternative și complementare. Structuri, stiluri și strategii*. București: Editura Aramis
3. Doron, R., Parot, F., (1999) *Dicționar de psihologie*, Editura Humanitas, București
4. Ion Al. Dumitru (2008). *Consiliere psihopedagogică. Bazele teoretice și sugestii practice*, Ediția a II-a, Polirom, Iași
5. Ion Al. Dumitru (2007) „Specificul învățării la vârsta adultă” în: Paloș, R., Sava, S., Ungureanu, D. (2007). *Educația adulților. Baze teoretice și repere practice*. Iași: Editura Polirom
6. Joița, E. (coord.) (2008). *A deveni profesor constructivist: demersuri constructiviste pentru o profesionalizare pedagogică inițială*. București: E.D.P.
7. Joița, E. (2010). *Metodologia educației. Schimbări de paradigmă*. Iași: Institutul European
8. Maciuc, I. (1998). *Pedagogie: formarea continuă a cadrelor didactice*, Editura Omniscope, Craiova
9. Maciuc, I. (2009). *Pedagogia diferențiată pe vârste*. Craiova: Editura Sitech
10. Malița, M. (2001). *Zece mii de culturi, o singură civilizație. Spre geomodernitatea secolului XXI*. București: Editura Nemira
11. Neacșu, I., Stoica, A., (1996). *Ghid general de examinare și evaluare*, MEN, București: Ed.Aramis
12. Negovan, Valeria. (2004). *Autonomia în învățarea academică – fundamente și resurse*. București: Editura Curtea Veche.
13. Negovan, V. (2007). *Psihologia învățării. Forme, strategii, stil*. București: ditura Universitară
14. Nicu, A. (2007). *Strategii de formare a gândirii critice*. București: E.D.P.
15. Niculescu, M. R. (2000). *Curriculum educațional*. București: Editura PRO HUMANITATE
16. Salade, D., (2000), *Independența individului și obiectivele educației*, în „Studii de pedagogie aplicată”, Editura Presa Universitară Clujeană, Cluj-Napoca.
17. Siebert, H. (2001). *Pedagogie constructivistă*. Iași: Institutul European
18. Stan, C, (2001), *Autoevaluarea și evaluarea didactică*. Editura Presa Universitară Clujeană, Cluj-Napoca. Zlate, M, (1997), *Eul și personalitatea*. Editura Trei, București.
19. Șoitu. L., Cherciu, R. D. (coord.) (2006). *Strategii educaționale centrate pe elev*. Buzău: Alpha MDN
20. Spiro, R.J. (2001). *Cognitive Flexibility. Constructivism and Hypertext :Random Access Instruction for Advanced Knowledge Acquisition and ILL – Structured Domains*<http://www.ilt.columbia.edu/ilt/papers/Spiro.html>

## PERCEPTIONS AND OPINIONS REGARDING THE ROMANIAN EDUCATION'S REFORM OF CURRICULUM

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### **Abstract:**

*The study Perceptions and opinions on Romanian education's reform of curriculum represents a synthesis of the ideas of an impact study, which has been contoured as part of an ampler investigative approach and finalized with the elaboration of the PhD thesis having the theme The curriculum's planning and management at the level of school organization.*

*The impact study on the curricular reform was realized on a sample of 280 subjects (140 persons belonging to the didactic staff, 100 school managers and 40 parents), which constitutes a sub-sample as part of the theoretical and empirical research that was unfolded from 2006 to 2009. The systematized ideas and those concerning the institutional reform and the methodological conceptions aiming the curriculum's management, contour the national curriculum's audit, which underlines the elaboration of an operational methodological frame, in the field of planning and managing the curriculum.*

**Key concepts:** *the curricular reform, the curriculum's audit, the institutional reform, the principle and strategy of the curricular decentralization, the curriculum focused on pupil.*

Given that a national curriculum's audit represents the ideological backing for the curricular reform's operational level, we have considered to be opportune the use of a relevant investigative device in unreeling the empirical study: three questionnaires (one for the subjects belonging the didactic staff, one for the school managers and one for the parents) and two focus-groups (one with the subjects belonging to the didactic staff and one with the school managers). The data that had been accumulated by combining the three methods, has been undergone to a comparative analysis between the categories of subjects and has been interpreted by referring to the subjects' curricular culture and to the curricular context where the curriculum is being institutionalized.

The essential information that has been achieved in this manner, it is accompanied by comments and conclusions, leading to the following results:

▪ The quantitative analysis of the appreciation degree of adequating the official curriculum to the national characteristics and to make it permeable to the evolution of the states being members of the European Union, it is synthesized through the following percentage distributions:

a) The adequacy of the school curriculum to the national characteristics:

Numerical values	Didactic staff		School managers		Parents	
	Absolute frequencies	Percentage frequencies	Absolute frequencies	Percentage frequencies	Absolute frequencies	Percentage frequencies
Small value*	17	12,14%	5	5%	6	15%
Medium value**	69	49,28%	30	30%	20	50%
Big value***	54	38,57%	65	65%	12	30%
NR	-	-	-	-	2	5%
Total	140	100%	100	100%	40	100%

\* Summation of the numerical values 1, 2, 3, 4

\*\* Summation of the numerical values 5, 6, 7

\*\*\* Summation of the numerical values 8, 9, 10

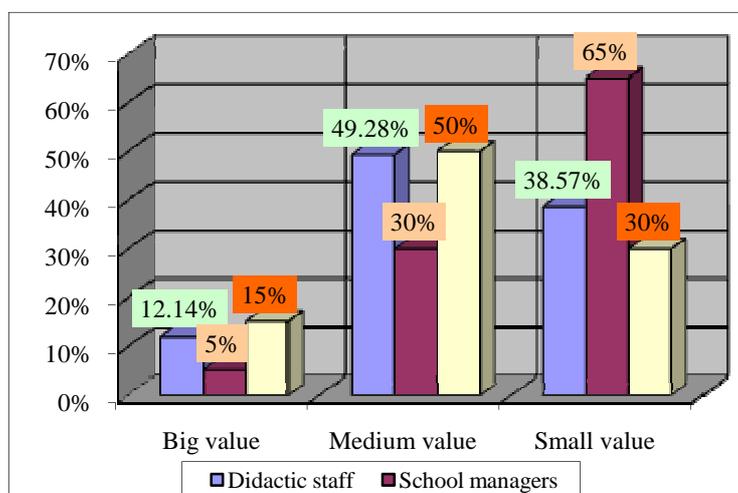


Fig.1. The histogram of the numerical values' percentage distribution, which quantifies the subjects appreciations concerning the adequacy of the school curriculum to the national characteristics

b) The adequacy of the school curriculum to the international evolutions:

Numerical values	Didactic staff		School managers	
	Absolute frequencies	Percentage frequencies	Absolute frequencies	Percentage frequencies
Small value*	20	14,28%	12	12%
Medium value**	89	63,57%	59	59%
Big value***	31	22,14%	29	29%
NR	-	-	-	-
Total	140	100%	100	100%

\*Summation of the numerical values 1, 2, 3, 4

\*\*Summation of the numerical values 5, 6, 7

\*\*\*Summation of the numerical values 8, 9, 10

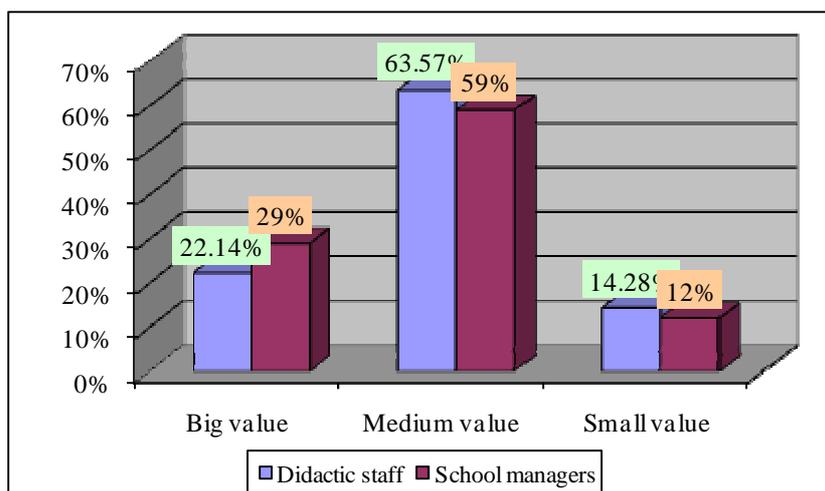


Fig.2. The histogram of the numerical values' percentage distribution, which quantify the subjects' appreciations regarding the school curriculum's adequacy to the international evolutions

This data is emphasized by the statistical value of the differences' significances (the t value, which is achieved by using the formula from the Z test):

The variable	The group	Nr. of subjects	The average	The standard deviation	The averages' difference	The t value	Significance
The curriculum's adequacy to the	Didactic staff	140	6,65	1,92	-1,06	-4,41	p <0,01
	School managers	100	7,71	1,66			

professional insert's needs	Didactic staff	140	6,65	1,92	0,25	0,74	NS
	Parents	40	6,40	1,93			
	School managers	100	7,71	1,66	1,31	3,76	p <0,01
	Parents	40	6,40	1,93			
The curriculum's adequacy to the international evolutions	Didactic staff	140	6,05	1,78	- 0,21	-0,84	NS
	School managers	100	6,26	1,89			

Fig. 3. The table of the statistical significance of the differences between the averages scores, which expresses the subjects' perceptions regarding the national curriculum relevance and its adequacy to the international evolutions

The analysis of the differences' significance between the averages scores is relevant for two significant differences concerning the first variable (between the school managers and the didactic staff – the statistical value of 4,41, for the significance threshold of 0,01 and between the school managers and parents – the statistical value of 3,76, for the significance threshold of 0,01), which are susceptible of a series of comments:

a. the appreciation to a greater extent of the actual school curriculum (from the perspective of adequacy to the national context), by managers up against the didactic staff, is being related especially to the expectations and interests of these categories of subjects.

The managers wish for curricular changes in a lesser degree; this fact can be explained through the additional efforts in the institutional management, which are generated by the curricular change and related to the radical mutation of legislation and to the didactic staff's motivation in order to accept the change. The didactic staff wishes for changes to a greater extent, from the perspective of the school curriculum's reorganization, especially by depleting the school programs and the consequence of the pupils' examination methodology, in order to entry into a superior degree;

b. the significant difference between managers and parents is being related to the factor represented by the curricular culture, at which level a broader distance manifests itself between the two categories of subjects and about the status and expectations of these categories from the national curriculum.

As far as the second variable is concerned, there have not been registered significant differences between managers and didactic staff, which represents the same optics regarding the relevance of the actual school curriculum up against the international evolutions. The low averages that had been achieved for this variable indicate two aspects:

– unfavorable opinions from this point of view on the national curriculum, which represent the subjects' expectations of curricular change, within the meaning of adequacy especially to the curricular practices;

– the necessity of curricular reorganization in accordance with the international educational directions and practices, to a greater extent than by reporting to the national context.

▪ By systemizing the subjects' answers, which refer to the positive aspects of the curricular

reform appreciated to the utmost extent, and by generalizing them as part of the curriculum's general orientations, we have achieved the following percentage data:

The variable	Didactic staff	School managers	Parents
The approach centered on pupil	69,28 %	77 %	40 %
The curricular decentralization	64,28 %	68 %	50 %
The curriculum's flexibility	47,85 %	52 %	35 %
The unfolding of some differenced and personalized curricular tracks	50,71 %	63 %	50%
The curriculum's transparency	35,71 %	24 %	40 %
The democratization of the teacher-pupil relationships	20, 71%	17 %	15 %

Fig. 4. The table of the percentage distribution of the answers aiming the common positive aspects of the curricular reform, which had been indicated by the categories of subjects

The answers of the didactic staff and school managers have been guided by the paradigm of the curriculum centered on pupil and by the curricular decentralization principle, emphasizing their adhesion to the values of the new curricular culture and the importance of implementing decentralized curricular segments, in order to ensure pupils' development.

Regarding the indicator *the approach centered on pupil*, we have registered significant differences between didactic staff and parents, and between school managers and parents. The intensity distance of capitalizing the curriculum centered on pupil is related to the curricular culture's level and the subjects' representations on the curricular process. Thus, a higher level of the curricular culture (as far as the managers and the didactic staff are concerned) generates attitudes of accepting the curricular reform's major orientation at an operative level: the curriculum centered on pupil.

*The curriculum's flexibility* is appreciated to a significantly greater extent by the school managers, in comparison to parents. This significant difference can be explained by referring to two variables:

– the perceptions and representations of the two categories of subjects on the flexible curriculum. If parents have favorably appreciated the school curriculum's quality to be transposed in differenced and personalized curricular segments, it means

that the property of the curriculum's flexibility is not adequately perceived; which can be related to the curricular culture's level;

- the possibility of foreseeing in the curricular practice this property's materialization, especially through the optional curriculum. For this reason, managers have significantly better appreciations on the school curriculum's flexibility, and parents are more skeptical regarding it.

The principle of curricular decentralization is also capitalized in parents' answers, even they are not acquainted with the terminological code of the curricular reform. Appreciating the partnership in elaborating the optional curriculum and valorizing the curricular programs in the area of the curriculum at the school's decision, emphasize parents' curricular adhesion.

- As far as the didactic staff is regarded, the negative aspects of implementing the curricular reform are:

- the gap between the reform's strategy and the curricular practice (70,71 %);
- the lack of reorganization of the curricular programs, within the meaning of depleting them (67,14 %);
- the inconsequence of the evaluation methodology, in order to entry a superior educational degree (59,28 %);
- the lack of a rigorous control on the alternative manuals, which lead to the approval of some poor didactic and scientific manuals (52,14 %);
- the decline of the teacher's authority (35, 71%);
- the irrelevance of many programs in order to improve the didactic staff (28,57 %).

The school managers' answers have been centered especially on the following aspects:

- the dysfunctions between the reform's strategic directions and the implementation process (59 %);
- the lack of some operational measures of the reform, due to the political factor's involvement, which led to inconsequence as part of the reform (54 %);
- the repletion of some school programs (49 %);
- the inconsistency of the evaluation methodology, in order to entry a superior educational degree (41 %);
- the methodology and the practices of evaluating and approving the alternative manuals (31%);
- the irrelevance of many programs in order to improve the didactic staff (29 %).

Parents' answers for this item have been grouped around four major aspects:

- the frequent changes at the level of pupils' examination methodology in order to entry a superior educational degree (53 %);
- the lack of reorganization through depletion regarding the school programs (50%);
- the wide gap between the theoretical aspects and those practical belonging to the curricular reform (45%);

- many alternative manuals of poor scientific and didactic quality (40 %).

The common negative aspects mentioned by the categories of subjects, which have been generalized after the punctual answers' analysis, have a bigger or a smaller proportion, based on the way it directly influences the subjects' activity or it negatively influences the expectations' accomplishment. This finding justifies some of the significant differences between answers, which have been emphasized through the statistical analysis:

a. regarding the variable *the inconsistency of the evaluation methodology*, the significant differences between didactic staff and managers can be explained through the bigger impact this aspects has on didactic staff's activity and on parents' expectations (requiring frequent changes of the taught and evaluated curriculum).

b. regarding the variables *the lack of reorganization of the curricular programs* and *the gap between the reform's strategy and the curricular practice*, the significant differences between didactic staff and managers can also be interpreted by referring to the direct influence on the specific activity. The didactic staff has to resolve the lack of correspondence between the large volume of knowledge foreseen in the curricular programs and the promotion of learning centered on pupil, as a curricular orientation.

c. regarding the variable *the gap between the reform's strategy and the curricular practice*, we have registered significant differences between managers and parents. Referring to the other variables comparatively analyzed, this difference contravenes parents' perceptions, who have appreciated to a greater extent the reform's negative aspects. By holding solid information about the curricular reform's theoretical and methodological frame, the school managers were able to notice the gap between the strategic level and the practical one.

The negative aspects that have been identified generally constitute the start in order to issue some opinions aiming the curricular reform's improvement.

▪ The essential directions and modalities in order to improve the curricular reform, at the level of curricular policies and practices, are:

a. the reorganization of curricular contents, within the meaning of removing the accent from the declarative contents to those procedural (60,71%);

b. the preponderant use of heuristic strategies of training, in order to facilitate the active and autonomous learning and the self-training (54, 28%).

c. the increase of the national curriculum's weight (50,71%);

d. the careful selection of the alternative manuals (45%);

The school managers' answers for this item have mostly emphasized the following strategies and modalities (item nr.17- questionnaire nr.2):

a. the increase of weight regarding the activities of educational partnership, as part of the extracurricular activities, including the involvement of the informal education's factors and those belonging to the local administration as far as the projection, implementation, monitoring and evaluation of the curricular programs realized in this context are concerned. This modality has been mentioned by a significant number of school managers (67 %);

- b. the increase of weight regarding the curriculum at the school's decision (52%) and the application of some measures concerning the insurance of quality at this level, through:
- the substantiation of some curricular programs on a rigorous analysis of the educational needs (56%);
  - the application of some adequate strategies in order to streamline the curricular projects' implementation (66%);
  - the use of some training strategies which are alternative and complementary to those used as part of the nucleus curriculum (52%);
- c. the optional curriculum's planning in a modular and integrated vision, as an alternative modality of curricular organization, having as central argument the formative effects on pupils (51%).

The didactic staff has mentioned strategies and modalities which directly reflect on the training and educational process, aiming the curricular components (with accent on contents) and the documents which regulate the curricular process. The school managers have insisted on adopting and applying some strategies belonging to the curricular decentralization and improvement of the mechanisms in order to implement and monitor the curricular programs' quality, especially those from the area of the curriculum at the school's decision, which directly affects the managerial activity.

#### REFERENCES

1. Bennett, N. (coord.) (1980). *Open plan schools: teaching, curriculum, design*. NFER Publishing Co, Ltd for School Council.
2. Bunăiașu, C.M.(2009). *Proiectarea și managementul curriculumului la nivelul organizației școlare – teză de doctorat, coord.științific: Prof.dr. Dan Potolea*.
3. Hargreaves, D., Hopkins, D. (1991). *Curriculum and Assessment Reform*. Milton Keynes: Open University Press.
4. Joița, E. (2006). *Instruirea constructivistă – o alternativă. Fundamente.Strategii*. București: Editura Aramis.
5. Maciuc, I.(2006). *Pedagogie .Repere introductive*. Craiova: Editura Sitech.
6. Negreț-Dobridor, I. (2007). *Teoria generală a curriculumului educațional*. Iași: Editura Polirom.
7. Niculescu, R.M. (2003). *Teoria și managementul curriculum-ului*. Brașov: Editura Universității Transilvania.
8. Potolea, D. și Manolescu, M. (2005). *Teoria și metodologia curriculumului*. M.Ed.C.: Proiectul pentru Învățământul rural.
9. Pratt, D. (1985). *Curriculum Design and Development*. San Francisco: Hartcourt – Brace.
10. Preedy, M. (1988). *Approaches to Curriculum Management*. Open University Press.
11. Vlăsceanu, L., Neculau, A., Miroiu, A., Mărginean, I. și Potolea, D. (coord.). (2002). *Școala la răscruce. Schimbare și continuitate în învățământul obligatoriu. Studiu de impact*. M.E.C, Consiliul Național pentru Curriculum,Educația 2000+ . Iași: Editura Polirom.

## CULTURAL INTEGRATION – AN ASPECT OF SOCIAL INTEGRATION

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### **Abstract:**

*Social integration is made by appurtenance and unforced participation of the individual to a set of norms, values and common attitudes of the group. Cultural integration is defined as a process of accomplishing a correspondance or compatability among norms of the same culture. This is a process during which the members of an accepted society reject or modify items that have been difused from other cultures.*

*We anticipate that, in the near future, educational programmes will be infused with authentic values which can be found in all cultures of the world. As cultural interactions will increase, students as well as teachers will find it easier to initiate programmes of development based on the diversity of cultures. The growth of globalization on an economical scale brings changes in all human spheres: personal, social, cultural.*

**Key concepts:** *socialization, integration social, integration cultural, school, educational programs, cultural models*

### **1. Introductive considerations**

Starting from the idea according to which *the man is a social and cultural being*, we assert that the relation between society and culture is one of mutual influence. On one hand, cultural phenomena take place in society, the state of culture being conditioned by the laws of the global social system; on the other hand, society is influenced, in its development, by the cultural level of the members it consists of. For E. Cassirer, the man is not that much "a rational animal" as it is a "symbolic one": „The entire spiritual behaviour objectivised in various spheres of culture is symbolic; the man is a symbolic being, and culture, as an objectivisation of the spiritual activity characteristic to human beings, is a compact treasure of symbols" (apud Antonesei, 1996, p. 20).

*Socialization* is the fundamental process of passing culture and social organization to future generations, maintaining the continuation, stability and perpetuation of society. The process of learning the language, acquiring norms and values, taking over joint traditions, approved values and beliefs give children and young people the chance to take part in their common social life.

We can see socialization as a process of interactive communication of values, norms and models of behaviour that are characteristic to a group or a society. This process unfolds during the entire life of an individual. A human being senses the influences of the environment he lives in according to his own way of thinking. The man has the availability to perceive the influence of the socialization factors and to structure behaviour according to social requirements. Generally speaking, socialization is the process along which an asocial being (who does not master the meaning of the given social structure and does not systematically behave the same as most of the members of that collectivity) becomes a social one (corresponds to the average type of individual in the collectivity he belongs to).

The process of socialization prepares an individual for the social stimuli, develops his abilities and the consciousness of assuming social obligations that are associated with the rights given by the social and cultural context. From the point of view of the society, socialization represents the individual's way toward culture, the process through which the man, dependent on the social and psychological influences and interactions he is subjected to, projects a course of evolution which he could follow and along it he becomes a functional member of a social community able to control his own attitudes, behaviour and conduct. From the individual's point of view, socialization refers to the accomplishment of the potentialities of the personal growing and development, his transformation from a mere specimen of the homo species into a personality. Socialization is the process along which young people that are part of a certain culture acquire the rules, traditions and types of interactions that are accepted by the society they are part of.

We can approach socialization differently (Boudon; Besnard; Cherkaoui; Lécuyer, 1996, p. 248):

- *From the perspective of a determinist vision:* the individual is considered to be a passive being with a kind of behaviour that is reduced to reproducing certain acquired patterns;
- *In a more flexible conception:* the individual is endowed with a relative autonomy which makes him able to adapt the already acquired skills to the situations he has experienced and even to modify, if there is need, the interiorized norms and values according to the problems he has to identify and then solve.

There can be distinguished several forms or types of socialization:

1. *Primary socialization* assumes the humanization of the individual (as a rule, the family is the collectivity in contact with which primary socialization occurs);
2. *Secondary socialization* assumes going through certain processes in order to acquire a plurality of „social egos” or „social identities” - while it interiorizes, it internalizes social roles, too;

3. *Continuous socialization* is the process of transmitting and acquiring cultural models and norms all along an individual's life (it reflects the need for permanent education of the individual, including during its adult life, of new norms and values);

4. *Anticipative socialization* involves the learning of values, kinds of behaviour and beliefs by an individual from a group he becomes part of (the goal is that of facilitating the transition to a new status or group);

5. *Resocialization* refers to learning a new set of values, beliefs and behaviour different from the previous ones; a person that experiences resocialization must forget what is old and learn what is new (we all experience resocialization along our entire lives every time we change our status or group we belong to).

We consider that socialization is better understood in relation with other psycho-social processes: *imitation* (reproducing other people's behaviour), *social adaptation* (the adequacy of an individual's behaviour to his statuses and roles of the social structure he is included in), *cultural integration* (the presence of an individual inside a culture, subculture and counterculture where he assimilates values, styles of life, characteristic symbols and norms that make the basis of some groups solidarity), *social integration* (the interaction between an individual and the society through which social balance is acquired).

The representatives of sociologic phenomenology assert that people are actors on the social stage and they experience the world they live in as a natural and cultural one, as an intersubjective world. For A. Schütz, the social world is a world of the common sense which is made through the cultural, intersubjective and socialized character of knowledge (apud Stănculescu, 1996, p. 86).

Socialization is different in different social classes. Quoting B. Bernstein, I.I. Ionescu speaks about differences of speech, cognitive style, of defining the world and the self, according to the appurtenance to a certain social class (Ionescu, 1997, p. 23). There are stressed two kinds of codes:

- *Limited code*: particular meanings, syntax rigidity, limited alternatives of expression, limited vocabulary, limited usage of adjectives, adverbs, reduced versatility in structuring the phrase;

- *Elaborate code*: the richness of expression forms, sentence complexity, numerous alternatives, extended self-adjustment, subtle choice of adjectives, and usage of an expressive symbolism that allows differences in details.

However, differences among children should not be a handicap; every society has different social groups. Validating the cultural arbitrariness that it inculcates, school oscillates between the legitimacy of the social inequality created outside it and the methodological individualism. Even if cultural price does not matter anymore education cannot ignore its cultural function.

*Cultural integration* represents only a side of integration, the latter being a concept that approaches several dimensions (social, political, and professional). It is considered that, at a large scale, „ integration means the unification and fusion of two or several human groups that keep equal social and political positions. Integration will

give rise to a new culture and not to a forced assimilation of one by the other. ” (Cucoş, 2000, p. 214).

*Multiculturalism*, a problem connected to the ideology of handling cultural diversity that is seen as a discourse of late modernity, represents the integration of minorities into a society dominated by the majority. The concept names simultaneously: a political ideology, a social movement, a philosophical trend, a domain of academic studies. Multiculturalism is not the enemy of European universalism but a different form of it. The thing that unifies multiculturalism and European universalism is the conjoint will of placing a culture above the power of the state or the interests of a social group. Multicultural societies are groups with different nationalities, religions, cultures and ethnic appurtenance, that live on the same territory but which do not necessarily interfere with each other. This is the case of the societies inside which minorities are not always accepted or taken into consideration but are passively tolerated.

B.A. Marlow and L. Page considered multiculturalism as the best product of the class mosaic and thought that „cultural differences affect learning” (Marlow; Page, 2005). A very clear line between the multiculturalist positions that favours „difference”, „ghettoisation” and pluralist positions that favours values assimilation and integration. Multiculturalism stresses the difference and conditions the individual that belongs to a cultural minority to see his relations with the others as „we” and „they”. If here the stress is on what separates not on what brings together, in pluralism difference is accepted and encouraged.

However, we can find some common points; at different levels (methodological, political, cultural and social) multicultural approaches cross pluralism that asserts politically and epistemologically at the same time with postmodernism even though its conceptual roots are older.

K.T. Henson approaches multiculturalism referring to the teachers’ attitudes and their learning and teaching practices that support the academic and social success of all cultures’ members: „Multiculturalism admits that each student has his/ her own inheritance and a right to it. Multiculturalism admits that even if there are different cultures and languages, there must be equal opportunities to success in the class and teachers should make efforts to accommodate members of different cultures” (Henson, 2004, p. 4).

*Transculturality* is closely connected to the process of creating a new diversity. In fact this is about a different approach of the identity construction of individuals and communities, approach that facilitates the cultural dialogue to the prejudice of the conflict between cultures and civilization.

*Interculturality* includes all the phenomena that appear when two cultures meet. The intercultural approach is focused on cooperation; it stimulates adjoint actions, interaction, chance and reciprocity. The intercultural perspective of understanding education structures an open cultural identity that protects changes, respects differences, accepts valoric equality of cultures etc. The intercultural perspective can act as premises for cultural integration. Without being a target in itself

interculturality is the desirable result of the inner process of the multicultural community self-adjustment.

## 2. The specificity of cultural integration

Being shaped by the cultural atmosphere we live in, each of us perceives the world in a particular way. The symbolism of hues, colors, sense of touch or time and space perception, the way of seeing life and the world are all culturally shaped. The socio-cultural integration is conditioned by these aspects from which a range of norms and behavioural rules come.

*Social integration* is a complex idea which assumes different things for different people. For some, it is a positive goal, which implies equality of chances and rights for all human beings. In this case integration means improving chances of life. For others, integration may evoke the image of imposition and conformity. There should be underlined that for a different category of people the term in itself does not necessarily imply a desirable or undesirable state. It is merely a way of describing models of human relations in any given society.

Social integration is made by appurtenance and unforced participation of the individual to a set of norms, values and common attitudes of the group. Social integration assumes the accommodation and conflict solving between aspirations and behavioural attitudes, among individuals, among individuals and group, among groups and society.

Efficient communication among people is capable to ease integration, especially when the stress is on the metacognitive competences. There can be said that „if there is a situation of interpersonal communication among members of different cultural groups, then this interaction can be termed intercultural communication” (Litters, 1995, p. 20). As a subject, intercultural communication is enframed among culture sciences, next to anthropology, culture, ethnology, etnolinguistics and ethnopsyoanalysis. It benefits by the influences derived from several fields of knowledge.

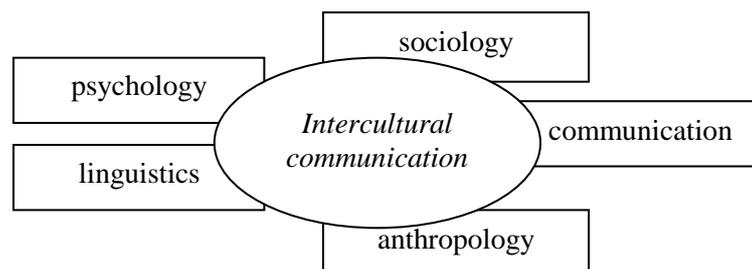


Fig. 1. Influences on intercultural communication

Intercultural education is the one that peacefully supports the social integration of minority groups which must not give up their own identity. Inside the mosaic cultures of today we must accept the idea that any socio-cultural group can

contribute to the enrichment of their community life by changing identity elements, through dialogue and involvement of all multicultural community members.

In close connection with social integration, cultural integration vary from perfect concordance to non-concordance among values of a culture (for example, when a culture pretends to all its groups and categories to practice an unselfish behaviour and a competitive one at the same time). As a rule, *cultural integration* is defined as a process of accomplishing a correspondance or compatability among norms of the same culture. This is a process during which the members of an accepted society reject or modify items that have been difused from other cultures.

The transmission of norms, traditions, values, concepts or ways of life by the group or by the society regard the integration of the individual in its structures, that is the assurance of order and social stability, which are essential in any collectivity functioning. For example, the means of socialization are common to all the individuals of a group but they differ from one society to another according to its historical, cultural, religious and social particularities. In habitual circumstances, the more the integration of the individual in the cultural system is supported the more efficient its contribution to the coherente functioning of the society will be. In the same way, the better the individual masters cultural competences, the easier integration is accomplished.

Cultural competences refer to the abilities of interacting efficiently with people that belong to different cultures. T. Cross, from the University of Portland, develops a *cultural model* that sets on a scale a series of *competences* (from the lowest to the highest level):

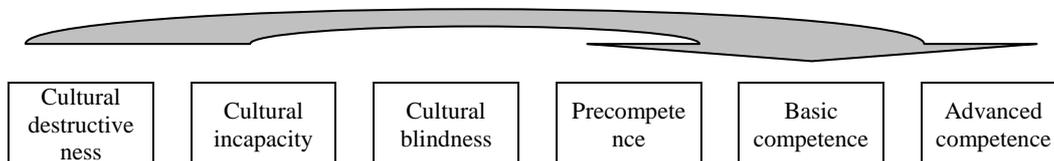


Fig.2. *Types of competences characteristic for the cultural model proposed by T. Cross*

By operationalizing the characteristic significance of these types of competences there come the following:

- *The advanced, progressive competence* engages variety and cultural differences;
- *The basic competence* accepts and admits values and differences, assures the conditions for the manifestation of cultural differences;
- *Pre-competence* admits its own cultural faults, tries to correct them and acknowledges the importance of cultural differences;
- *Cultural blindness* applies to those who „are blind” or „cannot distinguish colour”;
- *Cultural incapacity* applies to those who are not capable of accept and react in relation with the cultural diversity that can be found in a group;
- *Cultural disruption* refers to culture in an anticultural manner and assumes a negative relation with other cultures that it tries to eliminate.

Starting from the cultural inconsistency of school population and society, as a whole, standardized on race, ethnics, religion, gender and social class, the educational activities that school has submitted must give value to cultural diversity. Educators that teach in multicultural classes „must cope with the challenge of building an adequate environment which can facilitate reaching high standards of academic acquisitions for all students” (Butnaru, 2008, p. 537).

As a symbolic aspect of human existance, culture individualizes and sets us apart in relation with the other individualities, but it is also the one that brings us *by* and allows us to *be together* with other people, *interacting* and *changing* or *shifting* a number of ideas, norms, rules, models, principles, etc. Education helps us know it and recognize ourselves in it but also know and respect what is characteristic for other cultures. In order to give equal chances to all cultures so as each culture and identity could develop, education must respect differences and promote equality. This contributes to overcoming social inequalities.

It would be good to have room for forums and discussion, to share knowledge, feelings and experience with people of different cultures. This talking must be arranged as constructive dialogues having as a goal the identification of common solutions for the outrun of social barriers and common values for common life.

The important task of school is not limited to the formal system of education but it reverberates on individuals allowing them to change beliefs, values and present judgements, transferring them to „other people”. Opening communication to personal adaptations, access to various sources and the presentation of different points of view, correctness and precision of information are essential in the education of promoting cultural diversity. Without being exclusivist, cultures stress difference, because, as M. Malita asserted „there is no culture with a capital letter, but only diverse, various, always in the plural cultures” (Malița, 2001, p. 14).

The integration of an individual into another culture implies an analysis of the self identity, a reevaluation that is related to the values of the new social group. In fact, the path is not easy; it assumes a construction that is based on the cognitive aspects as well as on the affective ones, with reference to the behavioural division. On this „track” of cultural experience, the individual may choose among several alternatives: denial, defence, minimization, acceptance, adaptation, integration.

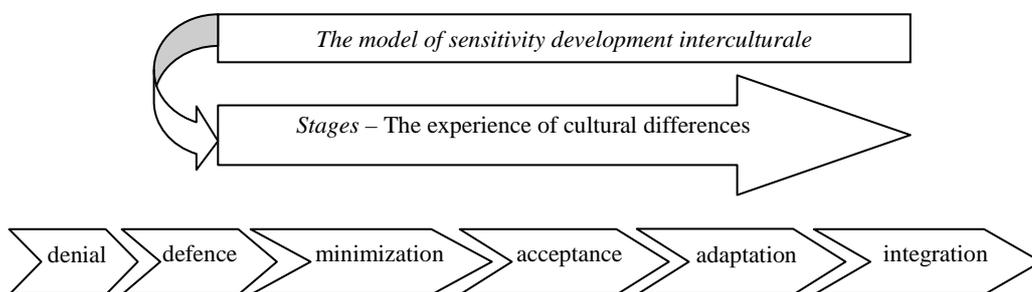


Fig. 3. *The stages of cultural experience* (adapted from Milton J. Bennett, pp. 21-72)

Cultural integration is closely connected to cultural identity, they both assuming a situational and interactionist approach. P. Tap asserts that cultural identity is „a dynamic system of axiological feelings and displays through which the social actor, individual or collective, orientates his behaviour, builds his history, tries to solve his contradictions by relating himself to other social actors, without which he cannot be correctly defined and perceived” (apud Cucoş, 2000, p. 145).

Cultural integration is important because it maintains a unity and a certain balance in society. From a functionalist perspective, if people are culturally integrated and share the same beliefs and values, then the sum of deviance must be small in comparison with a society that is not integrated. We should keep in mind that the notion of cultural integration assumes a temporal dimension as integration is, in its essence, a process. From this angle, cultural barriers are not traced, static and unbreakable but, they are rather seen as penetrable and fluid.

### 3. The results of an experimental research

In 2010 I made a constatative research on a *sample* of 78 students in year II – 30 students from the Faculty of Informatics and 48 students from the Faculty of Economic Sciences (University of Craiova). The *goal* of the investigation was to familiarize students with problems that are specific to cultural integration, as an aspect of social integration. Among the specific *objectives*, I aimed at: the delimitation of the key-concepts and the accomplishment of connections with problems that were tangent with the theme;

1. The identification of the theme preoccupations and the outlining of a minimal biography;
2. The testing of the students’ expectations and the inventory of their knowledge needs;
3. The accomplishment of a *Programme for the valorization of workshops on cultural integration*;
4. The achieving of workshops on the means of cultural integration;
5. The inventory of students’ answers to questions that regard the aspect of socio-cultural integration and the evaluation of the submitted *Programme*’s efficiency.

*This kind of ameliorative research* allows the teacher’s intervention by manipulating the experimental situation. The independent variable is represented by *The programme for the valorization of workshops on cultural integration*, and the dependent variable allows the students’ attitude that is favourable to cultural integration. I have started from the hypothesis according to which the organization of some workshops, that can give the occasion to identify modalities of cultural integration, is able to form specific competences.

Testing the students’ level of expectations and summarizing the needs of knowledge about the regarded subject highlighted their interest. Most of the students considered that it is important for the teachers to give more learning possibilities starting from the particularities of integration. The research aimed to gathering data about the essential aspects of the process of cultural integration, but it was also based

on testing a hypothesis by using a specific methodology of processing and interpreting data.

The workshops organized were meant to identify possibilities of cultural integration for children and young people in various learning contexts. It is known that during the process of socialization, man makes certain representations or images about cultures and peoples. I stressed stereotypes and prejudices that block cultural integration and I analysed a few situation in which some students have experienced „the cultural shock”. The analysis of this phenomenon called „cultural shock” led us to the identification of its effects. Among these effects, disorientation and anxiety registered higher scores, the students arguing that they diminish the capacity of integration and lead to inadequacy.

For the modalities of cultural integration, I planned a set of tasks I brought to attention during the workshops. I will show some of them below, mentioning that the experiment included several stages and events:

Time	Stages, steps and used contents	Didactic strategy	Interpretation (observations, assessment)
30 min	The following motto is displayed: „We can define the quality of being a European by sharing a set of values. In other words, being a European means sharing European values”. Students are asked to put it down and talk about it/ interpret it. At a future moment those who wish may read what they have written.	- overhead projector - independent-individual and frontal work - individual work, collective talking	The subject aroused the students interest who enlisted the values considered to be important for them from different types of integration points of view.
60 min	The students are given an opportunity of reflecting on the subject: „Communicate, choose the type, express yourself and take a stand!” They are asked to talk in groups about the advantages and disadvantages of learning in multicultural societies. Students must write down: strengths, weaknesses, opportunities and threats.	- magnetic board - group work - thought, collective talk, SWOT analysis.	Students give several types of answers, identifying several advantages in relation to the disadvantages of learning in multicultural societies.
60 min	Following a minispeech on „Young people’s integration”, students are asked to write, each of them, an essay in which to express their thoughts and feelings about the way they consider themselves part of a group, a community or society.	- flip-chart - independent, individual, frontal work - discourse, essay, heuristic conversation	The essays distinguished through the originality of ideas and the clear way of expressing points of view.
120 min	Students are shown informational materials and are asked to read several texts on „National identity”. There are written down the selection criteria	- reading cards, magnetic board, - individual, group work	Students were very interested in traditions, customs and culture of other

	(significance of symbols, perception of space and time, history elements, customs, traditions) and students are asked to identify the elements of the European identity construction.	- reading written text, explanation reading, role play.	people. By using role play the experimental group became more active and the particular situations were fully valorized.
30 min	Students are shown a poster on stereotypes and prejudices and a brainstorming on the question „How much do stereotypes and prejudices influence the cultural shock?” is suggested. The stages of using this method develop along several meetings with the students.	- poster, working cards - frontal work - storm ideas, conversation, problematization, shaping.	Starting from the presented poster, students were encouraged to elaborate more pictures. On these pictures students discussed in a constructive manner about the ideas they brought sending to actual experiences, too.
60 min	Students are told to trace the cognitive map of the collocation: „cultural integration”, and then structured actions are referred to: - approach organization – group making, each student is given a 3 min. time credit card for talking inside the group, the group manager is chosen, tasks are given: - arranging actions - choosing the moment of using the time credit card, selecting the items to answer to; - developing talking – evoking important information and main aspects.	- synthesis cards, overhead projector, computer, bonus cards - individual, group, frontal work - conversation, problematization, explanation, cognitive map.	The elaborated cognitive maps are a very good material produced by students. They thoroughly prepared their actions and initiated pertinent discussions, stressing different modalities of socio-cultural integration.

Table 1. *The programme for the valorization of workshops on cultural integration*

We keep in mind some of the students' answers for the question: „*What exactly do you think should be stressed if your objective was cultural integration?*”.

1. If I had to live in another country I should learn at least *the basic vocabulary* of the language of that particular foreign country, so that to obtain a job and communicate with the others in certain given situations;

2. I think that it would be important to learn something about the *local customs and traditions*, in order not to offend someone by mistake;

3. If I was a businessman I would like to find out more about *the local culture*, considering that it (among others) will help me achieve professional success more easily;

4. I consider it useful to know more about *the particular ways of spending free time*, because they facilitate cultural integration and, implicitly, social integration;

5. I think that knowing *the significance of objects and the symbolism of colours* is essential (eg. For Europeans, red symbolizes love, while in other cultures, danger or death);

6. From my point of view, *proxemic conventions* are the most important, and their knowing would protect me from embarrassing situations and misunderstandings (there should be observed what nonverbal behaviour of people from different cultures, the way they arrange their offices or their own homes communicate);

7. I am almost sure that the way people of different cultures think is the one that makes the difference, so that, if my goal was cultural integration, I would stress the change of seeing things, mentality, adapting to a certain style of life that is characteristic for that society and community I want to become part of.

Along the development of *The Programme* we suggested, there were stressed the analysis, interrelation and reflection. The correct interpretation of the meanings, the translation and explanation of the characteristic symbols but also the embodiment through role-play, are actions and methodological approaches that contributed to acquiring open attitudes, favourable to the cultural integration of the young people I have worked with. At the end of *The Programme* the students managed to present, with the help of sources (documents, cognitive maps, scientific studies and research reports), the characteristics of the process of social and cultural integration. Assessment highlighted the fact that they can prove, by actual examples, the role of integration at group level, experimental class, in different given situations, that they can suggest (minispeeches, short discourses) products that contribute and facilitate the process of integration, that they can promote a real or virtual action of young people's integration inside the community they are part of.

## Conclusions

The world seems to evolve in an interrelational manner, celebrating mutual cultural events. This fact makes people feel closer and facilitates the harmonization of different systems of culture that give a long-term perspective to the phenomenon itself.

The process implies the knowledge and respect for cultures and the consciousness of the global interdependence phenomenon, based on the elements and specific traits of cultural pluralities.

We anticipate that, in the near future, educational programmes will be infused with authentic values which can be found in all cultures of the world. As cultural interactions will increase, students as well as teachers will find it easier to initiate programmes of development based on the diversity of cultures. The growth of globalization on an economical scale brings changes in all human spheres: personal, social, cultural. Individual responsibilities seem to grow and disappear at the same time. Traditional appurtenance patterns fall apart and unify to make new expressions of culture. Cultural integration eliminates conflicts that are generated by the cultural

differences by organizing and merging values, psychological aspects and ways of behaviour in different communities.

Modernity assumes an unprecedented development in a number of fields of the community life. The role of the community tends to asserts more and more in a world of educational pluralism that leads us to accepting cultural differences. Every individual's access to culture, the making and developing of programmes for cultural integration, (of different age, social categories, etc.) represent pertinent measures, characteristic to democratic societies, inside which, during the socialization process, everyone learns from everyone.

#### REFERENCES

1. Antonesei, I.I., 1996. *PAIDEIA. Cultural Foundations of Education*, Iasi: Polirom Publishing House.
2. Bennett, M.J., 1993. Towards Ethnorelativism: A Developmental Model of Intercultural Sensitivity. In *Education for the Intercultural Experience* (Ed. R.M. Paige), Yarmouth ME: Intercultural Press.
3. Boudon, R., Besnard, Ph., Cherkaoui, M., Lécuyer, B.-P., 1996. *Dictionary of sociology*, Bucharest: Univers Pedagogic Publishing House.
4. Butnaru, S., 2008. Education for cultural diversity in *Pedagogy for definitivat and didactic degrees exams*, 2<sup>nd</sup> Edition, Iasi: Polirom Publishing House.
5. Cross, T., Model of cultural competence in *Curriculum Development* from <http://www.preventiontraining.samhsa.gov/LESSONSL/currdev.htm>.
6. Cucuș, C., 2000. *Education. Cultural and intercultural dimensions*, Iasi: Polirom Publishing House.
7. Eșanu, R., Goraș-Postică V., Scifos, L., Solovei, R., 2009. *European integration for you. Methodological guide for teachers*, 2<sup>nd</sup> Edition, Chișinău: PRO DIDACTICA Educational Centre.
8. Henson, K.T., 2004, *Constructivist Teaching Strategies FOR DIVERSE MIDDLE-LEVEL CLASSROOMS*, Boston: Pearson Education.
9. Ionescu, I.I., 1997. *School Sociology*, Iasi: Polirom Publishing House.
10. Jinga, I., Popescu, A., 2000. *European integration. Dictionary of communitary terms*, Bucharest: Lumina Lex Publishing House.
11. Malița, M., 2001. *Ten thousand cultures, one single civilization. Toward the geomodernity of the XXI century.*, Bucharest: Nemira Publishing House.
12. Marino, A., 2005. *For Europe. The integration of Romania. Ideological and cultural aspects*, 2<sup>nd</sup> Edition, Polirom Publishing House: Iasi.
13. Marlow, B.A., Page L., 2005. *Creating and Sustaining the Constructivist Classrooms*, Thousand Oaks California: Corwin Press 4, SAGE Publications Company.
14. Stănciulescu, E., 1996. *Sociological theories of education*, Iasi: Polirom Publishing House.  
Ulrike L., 1995. *Interkulturelle Kommunikation aus fremdsprachendidaktischer Perspektive*, Narr Verlag: Tübingen.

## EDUCATIONAL PRACTICE – PERSPECTIVES

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### EVALUATION OF THE TECHNOLOGICAL INTERNSHIP'S EFFICIENCY

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***Abstract:** Formative evaluation by portfolio methods, practical activities, projects and investigations, it offers a range of data referring to the measure in which the student / the master is able to perform various operations, to check the machine and materials, to take security measures, to execute preparatory work, to perform operations required during and after the observations, to make qualitative and quantitative observations, to record observations, to interpret the results, to accept or reject hypotheses, to draw other conclusions, to explain the observations made, to compare the results with data obtained or with data from and literature of specialty, to indicate possible further experience, to provide a range of creative solutions.*

***Key concepts:** criterial evaluation of the technological practice, awareness of the role and contribution of his work, technological internship's efficiency, linguistic competences, intercultural competences, efficiency of value and level of performances / skills, the technological practice training portfolio.*

#### **1. Semantic clarifications: verification, measuring, assesment of quantity and quality of knowledge, efficiency of value and level of performances / skills, at individual and organizational level.**

In human activity the evaluation is "all the concerns and approaches for identifying, estimating, and if possible, quantifying the underlying values produced in nature and society" (D. Ungureanu, I. Clipici, 2005, p.281). Evaluation is a complex activity of the educational process because it manages information about its quality and efficiency as a whole, as well as functional component of this process (forms of

organization, contents, strategies, methods, features of style, performance achieved, etc). The structural and functional component of the educational process is realized in the form of self-evaluation, an appreciative approach made by the education on its own performance.

The analysis of components and mechanisms of evaluative approach in the context of school issues leads to the idea that their good functionality generates the quality of the effects of educational actions. "The education quality means ensuring for every teachable conditions be the best, complete and useful development" (S. Iosifescu, 2001, p. 49). Viewed from this perspective, the complexity of the evaluation process is in direct correlation with the possibility of accurately determining / measuring the quality of education.

Providing reverse connection between the receiver and the transmitter of the teaching message, the evaluation gives to the teacher the knowledge of the results of school activity for its further improvement.

In theory and practice of education, the evaluation is addressed nuanced:

- as a way of adjusting the teaching-learning processes, to improve the way to achieve its quality;
- as value judgment referring to results achieved synchronically and diachronically in the educational act;
- as process of providing useful information that allows making regulatory decisions improvements;
- as means of communicating the performances obtained by the subjects of the educational act.

Educational theorists and practitioners agree that the evaluation is a pedagogical activity of testing, measuring and appreciation of the results achieved by the subjects integrated in an educational approach, conducted over a certain period of time. Evaluation and examination guide (2001, p.8) defines the concept of evaluation as "all the activities through which one makes the collection, organization and interpretation of data obtained through the application of some measurement instruments, with the purpose of issuing the evaluation trial on which is based a certain educational decision".

Evaluation is the subject of dokimologic science (gr. dokime: evidence, gr. logos: science).

Analyzing the evaluative approach, Cucuș C. "discerns three functions of assessment: identifying or verifying school purchases; improving and regulating the ways of training of individuals, identifying the most easy and relevant ways of training and educating; sanctions or social recognition of the changes made on individuals who are in training." (Cucuș C., 2008, p. 395).

Time structuring of the evaluative process in education reveals the differentiation of the following fundamental operations:

- checking the level of the school performances;

- measuring the results by reference to specific performance indicators;
- evaluating the quality, efficiency and effectiveness of education;
- formulating a decision of settlement, improvement, development of the education evaluated system / subsystem.

The teacher will take into account various facets of the educational results of learners:

- student's performance, which shows different momentary shades of behavior identified in operational objectives;
- student's performance, correlated with the level of achievement or accomplishment of learning tasks' application;
- learner's competence, which reflects a complex mental structure of knowledge, skills and abilities, providing conditions for efficient handling of a class set of problems or situations;
- conduct of learners, which is a whole of reactions, their attitudes and relationships with colleagues, in the context of learning situations, to achieve practical actions or to solve problems.

Verification, as a first operation of the evaluative process leads to the knowledge of different aspects of school performance (quantity and quality of knowledge, skills and abilities acquired by the student) as well as the psychological conditions of learning, it had determined:

- the functioning level of the cognitive processes;
- the spirit of observation;
- semantic information processing capacity;
- the attitude and interest in deepening into theoretical or practical knowledge.

Also, during the evaluative verification stage, the teacher is able to find efficacy of used methods and procedures, and the difficulties encountered by students in learning activities and creative solving of technical problems.

Information resulting from the verification can lead the teacher to improve its work and teaching style on the one hand, and to yield the learners to a systematic activity / review of the covered topics, on the other hand. Providing reporting of the obtained results of the students verification helps to improve their ability to self-evaluate.

In a second stage of the evaluative work, the activity focuses on the operations of measurement, quantifying the verified results and determining their size, by assigning grades or scores. Evaluation is made through measurement, reporting assigned points to a standard or specific performance indicators which allow a ranking value of the subjects examined. The main way of expressing quantitative results and their validation is numerical notation, this operation is in quantitative terms, conventional, called grades. The grade given by the examiner represents the digital, the conventional expression through which students are valued differently, procurement and review of the skills acquired through learning.

Measurement aims to achieve objectivity in evaluation, but the measurement accuracy depends on many factors, such as:

- the quality of used techniques (samples, tests, correlation indices);
- their adequacy in relation to specific measured phenomena;
- the ability of the self-evaluator to record and play with numbers, qualitative characteristics of the studied entities.

Appreciation, as a recovery phase of the gathered information, is the formulation of value judgments and matters, relating to the measured results. Pedagogical objectives function as a benchmark in making such value judgments. Assessing educational outcomes based on some criteria, of a scale of values or "sets of descriptive statements", lead to determining the following goals:

- quality of services / educational offer, as fundamental purpose of evaluation;
- efficiency (the ratio between results obtained and resources used);
- efficacy (the ratio between results obtained and expected results);
- progress (the ratio between results and previous results);
- performance (minimum, medium or maximum success level);
- success (accomplishment of given tasks as frequency, volume, etc).

The quality of appreciation is based on dokimologic readiness of the evaluator teacher, his experience and his personality traits.

Evaluative assessment phase is completed by the decision-making operation and provided for correctiveness and improvement of the educational act. For the correct application of these, the teacher must meet the following teaching criteria:

- full exploitation of the specific characteristics of the evaluated object;
- improving the quality of teaching;
- realization of educational communication of the decision in terms of managerial methodological guidance of the evaluated subject.

In conclusion, the evaluation is a complex activity including verification measures, measurement, assessment and decision. In addition to structural complexity, the evaluative process is based on certain rules of verification, scoring and evaluation, called dokimologic, whose observance ensures its objectivity and rigor.

Based on the integration of the evaluative act in the process of education and the level at which it is made, we distinguish several forms or types of evaluation.

Initial evaluation, which is done at the beginning of a period of training - semester, school year, teaching cycles - or a chapter, performing a predominant diagnostic function. Based on it, we determine: the training level of students, expressed in the volume and quality of knowledge acquired, skills, abilities and their intellectual skills, including the school; the development level of intellectual processes, gaps in their preparation, learning style, etc.

Knowledge of these acquisitions by the educator is necessary for the design and learning of the content of training in the next stage, as well as to determine the directions and appropriate corrective and improvement action.

Summative evaluation or "certificate" aimed at verifying and assessing learning outcomes regularly. It is performed at the end of long training periods

(semester, academic year, and learning cycle) and focuses on preparing the overall performance of the students and the results obtained at different disciplines. Grades and school degrees obtained by the students / masters at the end of a year or cycle of education are unique benchmarks, so is their classification and promotion criteria.

Formative evaluation is a frequent verification and assessment, systematic, at small intervals of time, of the school results for a training period (semester, academic year). Compared with the summative, formative evaluation is characterized by a sustained rhythm, by a higher frequency of inspections and evaluations and assessments and, by shortening the interval between evaluation and the implementation of measures to improve the educational process. This type of evaluation is integrated organically into the process of education, offering to the teacher the possibility to know the actual training and intellectual development of students, at a certain time, and the direction in which they will evolve in the future.

The main advantages of formative evaluation, mentioned in the literature are:

- a. it checks systematically, on small sequences, all students, in all matter;
- b. it provides guidance of the student through learning, appropriate correction of mistakes, remediation or deepen their knowledge enrichment programs;
- c. it evaluates not only the result of learning, but also the process by which a particular result was reached, allowing its improvement in the future;
- d. it fosters cooperation between teacher - student / graduate student and self-education ability, based on the knowledge of evaluation criteria;
- e. it consumes less time than summative evaluation.

As it relates to operational objectives, highly specified, formative evaluation ensures grading appreciation objectivity, thereby developing learning motivation.

Formative evaluation is the perfect form of formative assessment. Its function is to raise awareness of what students should learn and achieve during the placement of practice, taking over the criteria for evaluation of their own products / creations. Psycho-pedagogical studies show that formative evaluation focuses on observable behaviors, while formative assessment reflects on the ability of the student / master student to critically assume its own educational progress achieved through learning.

Taking as criteria the manner and level of achievement, and psycho-pedagogical objectives referred to in literature, it is made the distinction between pedagogic evaluation and economic evaluation.

Economic evaluation aims to determine the effectiveness of the education system by reporting the results of education, as a whole, to material resources, financial and human resources (material resources, money, staff, technical and research personnel) invested by the society. Education's results (system and process developed in its framework) are materialized objectified as preparing graduates to skilled labor and effective contribution to increasing productivity and achieve social progress. Knowledge of these aspects, means of economic value, is the basis of objective assessments of external functionality of education in its relations with social macro system - the society - in which it is integrated.

## **2. The analysis of formative valences of assessment functions for the preparation of students during technological practice training**

Referring to the evaluation functions, I. Maciuc differentiates them under the aspect of importance revealing "three main functions of the evaluation:

- a. ascertaining function, exerted on the assembly and storage of interpretation data;
- b. diagnostic function of the activity, aimed at analysis of collected data;
- c. predictive function, exercised on the basis of the interpretation of accumulated data". (Maciuc I., 2007, "Classic and modern in current pedagogy", Craiova: Editura Sitech).

Below we briefly present the relevant aspects of the strengths of the formative functions of the evaluation when preparing students, during technological practice training.

Diagnostic function determines the level of training and intellectual development of students, their skills, the attitude and their interest on practiced activity. Based on information obtained through used verification methods are revealed difficulties encountered by some students in their work, the theory that requires further explanation, clarification and systematization.

If student's performance on the stage of technological training is unsatisfactory, the teacher analyzes the causes and determines appropriate means and measures: he corrects, amends or abandons ineffective strategies, he changes his teaching style, thus creating another evaluation function - the corrective function, of adjustment and improvement of the educational process. It requires individualization of practical training in accordance with various aspects of personality of the diagnosed students during the evaluative act.

The function of finding the results of technological training is to inventory the acquisitions of the student during the practical training, the progress or regress registered from one stage to another, and in specifying the place in the team to which he belongs, based on the obtained results. Evaluation judgments involved in evaluating the student work expresses the appreciation of the evaluator on the abilities of the student, in terms of its ability to progress in training his technical and applied capabilities and skills. Integrating harmoniously into the context of a professional activity, the student can objectively appreciate, through received grades, the results of his progress, realizing the criteria for assessment, training requirements and their legitimacy. In this way, the control is performed by the teacher, it becomes a selfcontrol for the student, and concrete ways are appreciated - a strong motivational factor that regulates his conduct from inside.

Function of knowledge of factors and situations that have contributed in finding constant results. Through their knowledge, the student understands the causes of progress and setbacks recorded in future training activitie.

Accounting and control function of the results obtained by the students in techno-productive training activity: control achieved through practical methods of evaluating the evidence guide provides both to the technological practice teacher and the student, information about the rhythm of training, effectiveness or ineffectiveness of the used means and methods of education, about the progress and / or setbacks registered by the students, systematic or sporadic nature of their training. Depending on the effects produced, we can determine the quality of practical training, the actual learning of technical- productive skills.

Predictive or prognostic function through which, based on information and data provided by the evaluative act, one can predict the output and the rhythm of practical training development in the next steps and - by default – the possible results and performance of the student. However, we anticipate future possibilities and directions of their evolution in terms of the technical – scientific creativity. This feature also indicates the extent in which students will be able to exercise the powers and role in the field of professional activity in which they will be integrated.

Formative function. Through its specific actions of measurement and appreciation and through constant effects, the evaluation helps the student to realize the progress / setbacks and gaps encountered in work of practice, the effectiveness or ineffectiveness of the used methods, the direction and modalities of action for his professional development. Also it develops the capacity and habit of self-evaluation by comparing the obtained results to those expected by the teachers and economic agents.

Another aspect through which is expressed this function, is the contribution of the evaluation to build a career motivation. The grading operation and through favorable or unfavorable appreciations that implies, it stimulates students to be involved in practical activity, it cultivates their interest and desire to develop technical creativity, it determines a positive and responsible attitude with respect to this task.

Classification and selection function that allows students to be hierarchically in the group they belong.

The function of stimulating the development of the self-evaluation capacity of the agents in the education process is important for determining the educational process as objective as possible, the relevance, effectiveness, coherence and efficiency of technological readiness internship.

Social function is the function through which policymakers and society, in general, are informed about the practical training process efficiency. Based on them, one can pronounce over the effectiveness of education as a subsystem of the society, one can confirm or refute the accumulation of knowledge and skills necessary for socially useful activities.

### **3. Criterial evaluation of the technological practice: common frame of reference - standards / descriptors / principles re-contextualization**

When it comes to training future professionals, the practice is an essential component.

The ones who are organizing practical training should consider a range of skills they want to form during the practical work:

**A. General skills developed during the internship program**, (cf. [http://www.ier.ro/index.php/site/page/competente\\_stagii\\_dct](http://www.ier.ro/index.php/site/page/competente_stagii_dct)):

- acquire knowledge and skills to trainees in specific activities including service operating stage by placing them in real work situations;
- motivating the chosen profession, through a better understanding of its real work context;
- preparing trainees for the labor market by acquiring practical experience in relevant field;
- skills training on working relationships (team spirit, communication and networking skills, awareness of quality of work).

## **B. Skills acquired in practical training:**

### **1. Competences for providing various activities**

- awareness of the role and contribution of his work;
- knowledge of applicable standards activity and ways of establishing and monitoring their;
- know how to clarify the requirements and objectives of the beneficiaries and other stakeholders;
- detailed knowledge of planning, time management, work, stress at work;
- knowing how to operate, taking into account the requirement, objectives, work instructions, deadlines, interpersonal skills, team organization;
- knowing how to operate in compliance with professional ethics;
- knowledge of how to work with other team members, team work (including at a virtual team), a project coordinator with a superior;
- ways of self-knowledge in terms of quality concerns, adapting to new situations / conditions, openness to innovation and accountability;
- knowing ways of defining and assessing problems and finding appropriate solutions;
- knowledge of methods of reasoning and decisions and choices made;

### **2. Linguistic competences**

- knowing how to understand the grammatical structures, lexical and idiomatic as well as graphics and typographical conventions of the language (Romanian) and other working languages (B, C);

- knowing how to use the same structures and conventions in languages A and B;

- know how to extract and summarize the essential information from a document (the ability to summarize);

### **3. Intercultural competences**

- knowing how to use a register suitable for a given situation in a particular document or situation;

- knowing how to recognize and identify elements, reference values and their cultures;

### **4. Competencies regarding national research and terminology**

- knowing how to identify needs for information and documentation;

- developing research strategies and research documentation terminology (including addressing experts in various fields);

- develop evaluation criteria document available on the Internet or other medium, knowing how to evaluate the authority of documentary sources (critical);

- knowing how to effectively use tools and search engines (eg. Terminology software, electronic corpora, dictionaries in print or electronic), which are necessary to clarify concepts.

### **5. Thematic competences**

- knowing how to search for appropriate information to gain a better understanding of the thematic;

- knowing how to develop knowledge in specialized areas (rule systems concepts, methods of reasoning, presentation, terminology, etc.).

### **6. Informatic competences**

- knowing how to use efficient and fast integration of a range of software applications to assist the activity;

- knowing how to create and manage a database and files;

- knowing how to adapt and to become acquainted with new tools;

## **C. Activities conducted during the internship:**

### **1. General aspects**

- activity in a collective awareness of the importance of each activity within this group and in light of the objectives to be met;

- familiarity with the requirements to be met by the work they perform;

- explanations offered by practice responsible;

- discussions on the subject with the coordinator of practice;
- carrying out work in accordance with the requirements of the Guidelines of practice, guidelines and requirements expressed by the coordinator of practice;
- work tasks according to time and quality requirements specified by the coordinator of practice;
- working with the coordinator of practice and other team members, both face to face and via email, to fulfill duties as required;
- activity in an organizational framework in compliance with regulations and working procedures;
- awareness of the role it plays in the position of a member of the team and team goals assuming this role;
- trainee self-activity results in relation to quality requirements in terms of ownership of the results of his work;
- preliminary discussions with the coordinator of practice to clarify the workload of the practitioner and acquire practical information required for their achievement;
- practical assistance from the coordinator during work tasks (discussion on the difficulties encountered in carrying out);
- explore the results of the activity with the trainee practice coordinator (feedback).

#### **4. Conceptual benchmarks, strategic and methodological regarding evaluative research of the technological practice efficiency**

The evaluation was defined in the previous paragraphs as an essential function of any education system or subsystem which is manifested as self-regulating mechanism that guides the action of educational agents, giving them the opportunity to streamline decision-making in educational approach. Judgement of evaluative value can be achieved in two planes:

- the plan of state assessment and operation of an educational system / subsystem and by default, in the plan of its effectiveness evaluation;
- the plan of evaluating the quality of formative processes of the educated, quality analyzed in the report of the results anticipated and achieved.

Technological practice training takes place in our system of education as such a subsystem consisting of a set of educational activities, formative effects in terms of becoming professional / vocational needs of youth. Like any educational program, technological practice internships is a provider of quality services, that must be evaluated in terms of indicators regarding:

– quality of services / educational offer, as fundamental purpose of evaluation;

- efficiency (the ratio between results obtained and resources used);
- efficacy (the ratio between results obtained and expected results);
- progress (the ratio between results and previous results);
- performance (minimum, medium or maximum success level);
- success (accomplishment of given tasks as frequency, volume, etc).

Also, the quality of technological practice placement achievement is directly related to the formation and development way of the evaluative skills of the teacher supervisor for technological practice. In fact, this last goal is a central goal of specialized Graduate Program, titled *The practice supervisor teacher*. The quality of this objective can be revealed by methodology specific to *evaluative research*.

*Evaluative research* evaluates the way in which an educational project provides quality services and it acts as a relevant, coherent, efficient and last but not least, effective process. Evaluating this type of quality of the program can be achieved by following the next steps, that are required by the evaluative research (Scriven, 1972, cited Istrate O., 2006, p. 538):

- characterization of the to be evaluated;
- clarification of the conclusions to be formulated;
- research and identification of causal relations: actions – effects;
- identification and analysis of all the consequences;
- costs evaluation;
- identification and analysis of program objectives;
- comparing the program with other competitors;
- needs analysis as a basis for assessing the importance of the program;
- formulation of overall judgments on the program.

Evaluative research of technological practice internship follows the appreciation of the measure in which have been realised the objectives of the education program, revealing the educative effects and formulating some recommendations from the point of view of vocational becoming of the student. Taking into account the action of a serie of variables which determine the quality of the student preparation, the evaluative research proposes to analyze the share of the informations / data from multiple sources:

- evaluation of data regarding education progress during the training of the student / master student, included in the technological practice internship;
- evaluation of the data regarding the formative capacity of the teacher supervisor of technological practice;
- evaluation of the formative strengths of the methodology used in the field of specialization in which the relevant practice is made;
- evaluating the benefit of the institution / company that provides conditions for conducting the technological practice training;

– psychosocial climate assessment, which will capitalize the benefits of achieving a technological internship, conducted at a high quality standard - or conversely, to an average or poor level.

Evaluation of the effectiveness of technological practice internship from the point of view of the student / master student reveals the measure in which educational objectives regarding formation of skills, abilities and professional skills proposed in the curricular topic, area or master's degree specialization were achieved. In this sense, evaluative approach will appreciate how practical work carried out by the student / master has formative value (in the didactics of specialty technology) in terms of the best quality / cost required to conduct to practical training program. It will consider whether the educational institution in collaboration with the production of the appropriate conditions are provided to facilitate the most comprehensive and useful development for each student / graduate student included in the program of practical training.

Formative efficiency of the technological practice internship is directly related to the formative capacity of the supervisor teacher. In this respect the educational value of practical training is given to the achievement of the following indicators:

- the way in which the supervisor teacher of technological practice designs and applies organizational methods of training students' practice / master, providing the shape - the normative of development of technological practice;
- how the teaching practice supervisor executes technology workshops for them;
- how the teaching technological practice supervisor advise students / master group that he is responsible for, in connection with drafting staff, processes and personal development of student portfolios;
- how the teaching practice supervisor provides principle negotiation of the institutional partnership college- organization, practice partner;
- how the technological practice teacher supervisor monitors the students' activity, assisting them and giving them support to prepare for specialty in technological practice locations;
- how the teaching technological practice supervisor monitors organisation and development of participatory self-evaluation workshops of technical creative activities of the students;
- how the practice teacher supervisor identifies and prepares a tutor for practice;
- how, with practice tutor he evaluates products - portfolios of technological practice of the students;
- how the teaching technological practice supervisor monitors the participatory colloquium of final evaluation of the technological practice, in partnership with the tutor of practice, ensuring objectivity in awarding final grades;
- how the teaching technological practice supervisor communicates effectively with the tutor of practice and with the students, to conduct to best practice of the students;

- how the teacher technological practice supervisor values the supervisory experience of the technological practice, realizing his own self-evaluation activity.

The formative impact of the strategies, methods, techniques and evaluation evidence on the educational progress made by students / participants masters to the technological practical training is also an important objective of evaluative research.

Traineeship technological efficiency can be assessed also in the extent in which the tests of practical assessment had or not a significant contribution to training and development of the following psychological resources of the students / master practitioners:

- structuring operations specific to technical thinking;
- skills transfer and technical under varying conditions;
- observing the stages of a technological process;
- ability to use various tools, to use specific equipment integrated into a technological process;
- structure of operations specific to technical skills;
- develop fluency, associative and mental fluidity;
- developing flexible thinking operations;
- ability to formulate new ideas, original ones;
- ability to solve technical problems ingeniously;
- ability to complete in terms of quality a technical product;
- ability to record and present obtained data and results.

The efficiency of technological practice training is given also by the evaluator teachers' ability to provide students / master an appropriate methodology for assessing the appropriate behavior of educational goals designed to the development and to end the qualifying period.

Evaluative methodology used in assessing of the internship is complex, including qualitative and quantitative methods, techniques and tools established in a methodological portfolio:

- evaluation interviews, focus groups with target group and project team members;
- self-procedural models, peer, statements of intent;
- questionnaires, observation scale models;
- monitoring forms of interaction and communication;
- analysis of project teams work products;
- analysis of target group members work products;
- standardized tests (sociometric, personality, docimologic, yield);
- records of assessment models (such as using "behavioral anchors");
- experiments, numerical calculation;
- scale of the level of integration of personality; scale levels to meet the needs of target groups;
- written reports;
- "artifacts" - concrete results of education program materials.

## **5. Formative evaluation conducted during the technological practice internship. Applications**

### **a. The structure of the technological practice training portfolio**

Evaluation is a process that must take place continuously, being continuously and organically integrated in the process of education. It is done during the teaching and educational activities, at different moments of time and at different intervals of it; during the current, periodic verification at examinations and competitions. As a process, evaluation passes through several *stages*:

- definition and objectives prior knowledge of the educational process;
- creating learning situations to enable students to advance the objectives set out behavior;
- choice of methods of verification, recording and measurement;
- evaluation and analyse of collected data;
- diagnostic conclusions and assessments based on obtained data.

The author of these steps (R.W.Tyler), quoted by I. Nicola (Nicola I. - "Pedagogie", 1994, Bucharest, Didactic and Pedagogic, p.332) believes that their completion is mandatory, regardless of the evaluation form.

The assessment during technological practical training focuses all the changes and acquisitions in the field of bio-psycho-socio-cultural personality of the student / student's, such as:

- their knowledge of educators, which are defined by two parameters: volume (quantity) relative to curriculum and quality provisions. In turn, the quality is defined by understanding, the ability to express them intelligible (makes sense) and fair in terms of the essence, systematization and precision;
- intellectual capacities, focusing on their development level, probably the complexity of the tasks solved by students and solving personal manner. In this category are included:
  - the ability to see, to save and faithfully reproduce knowledge, to solve problems and problematic situations;
  - an ability to perform logical operations on assimilate informational content: analysis, synthesis, comparison, abstraction, generalization, concretization;
  - to explain and demonstrate with scientific, logical, factual arguments;
  - the ability to develop inductive reasoning, deductive, by analogy with similar information content as a support for students;
  - the ability to transfer (horizontal, vertical) and extrapolation.
  - cognitive style, designating a certain way of thinking, the use of certain data processing rules, certain ways and strategies set of processing and systematization of information received, of approach and solve problems;
  - ability to apply the learned knowledge, to use them to understand and assimilate new knowledge, solving problems in theoretical or practical implementation;

– personality traits: attitudes of character, skills, interests, spiritual needs. Except skills, other features can not be measured but they can be assessed differently, their determination, as well as other acquisitions, with a coefficient of relativity.

In addition to these physical resources (cognitive structures, skills, abilities, job skills, affective-motivational components and socio-moral), evaluation focuses on the quality of teaching and learning processes they have generated, specific educational and psychosocial conditions where they were developed.

From the complementary methods of evaluating the student / graduates after the technological practice internship, psycho-pedagogical literature recommends to the practice teacher supervisor to use the *portfolio method*.

*The portfolio* consists of compulsory and optional materials, selected by the student and / or teacher and which refer to different cognitive goals and strategies. The portfolio contains a selection of the best work or personal achievements of the student / master student, that represent him and which permit assessment of skills, competencies, highlighting its progress / personal contributions. Portfolio composition is an opportunity for the student / graduate student to self-evaluate, and to discover the value of his skills and mistakes.

Portfolio, by its complexity, provides a clear picture of the progress in time of the student / master, reflecting the motivation for learning and being an effective way of communicating the results. It includes relevant results obtained by other methods and techniques of evaluation (practical examinations, self-evaluation, project, systematic observation of behavior, etc.).

*Content of the portfolio* consists of the following *parts*:

- works made by the student / master's individually or in groups;
- individual study sheets;
- projects and experiments;
- solved problem;
- written reports – of project development;
- tests and semester papers;
- surveys of attitudes;
- records, photographs reflecting the work of the student / master individually or together with his colleagues;
- observations based on observations guides;
- student's own reflections / student's about what he works at;
- self-evaluations written by the student / graduate student or group members;
- assessment interviews;
- cognitive maps;
- contributions to the activity that reflects student's participation / master's / group's progress and address data base;

Portfolio evaluation is usually made by the teacher by explaining, at the beginning of technological practice, the learning objectives for the period when they will receive the score / rating. Teacher and students agree on the tracks and portfolio

should contain to evidence the learning objectives. Each item included in the portfolio can be evaluated quantitatively and qualitatively, in terms of originality and its functional value. Portfolio evaluation should be made in terms of the effects that such an evaluation had on personality development, self-evaluation capacity and skills of intercommunication. Self-evaluation is a learning process, students taking responsibility on their activities, re-thinking their own learning and thinking process.

Portfolio evaluation is released mainly by stress and negative emotional tone accompanying the traditional forms of evaluation; evaluation becomes motivating for the student and not stressful; it develops student's capability of self-assessment, making him self-reflexive about his own work and on his progress. Technological practice placement portfolio content will take a practical overview of the main activities carried out by the student / graduate student during the placement, activities which in turn present a series of formative educational facets, which are points of support in the evaluation of the student / master's by the supervisor. In this respect, technological practice teacher supervisor will assess the extent to which the student / the master is able to:

- to prepare an experiment / experience;
- to formulate a hypothesis;
- to define the objectives of an experience;
- to indicate the operation of experience (to sketch an outline of work);
- to appoint sizes to be measured;
- to gather information and use the data provided or collected;
- to use tables;
- to consult other sources;
- to indicate the degree of accuracy;
- to indicate device and materials;
- to indicate the observations that must be made;
- to determine the limiting conditions;
- to indicate the limitations / constraints;
- to indicate the possible risks.

Portfolio can be considered both a complementary tool used by the teacher supervising the practical technology training in applying educational strategies focused on teamwork, on the development of extensive research and learning projects.

Through the materials contained in the portfolio, it is not only an alternative method of student evaluation. Portfolio may be illustrative to create image of the institution which had guided its realization, being used as a way to represent a group or an institution.

*Among the strengths of the portfolio*, with increased formative value, we mention:

- portfolio shows a variety of skills of the student / master's;
- it provides various information on which teachers can start a full trial on the performance of the student / master's;
- it provides a clear picture of the progress in time of the student / master's;

- it increases motivation to learn;
- it provides student / master's ability to work in his own rhythm;
- it permits assessment and inclusion in the evaluation act of student's work products / master's who, normally, are not considered; this fact encourages the diversification of knowledge, skills and abilities exercised;

- it fosters student responsibility / master's.

*Weaknesses of the portfolio*, as evaluative method are:

- it is time consuming;
- it does not allow ranking of products;
- it can not be evaluated quickly and easily;
- it is difficult to appreciate it as a strict scale, because it reflects the creativity and originality of the student / master's.

In conclusion, formative evaluation by portfolio methods, practical activities, projects and investigations, it offers a range of data referring to the measure in which the student / the master is able to perform various operations, to check the machine and materials, to take security measures, to execute preparatory work, to perform operations required during and after the observations, to make qualitative and quantitative observations, to record observations, to interpret the results, to accept or reject hypotheses, to draw other conclusions, to explain the observations made, to compare the results with data obtained or with data from and literature of specialty, to indicate possible further experience, to provide a range of creative solutions.

#### REFERENCES

1. Abrecht, R. (1991), *L'évaluation formative: une analyse critique*. Bruxelles: De Boeck – Wesmael.
2. Bunăiașu C.M. (2009), *Managementul programului educațional*, în I. Maciuc, Proiecte și programe educaționale pentru adolescenți, tineri și adulți. Craiova: Ed. Universitaria 2009, pp. 59-70.
3. Cucuș, Constantin, (2006), *Pedagogie*. Iași: Ed. Polirom.
4. Dafinoiu I., (1997), *Competența : evaluare și promovare în câmpul universitar*, în A. Neculau (coord.), *Câmpul universitar și actorii săi*. Iași: Ed. Polirom, pp. 203-212.
5. Iosifescu, S., (2001), *Management educațional. Ghid metodologic pentru formarea formatorilor*. București : Ed. ProGnosis.
6. Istrate, O., (2006), *Cercetarea evaluativă în educație*, în S.Cristea (coord.), *Curriculum pedagogic*. București : E.D.P., 2006, pp. 534-541.
7. [Jinga, Ioan, Istrate, Elena. \(2006\), \*Manual de pedagogie\*. București: Ed. All.](#)
8. Macdonald, Randal, Wisdom, James, (2002), *Academic and Educational Development. Research, Evaluation and Changing Practice in Higher Education*. London: Kogan Page.
9. Maciuc I., (2007), *Clasic și modern în pedagogia actuală*. Craiova: Editura Sitech.
10. Morgan, D. L., (1998), *Focus Group Kit*. London : Sage Publications.

11. Morris, Michael (ed), (2008). *Evaluation Ethics for Best Practice. Cases and Commentaries*. New York and London: The Guilford Press.
12. Novac C., (2010), *Valences formatives de la recherche psychopédagogique en vue d'affiner le style cognitive des étudiants – futures enseignants*, în M. Șt. Rădulescu, B. Darbord, A. Solcan (coord.), *La méthodologie de la recherche scientifique: composante essentielle de la formation universitaire*. București: Ars Docendi, 2010, pp. 305-314.
13. Potolea D., Neacșu I., Iucu. R, Pânișoară I. O., (coord.), (2008), *Pregătirea psihopedagogică*. Iași: Polirom.
14. Ungureanu D., Clipici I., (2005), *Evaluarea în procesul de învățământ și educație*, în Dumitru I. Al., Ungureanu D., (coord.), *Pedagogie și elemente de psihologia educației*. București: Editura Cartea Universitară.
15. Weiss, C. H., (1998), *Evaluation* (second edition). New Jersey: Prentice Hall
16. \*\*\* Legea Nr. 258/2007 privind Practica tehnologică.
17. \*\*\* (2001) *Managementul proiectului – ghid pentru formatori și cadre didactice*, M. Ed. C., Consiliul Național pentru pregătirea profesorilor.
18. \*\*\* Ordin 3.9555 din 9 mai 2008 privind aprobarea Cadrului general de organizare a stagiilor de practică în cadrul programelor de studii universitare de licență și de masterat și a Convenției-cadru privind efectuarea stagiului de practică în cadrul programelor de studii universitare de licență și masterat, Ministerul Educației, Cercetării și Tineretului, Monitorul Oficial nr. 440 din 12 iunie 2008, București.

## MATHEMATICAL THINKING AND EDUCATIONAL OPPORTUNITIES

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### **Abstract**

*This study is like a reminder of the importance of the relationship between stages of research objectives and mechanisms of cognitive competence in teaching mathematics, revealing aspects of semantic procesualității offers a variety of hypothetical explanatory models, derived from various perspectives psychological, ontological and methodological.*

*The essence lies in emphasizing the importance of interdisciplinarity in shaping human cognitive behavior in the field of mathematical learning.*

**Key concepts:** *cognitive mechanisms, interdisciplinary, building mathematical semantic type, code figurative, semantic verbal activity, mathematical entities, epistemology mathematics, problem solving, mentalizing.*

Since any investigative approach involves phasing research objectives, we consider that to stimulate and direct those processes which increases the power semantic cognitive mechanisms we devise lists of questions, problem-solving, analysis and evaluations, plans ideas, depending on a variety of suitable premises hypothetical stage of the development of mathematical thinking and educational opportunities as well as on the role and concept of mathematical thinking and action, not least, the educational function of the game in mathematical thinking.

The active role of human knowledge, be it mathematical type, suggests that nature can not be deciphered only starting from the original role of semantic processes because, as Jacob Bronowski revealed (1998), information mechanisms that are in neocortex semantic processor type. If the informational equivalent transducers using certain stimuli to trigger instructions - type mechanisms semantic information using signs, criteria and processing rules are signs that pressure and changes in their products and their consequences. In our case, semantic processing are not instructions, but different processes that can direct human events and semantic type objective mathematical construction.

Most researchers who have addressed this issue revealed evidence of specific semantic processes which occur especially in mathematics: *symbols, metaphors, abstractions, typing, generalizations etc.*

There are many theoretical aspects of studying semantic procesualității offering a variety of hypothetical explanatory models developed from different perspectives ontological and methodological, some highly nuanced. Reviews and new hypotheses in semantic analysis gives A. Schaff (1966) and Noel Mouloud (1996).

Jean Piaget (1973), on which one to recover, reveal that both objectified knowledge and actions as they adjusted to indicate the involvement of processes carried out by mechanisms that are not performing (like hormonal or neurovegetative) because they build itself under the influence of the state of knowledge, according to the human environment and the consequences of their actions.

Human history reminds us that man, in its evolution, has learned to count the animals, went to hunt in groups, group members shared the spoils with performing certain actions based on semantic operations supported by them. These operations are processes semantic type program with real finality. As a side effect they generate different semantic entities not corresponding to physical existence. For example, terms such as *one, two, three, subtraction, addition, division etc.*, serve as *verbal semantic tools*. Semantic verbal code generates the first tools used in the semantic pragmatic processes. The explanation is that these calculations are possible because the code word generated semantic entity formed under the influence of semantic processes such figurative numbers, geometric figures, measurement units etc.

Thorough analysis from the perspective of human cognitive behavior epistemology, even within mathematics learning, generated the conclusion that, having given names figurative awareness processes (rock, man, fire, short, easy), practical action, some sensations or state of the body, semantic actions (addition, subtraction, counting), the man is reported and drawings, as products of figurative code, or even specific physical entity to its ambience. This is true for the field of education including mathematical type. During our investigative approach we try to trace how to calculate arithmetic and geometric shape, the pragmatic option, of course, affect the educational process - in this case, the learning of mathematics, mathematics and theoretical concerns in psychological and philosophical option. All those who are concerned about the genesis and existence of the ontological status of the foundations of mathematics and even mathematics (M.Țurlea, 1998 N. Culda, 1989, Elijah Parvu, 1981; M. Flonta, 1971 etc.) endorse the idea that "reporting figurative to abiotic entities ", made possible the first arithmetic and geometric in reporting human semantic entities like numbers, geometric figures and their properties seized various empirical theories underlying the development of mathematical tools that represent semantic us, later becoming usable in mathematics.

Mathematical activity in objectiving theorems and ways of proving theorems, algebraic axiomatized constructions and ways of axiomatization etc. Thus, knowledge of mathematical type, and even learning how mathematical learning mathematics, it subsumes the general scope of knowledge, model, Learning Design, in the sense that

mathematics, mathematical knowledge type, gradually builds its objectives are then to know.

Professional field of mathematics is emerging gradually as mathematical constructions accumulate and become objects of reference for further research. Morris Kline (1980, p. 67-68) indicates that a feature of the evolution of mathematics, theoretical mathematics that research is necessarily in a context that combines theoretical and applied research without the theorist to distinguish the different nature of its activities.

In conclusion, we can say that there is a professional field of mathematics and that, as semantic verbal activity grows, develops and its pressure on the verbal code. Since man can notify that thinking can lead to erroneous conclusions (false, vague, misleading) and putting all sorts of questions about the possibility of thought, abstract mathematics, trigonometry, rules knowledge correct thinking, the very way the existence of the human psyche so. All these concerns have resulted in the establishment of several theoretical areas of study concern the various functional aspects of the "psyche", the carrying out cognitive processes.

Piaget J. (1997) state that knowledge theory appeared to Platon a reflection on mathematics and never ceased from Descartes, Leibnitz and Kant to contemporary works, to focus on two issues, whose range of proposed solutions report they are not yet solved: how mathematics is possible and where it comes from their agreement with reality?

Assessment made by him are still present, especially that a reference is a synthetic way a person can get to understanding the genesis of mathematics and logic. He appreciated that the universe can not be known by man than by logic and mathematics, products of own spirit. But he can not understand how to build mathematical and logical than studying himself, psychologically and biologically, ie by the whole universe (Piaget J., 1990, p.145).

We suggested earlier that mathematical entities are generated by mechanisms that are successively selected semantic empirical, philosophical and scientific. Thus, an explanation of mathematical knowledge can not be reached than empirical study investigating the possibility of mathematics, which makes it possible to explain how man can relate to semantic entities such as numbers and geometric figures.

From the perspective of empirical state of mathematics can be done in shaping the next staging arithmetic:

- quantitative operations are carried out without input code figurative verbal code;
- verbal quantitative operations performed in different numbering systems aimed at specific entities aware of figurative code;
- verbal quantitative operations made the calculation exercise;
- analysis of properties of numbers, considered as separate entities;
- limit number emergence as an expression of nature awareness numbers used and the opening of a new phase (maintenance numbers, relations between them, their properties etc.).

Regarding the genesis of the term *number*, Matilda C. Ghyka (1981, p.414) reveals that before the Greeks, who have thoroughly studied the fractional and integer and then found, with square diagonal ( $\pm 2$  for a square one) and the theorem hypothesis, irrational numbers, we must mention the Chaldeans and Egyptians, although they have not sought, as did later pitagoricenii - to clear the abstract idea of the number of its practical use, they made to carry out arithmetic and geometry for practice (the *arpentorului*, the very etymology of the word *geometry*) progress that the Greeks took advantage.

The rhythms of becoming arithmetic is true for the empirical study of geometry. Oscar Becker (1968, p.37), analyzing the Egyptian and Babylonian geometry, specify that it should be noted that all the fundamental pre-Greek geometry is not a *pure science* or *independent*, but a *practical science*, namely the *art* of calculation and measurement of space, areas and volumes etc., which should not be considered otherwise as may be measuring and calculating weights, the heaps of coins etc.

Philosophical mode of development of mathematics is established as a consequence of developments in empirical way of doing mathematics. Stage theory of mathematics begins with the distinction between existence thus demonstrated mathematical design (characteristic of empirical mathematics, figurative dependent processes) and the existence of *abstract mathematics*. In Greece, Platon makes a distinction between "objects intuitive" and their images, figures considered "in itself". We notice here how philosophical approach if we analyze how the abstract mathematical entities are originally designed.

The emergence of numbering systems, allocation of properties to certain numbers, the design of numerous procedures for solving arithmetic and geometric nature of empirical issues (trade, construction, navigation etc.) have the effect of secondary development of a distinct semantic relations. Theoretical approach is achieved by taking past performance through reorganization and emergence of *nefigurative* ways of rationing. In this way extends the opportunity to seize the properties of numbers and geometrical figures, moving to new subjects, more complex, made figurative (Culda, L., 1989, p.363), as if the first objects of mathematics empirical.

Therefore analyzes the genesis of the terms designating positive integers and geometric shapes, as those relating to the characteristics of the first calculation, revealed dependence on certain figurative semantic processes. Greeks find knowledge about hair and odd, to which Plato alludes, quite clearly exposed at the end of the ninth book of Euclid colled *Elements* and, combining geometry with arithmetic, reach *incommensurability problem with diagonals of the square side*, being such as Lucian Culda appreciate and to limit knowledge of processes mediated figurative.

They were aware of this limit and made irational problem "that, as the question of the *unique infinite* (in number) and *infinite unique* (in size) generated searches that have drawn attention to the meaning of mathematical terms used and the methods of thought. A prime example in this respect is the text of the famous Platonic dialogue, the *State*, between Socrates and Glaukon.

Platon's contribution to the separation of figurative thinking is revealed by the distinction he makes between the *sensitivity* (includes visible objects of knowledge), and the *intelligible*, which distinguishes the use of knowledge objects sensitive images (visible) using ideas unmediated knowledge of image. In fact, Plato distinguishes between *empirical* knowledge, awareness controlled figurative and *dialects* that are beginning to realize how theoretical significance, as evidenced in the case of the emerging theory of proportions.

Oscar Becker (1968, p.106) and noted that the proportions were still considered the pre-hellenic mathematics, for example, similar triangles, but the demonstrations to be made separately for each kind of size (numbers straight bodies, weights, times, etc.). Only when Euxodos, refers to the size proportions theory in general, subordinate only axiom measurement and thus made the transition from empirical to the theoretical mathematics, or, as Plato said, the transition from "the sensible" to that of "intelligible".

Most exegetes agree that the first scientific field that could be was the mathematical, because it is the only cognitive domain that can produce semantic tools.

This performance is possible because the mathematical knowledge of mathematical entities is developing semantic tools and products throughout nature mathematical cognitive act (the whole of nature mathematics) mathematical entities diversified. This situation is met in any other scientific field.

Lucian Culda (1989, p.369) make a reasoned dissertation on this. He believes that the gradual accumulation of many mathematical entities creates conditions for mathematicians to form semantic mechanisms able to identify multiple relationships between various entities mathematical mathematical structures new then to take as a subject. Mathematical thinking as often results in mathematical theory and methods of calculation performed nine or variants of proof of its correctness, in a word, the new tools of mathematical semantics. From this perspective, mathematical knowledge type seems to be a self-constructive process, leading to increasing complexity of mathematical thinking domain.

From the above results do not accidentally speaking in contemporary debates, not only mathematics *psychology* but also by *ontology* and *epistemology of mathematics*. Mathematical thinking of becoming history shows that *scientific progress*, the work of mathematics and mathematical entities go through two stages: the *pre-mathematical* systems characterized by restricted activity, nuanced understanding of private cognitive mathematical approach, which depends on the correct interpretation of the nature of mathematical objects, of which that J. Piaget called "their agreement with reality" and resume mathematical approach.

## 1. The interdisciplinary educational function

Interdisciplinary issues seems a "adventure" difficult knowledge that can change anyone in the discipline which owns and practicing. Only an interdisciplinary approach to a field of knowledge the researcher throws in arms unknown.

Many achievements of mathematics are used by the experimental sciences and humanities. The secondary level and in classes V-VIII, *proportionality* (linear function and its properties) is used constantly. Realities of the Romanian school and shows the difficulties western mathematics teacher to understand certain concepts. Therefore, collaboration with other disciplines undoubtedly remain useful. We give the example of the *experimental function* which is itself very important in experimental and human sciences.

Generally speaking, the concept of *function* is used in all sciences. The first problem that occurs is that the concept of *variable* and *image* imposed by function, which often takes on the notion of *cause* (variable values) and *result* (results shown).

Meet students in mathematics and reverse axes say, interpreting a graph of a science that is constantly zero function in terms of value, no changes really confusing and invalid function. These problems involve teaching studies that can be shared within the various disciplines.

In mathematics *causes* and *consequences* are in principle well spotted. If  $p \rightarrow q$  is true, and if  $p$  is true, then  $q$  is true. The cause is  $p$  and the *consequence* in  $q$ .

In the human experimental science, if the result is observed because it is visible, you can discover the cause. We assume an aspect of this case, whose meaning is different from that of the word in mathematics. Reasoning and experiment confirms the hypothesis and thus cause appears as a conclusion of reasoning. These difficulties must be studied in relation to language use, both with Romanian language teachers and those of philosophy and logic.

Teachers of history and geography we have pointed out that students often confuse the continent, a country belonging to that continent, a region of the country. For example, *african countries*. Everything is on the same plane. The problem here is that of *classification by inclusion*, known professor of mathematics or the natural sciences.

In economics or geography "percentage change" of a function is not the same as that used in mathematics. This vocabulary is eliminated in the mathematical sciences. In principle, knowledge of statistics and probability in mathematics make it possible to remove it in use in other disciplines.

Philosophy and mathematics have many common views about the content, which embodied epistemology. French papers on the role of interdisciplinarity in education reveals the existence of multiple cases resulting need for *disclaimers* between language and mathematics. For example, English teachers often complain about the difficulty of distinguishing students defined by the indefinite articles. Professor of Mathematics Oneness is important for example: "punctuation" or "a punctuation mark", for him the two expressions are not the same (different).

To highlight the role of interdisciplinarity in education can provide practical examples of students from various law growth (or development) and proportionality. When treating the *exponential function*, a link with economic and social sciences is possible on these issues: knowledge of how a population exponential, or exponential growth of pollution in the past 10 years, why not increase when the maximum may be exceeded logistic model law (cops, JP, 1993).

If we want to offer other examples of interdisciplinary touch, we can give to students an example of growth and putting them to compare the proportions of a statue faetus with African, Indian or an amulet that has the head much higher in relation to body (Kepes, G., 1998, Waddington, CH, 1991).

Mathematics put out there the similarity forms and natural failure of proportionality. If you measure the ratio H/T (total body height body height H T) during the life of the fetus to adult, you can see this report is not constant (Medawar, P.B., 1995).

Another practical example on the importance of interdisciplinarity can be at the "sun". Students may prepare a statement on this subject covering the following:

- building a model solar system (used knowledge of distance, mass, astral region, spatial geometry, proportionality;
- study planetei Terra movements around the Sun (knowledge of geography, study ellipse, etc.);
- find in history people who worshiped the sun (knowledge of history: Egyptians, Incas etc.);
- build a model solar architecture (knowledge about the structure of matter, nuclear reactions, energy emanating from the sun etc.);
- the effect of sunlight on particular objects, observing the shadows and links to the changes committed (you can use the theorem of Thales, parallelism, the shadow of a triangle, a circle, ellipse etc. can be reunited (Berté, A., 1993, p. 1312).

In terms of psychology of education correlate with other objects of mathematics education and extracurricular activities is of particular importance to the student's personality profile formation (Pera, A., 2006).

Skills, attitudes and values targeted training profile has a transdisciplinary and interdisciplinary character, and define learning outcomes sought by applying a curriculum. Thus, the primary must be taken into account:

1. *Assimilation of the main basic elements of conventional language - reading, writing, numeracy.*
2. *Stimulating the child in the skill, knowledge and mastery of the environment near.*
3. *Stimulating the creative potential of the child, his intuition and imagination.*
4. *Training motivation for learning, understood as a special activity.*

Achieving these objectives is interdisciplinary and can not strictly separates an object from another, math, language and communication with, representing basic elements to achieve the goal.

In conclusion, we can say that we pursue mathematics learning experiences in primary school, and beyond, we find that by reference to objectives and features of learning, a class can not, without overcrowding, but a multi and interdisciplinary character.

The literature supported the concept of *learning* a lot of definitions and approaches. *Encyclopedia Britannica* defines learning as "a relative change of behavior, based on experience". Cognitive psychology interprets *learning* in terms of

"information processing". Learning psychology shows that learning requires a systemic duality: *learning as a process* involving a succession of states, actions and internal events, consciously completed, and, as a *process of analyzing heuristic* consists in generating appropriate responses to situations in which placed the learner, and *learning as a whole product* that is re new results produced by business process and refers to knowledge, skills, concepts, ways of thinking, attitudes and behaviors.

Institutionalization of learning theory and general psychology core activities psychogenesis phases were defined for different ages *play, learning and work*.

Today is a clear distinction between performance and competence, between *actual and potential*, therefore, learning as a factor potentially present throughout life, is an essential indicator of conscious mental development. It speaks more than *learning by experience, creative learning*, heuristic processes as assimilation (Nicola, Gr., 1996). Beyond the plan objectives and the relationship teacher - student, to understand the formation of concepts by highlighting the divergent tasks requires understanding and implementation in a teaching project report convergent - divergent within each unit and each system of knowledge. In this case the teacher is required not only to cause and maintain a general activism, but to control the chain of relations concept - problem – situation, problem - action - competence (Nicola, Gr., 2004, p.26).

As shown in Grigore Nicola, teacher skills, which depends very much on how the student understanding of the topic taught, lies in the flexibility of coordination as a problem for structured content, educational objectives set. It was noted that the lesson, regardless of content, is an experimental type of psychology lesson, the student practice thinking productive, acquire knowledge and progress in self-knowledge. Only after several decades of concern for tech teaching, to understand that the old goal of pedocentrismului teaching can be done by calling psychology: educational activities focusing on self-knowledge, identity, self-control, *problem solving* strategies, communication, observation of the future.

The scientific literature and art, spontaneously and sporadically, psychology has influenced human behavior. In the face of education programs with priority objectives personologice you can not help wondering, if students can learn what the curriculum requires targeting a systematic and long-term impact, turning to teaching real science displayed on solving problems.

In this context we can not anticipate the diversity of ideas about human motivation, is generally a case of learning archetypal, exemplary psychism primary forms (temporal nerve connections) set genesis sites, concepts, skills, high systems orientation and strategies is the province of "major type of cognitive processors", the meaning of life for large segments of the individual. Regardless of appearance figural, symbolic, behavioral or semantic content, it can present the subject in an infinite variety of situations, but tends towards two distinct forms total: *amount and structure* (Nicola, Gr., 2004, p.31).

The evolution of chemical and physical sciences were discovered laws of structuring elements, factors, conditions, Kant was the first philosopher to use the

term. Discovery of nerve cells, cortical structures and the endocrine system caused a wave of expectation and confidence in social structural analysis.

The nineteenth century saw a significant jump, especially through Darwinism and anatomo-physiology and biological sciences generally through evolution, meaning that correlate structure was defined, as, *function*. Later Wertheimer (1960), Koffka (1935), Köhler (1947) have generalized the concept to the structural entities plans isomorphism physical, biological and psychological, linguistic, aestheticians and philosophers were concerned with taxonomy structures. Thus, E. Spranger defines six structures: theoretical, social, aesthetic, political, economic and religious.

Koffka and Wertheimer's conception had a general impact on psychology in general and especially Psihodidacticii. Like any learning content, "concept", began to be understood as invariant, cognitive and operational model of an essence, modeled ideation or figuratively as a background of stability and certainty, beyond the home, budding and attributes. Not accidentally, Max Wertheimer, who decided these classifications, was a mathematician, musician, psychologist.

Nowadays, structural similarity assertion generated the most important consequence: revealing a kind of common mental function discovery, inventiveness and learning and this in a double sense:

- the content object or situation of concern;
- the cognitive process.

Romanian research in the field today distinguish between "maintenance learning" and "innovative learning - forward-looking", the latter giving him the position of avant-garde in contemporary society. It proposes a participatory learning, the transfer of knowledge from teacher to student exposure changes from working together, sharing perceptions, representations, experience resolution imaginative approach, ideals, values, general - human. Option for learning is expressed in a "local context of real life." It means so, "integration", "relevance", "responsibility", only use the term "mentalizing". An alternative to the "fundamental course", the teacher teaches and the students listen, is *innovative* learning, focusing on creative effort, imagination, thinking divergent style programs run by experts in a permissive style - formative (Nicola, Gr, p. 41).

In another research conducted on human learning alternatives, Grigore Nicola shows that diversity is determined by four groups of factors aimed at four elements:

- problematic situation that is made subject;
- availability of the learner;
- progress of assimilation factors new experiences;
- new mechanisms "construction".

The author shows that the combination of variations of these dimensions, it's four paterrn toward which, depending on conditions, learning processes:

- *connection stimulus - response*;
- *cognitive learning*;
- *social learning* in the sense that it is done "with landmarks cognitive - defined social guidance";

- *creative learning*, namely by *divergent problem solving* (Nicola, Gr., 1979).

From the perspective of the mentor relationship - student learning about four trends acquired a new valence: all mentalize and therefore can be optimized both in terms of both content and motivation. This is explained by Grigore Nicola personalist meaning - the social learning mentor inoculated it with every action, regardless of content, form and product.

In another study, the same author has tried to identify the causes reluctance education systems (the practice of school education) to exercise creativity in teaching. The point reached is that "creative potential is an internal condition of normality for each person and expressed spontaneously in all forms of behavior" (Nicola, Gr., 1995, no. 3-4).

The conclusion that we must realize is that modern school should continue to focus on the assimilation of concepts and skills developed social, so the acquisition of behavioral skills with strict parameters set and controlled. This makes the development of creative thinking (divergent, original) is hindered by the refusal, reinforced, bantering. The human personality is frustrated by the law sees the difference, and imaginative alternatives.

Other research shows that the Romanian area school has not changed the general activity measure awareness of the need for "individualized" learning, although the so-called "movement creativă" took place priority on the education scene, demonstrating the possibilities of stimulation and creativity, the use creative thinking, as reinforcement (reward) conceptual learning.

Experimental research that addressed specific forms of unity "convergent thinking" - "divergent thinking" in the education objects have not had an effect on later school factors than the general opinion that "possible" (Nicola, Gr., 1981).

After this brief but eloquent statement of issues to pursue some ideas about the role of geometrical figures in mathematics learning, but not before revealing a possible *epistemological obstacle* (Glaeser, G., 1981).

Negative numbers, and the imaginary, have been used over time as simple intermediate calculations or solutions of equations of degree two or three that immediately remove them. A great mathematician as Descartes still refuse mathematical objects status negative numbers.

Lazare Carnot, contemporary mathematician d'Alarbert, refuse to believe that:

$$\begin{array}{ccccccc}
 & 1 & & -1 & & & 1 \\
 -1 & & & & & & \\
 & \text{—} & = & \text{—} & & & \\
 \text{higher than} & \text{—} & & & & & \\
 & -1 & & 1 & & & -1 \\
 1 & & & & & & 
 \end{array}$$

because, obviously,  $1 > -1$  și  $-1 < 1$  deci — have to be

Students may say:

In a division where the dividend (dividend) is an odd divider (divisor) quotient should be high dividend. So if you divide 1 to -1, fewer than 1, we can find both (result) -1 which is equal to a lower dividend.

These things can hardly be found in a classroom. But one day we meet a very good student who mastered the facts and tells us that the result may be higher dividend if the divisor is inferior to 1, the positive numbers we know. Therefore, the introduction of negative numbers can not be achieved only formal, as in our example, this is not enough to give "life", to put it that way. Need to associate a representation beyond any other representations. The difficulty lies in being able to change a law representation once one is established. It is necessary to note that effective representation aditionare an obstacle to what is effective for multiplication.

Negative numbers have acquired the status of *numbers* at the same time with imaginary numbers, after it has entered *cuaternioanele* Hamilton after the Gauss has proposed a complex geometric representation to facilitate the representation of operations: adding vectors and multiplying the amounts by similarity.

We must respect two things complementary and indispensable to have a positive effect on students' mathematical thinking: *consistency* and *coherence numerous formal calculation* in the geometric representation (Berté, A., 1993, p.66-67).

To reveal the role of geometrical figures in mathematics learning we will focus on two examples:

- learning problems with respect to the circle circumscribed topic;
- learning problems triangle inequality theme.

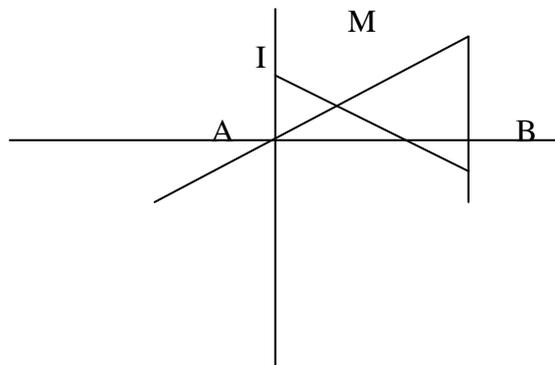
We can imagine the following scenario with profound implications for the psychology of learning mathematics. Circumscribed circle theorem on the start of the following premises:

- a. students must first insist on a definition of median segment;
- b. this approach allows us the meaning of equivalence, on which I insisted earlier;
- c. students will explore how then is possible to pass the circle by two points, then three;
- d. dialogue with those involved in solving these tasks allows them to track progress in research on the demonstration;
- e. research itself naturally begins by examining specific cases and progressively, to reach the general case;
- f. about the general case is explained as a milestone in a figure, inoculând this point of intersection of three median;
- g. have also addressed the difference between abstract and representation of geometric objects on them;
- h. conclude the proof by putting cociclicității problem of four points which we consider at least five aspects.

To solve this problem in perspective psycho - teachers should keep in mind at least five aspects:

- the characteristic properties of the median must take into account before the triangular inequality, highlighting at least two explanations wrong here (*there is a special distinction and confusion between involvement and equivalent*)
  - mental images and the circle passing through three points;
  - the organization of research;
  - ontological status of the figures;
  - possible existence in the demonstration of *true* or *false sentences*, both mathematically and logically and the equivalence problem sentences.

The experiment can begin by using triangular inequality, which says:  $M \in \text{median } [AB] \Rightarrow MA \neq MB$  which is opposed expression  $MA = MB \Rightarrow M \in \text{median } [AB]$ .  
( $\Delta$ )



Demonstrations:

1. If  $M$  does not belong to the median,  $M$  is located in one of semiplanurile that it determines, or at which it contains the  $A$  or the one that contains it to  $B$ .

If the plan is that it contains the  $B$ , for example, when:

$$(MA) \cap A = \{i\} \text{ and } MA = MI + IA = MI + IB$$

$$MI + IB > MB \text{ so } MA > MB$$

If  $M$  is another semiplan, we say that  $MA < MB$ .

We preferred to use this property to show the result on the circumscribed circle which allows us to unlock students triangle inequality on time, as will be seen in dialogue with students following, since the teacher adopts the method shown here.

It may occur a problem in the classroom situation. These links are due to students' learning difficulties and not an axiom that allows academic exposure. Therefore, all factors considered pedagogical: objective and subjective, when we analyze this aspect of learning mathematics using geometric figures.

2. In most cases, students tend to say and write:

$MA = MB \Leftrightarrow M$  is the middle segment  $AB$ . To analyze the possible existence of privileged directions as we can ask students to identify the points  $M$  given that  $MA = MB$ . Most will say that it can find only one point to meet this condition and this is the middle segment  $AB$ .

Hence, if the segment AB is always drawn and has the advantage of being horizontal line AB is not privileged and students find it difficult to deceive.

Research error is possible by discussion with those who are able to find other points equidistant from A and B. Evaluation of a much larger space than a sheet of paper is always useful as pedagogical point of view helps us to build a circle imaginary as all points equidistant from a fixed point, something that contributes to the development of geometric thought (space), so necessary for learning geometry in particular and mathematics in general.

Regarding the confusion between *implication* and *equivalence*, we can say that there are two notions of multiple non-formal implications, but too much involved in the confusion.

It is correct logically and mathematically that: if M is the middle segment AB, then  $MA = MB$ .

Or, for students a "if ...then" may be interpreted as an equivalence, which is often used in the current. For example, a father tells his son: "if you got a good grade, you buy a ball", it is understood clearly that "if you got a bad grade, i will not buy me the ball".

In other words, "to have a good grade" and "to buy a ball" are equivalent because *contrapozitiia* (opposed) *reciprocii* is implied.

Usually the children (preschoolers and even classes I-II) mental image of the circle is constructed by observing the full circular objects, like music discs. As demonstrated by French practitioners (Berté, A., 1993, p.80-85), as the concept is constructed, the image must move towards a closed circular line. But for some students, the center point of the circle remains a circle. In terms of psychological explanation is that mental image development is hindered by the fact that the term "center of the circle" gives an idea of belonging to the circle and also that it comes to the surface or area of the circle without specifying that it is an abuse of language. Sometimes, students are excited and ask to have words meaning "square" and "triangle".

When a student says that the two points A and B pass three circles, we must draw it, it can translate two very different mental images, as shown in the diagrams below.

In terms of psycho when it comes to the existence of a circle passing through three points, naturally directs students to analyze cases, until the end, following discussions between them, the general case. So it has an important role here and divergent thinking (how manages to fulfill *divergent tasks*) and *overall psychological factors* by which the acquisition of new knowledge. Was found and the Romanian specialized research that is a good heuristic problem solving by analyzing individual cases, assigning a role and organization of research methodology is here.

From the methodological perspective we see in our examples the existence of contradictory circumstances, "where only opt for rectangular triangles and equilateral triangles where for." Contradictions are beneficial because they allow us to move forward towards exact circumstances. Some students may focus either on a possible rectangular triangle or on an equilateral triangle or simply on an isosceles triangle. In

terms of psychological and logical, in the research seems natural to think of an isosceles triangle, because when we think of search center axis of symmetry and thus progressively tend to the general case.

The idea of increasing the assumed small triangle belongs Brasseur Frenchman Guy who tried to motivate the demonstration and make us understand the representation of a point in geometry: a point is a result with a small stain that can not zoom in like a triangle, the example (Reynés, F., 1991).

From the perspective of didactics of mathematics is very important in teaching and learning, both teacher and student must have an accurate picture of the "status" of geometrical figures.

When the start time geometry, the teacher should be careful so to speak in terms of "representations": "you are two points ...". It was found that abuses are inevitable during the dialogue generated by language.

A great difficulty, to start in geometry, is to avoid confusion between *objects geometric* that are actually *concepts*, and their *representations* are figures *drawn on the board*. Confusion between objects and their representations generates numerous misunderstandings about what is actually a demonstration in geometry. Most students believe that "the design" on the board is evidence of his existence in reality.

May occur in cases where a student asking questions like: "Why then trace the circle and triangle first". Finally, if the purpose of our proof is to produce a triangle and a circle around the issue is legitimate. If we put the problem in terms of *construction* and not in ontological terms, the existence of the circle, students will understand the meaning of the verb "build". In mathematics, as demonstrated practically Yves Chevallard and Michel Julien (1991) "construction" means producing a geometric construction based on reason, for students 'construction' means achieving a design which is due to confusion between conceptual objects and drawings of these objects.

That is why it is important that during teaching hours must intensify these activities that would cause students to be able to make the distinctions necessary, but fully understanding the language teacher and avoiding the equivalence of sentences.

It is known that the two sentences are logically equivalent if they are true or false together at the same time, the meaning of truth values of their variables. To be understood by students as the teacher can use the word "sentence" in place of the word "sentence", which allows focusing on the distinction between "sentence" and "object". Finally, for most students "AB goes through ..." is a phrase which shows that not only can not understand the equivalence between the phrases but no equality between objects (Reynés, F., 1991, p.43).

From experiments made by us we noticed that students understand that  $x+3$  is an object, here a number, and that  $x+3<8$  is a phrase, which is true for certain values of the variables, and false for other values, and that  $x<5$  is another phrase, equivalent to the premise. Therefore, pedagogical and didactic perspective, systematic exercise of recognizing objects, the *true* and the *false phrases*, must be made during hours of teaching responsibility, to increase efficiency of learning mathematics. There are many students who think that everything is written in mathematics, are only true

statements. Annie Berté (1993, p.5-6) found that the same thing happens with equivalences and implications.

From the revealed it can be concluded that as long as the teacher is not aware of the language it uses and does not provide sufficient explanations and demonstrations for students to be able to make distinctions about which he spoke, to no surprise that many students think that a negative sentence is false.

## REFERENCES

1. Barbin, É., (1991), «Les Eléments de Géométrie de Clairaut: une géométrie problématisée», în revista *Rèperes*, nr.4, iulie, Paris.
2. Becker, O., (1968), *Măreția și limitele gândirii matematice*, București, Editura Științifică.
3. Berté, A., (1993), *Mathématique dynamique*, Paris, Edition Nathan.
4. Bronowski, J., (1998), *The Origins of Knowledge and Imagination*, London, Yale University Press.
5. Chevaillard, Y., Julien, M., (1991), «Autour de l'enseignement de la géométrie au collège», *Petit X*, nr. 27, Paris.
6. Culda, L., (1989), *Geneza și devenirea cunoașterii*, București, Ed. Științifică și Enciclopedică.
7. Schaff, A. (1966), *Introducere în semantică*, București, Editura Științifică.
8. Flonta, M., (1971), «Problema acordului structurilor matematice cu datele experienței» în *Teorie și experiment*, București, Editura Politică.
9. Gaborieau, J.P. , (1993), *Mathématique et réalités*, Paris, Payot.
10. Ghika, M. C., (1981), *Estetica și teoria artei*, București, Editura Didactică și Pedagogică.
11. Glaeser, G., (1981), «Epistémologie des nombres négatifs» în *Recherche en dialectique des mathématiques*, vol. 2-3, Paris.
12. Kepes, G., (1998), *Module, proportion, symétrie, rythme*, Bruxelles, Edition «La Connaissance».
13. Koffka, K., (1935), *Principles of Gestalt Psychology*, New York, Harcourt, Brace and World.
14. Köhler, W., (1947), *Gestalt Psychology Today*, New York, Liveright.
15. Medawar, P.B, (1995), *Essays on Growth and Form*, Oxford University Press.
16. Mouloud, N., (1996), *L'analyse et le sens*, Paris, Payot.
17. Nicola, Gr., (1979), «Învățarea creativă: Concept și Metodologie», în *Revista de Pedagogie*.
18. Nicola, Gr., (1981) și colab., *Stimularea creativității în procesul de învățământ*, București, Editura Didactică și Pedagogică.
19. Nicola, Gr., (1996), «Potențialul creativ în profesia didactică», în *Revista de psihologie*, București, , nr. 3-4.
20. Nicola. Gr., (2004), *Comunicare didactică și creatologie* , Sibiu, Psihimedia.
21. Pârvu, I., (1981), *Teoria Științifică*, București, Editura Științifică și Enciclopedică.
22. Pera, A., (2006), *Morfologia și puterea gândirii. Limitele psihologiei* București,

Editura Didactică și Pedagogică.

23. Piaget, J., (1990), *Psychologie et épistémologie*, Paris, Gauthier.
24. Piaget, J., (1997), *Logique et connaissance scientifique*, Gallimard, Paris.
25. Reynès, F., (1991), «Géométrie au trahison des dessins», în *Petit X*, Paris, nr. 18.
26. Țurlea, M., (1998), *Construcția axiomatică a matematicii*, București, Editura Academiei Române, p. 240.
27. Waddington, C. H., (1991), *Principe modulaire et forme biologique*, Bordeaux, (Bibliothèque de l'École d'Architecture de Bordeaux).
28. Wertheimer, M., (1960) *Productive Thinking*, New York, Harper.

## LEARNING STRATEGIES FOR STUDENTS

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**Abstract:**

*The present study aims to inventory and analyze the learning strategies the students use independently, from the self-management perspective. In a learning strategy there is the interaction of more components, which supposes a better use of resources; this way, it is necessary both knowledge, practice and personal and contextual adjustment of learning strategies. The management strategies of resources correlate with the steps in cognitive, metacognitive, motivational, affective, adjustable plans, with taking notes, reading and academic study activities.*

**Key concepts:** *strategies, university education, resources*

Building learning strategies is determined by the fact that the last one is characterized by the following elements (Zlate, 1978, Neacsu, 1999): it takes place in an institutionalized environment, by human agents, in concrete conditions, with a vertically and horizontally relation; it is a process controlled from the outside, which tends to become self-controlled; it is a conscious step, organized by a clear conception (plans, programs), having finalities and a graduate and sequential progress; it has a formative and an informative character; it depends on motivation; it has resources, content, specific methods of organization (by strategies, methods, procedures, technics), it takes time (assigned, necessary, planned, consumed), it respects psychopedagogical norms, it uses evaluation criterions and feedback and feedbefore possibilities.

University education improves and continues school education, being differentiated both by the specific character that the superior/university education involves in comparison with preuniversity education, and especially, by the characteristics of the personality development in every life period.

Northedge (2005) dealt with the process of independent study at academic level, showing that, in a well organized activity, two components appear: *the intelligent studying*, meaning the investment in personal development, the taking over

of study control, the use of computer for study and *the development of essential abilities* of reading, taking notes, expressing, working with numbers and tables, searching online, writing and elaborating academic texts.

So, the study organization supposes: the identification of place and climate, of necessary conditions; the arrangement of the materials; the creation of motivational mood to encourage this activity; the organization and respecting a study program.

**1. The strategies** are actions made out of a series of decisions, each one ensures the passing to the next sequence of education in accordance with the reevaluation of acquired information during the previous steps (Potolea, 1989). **The decisions** took by those who lead their education take into account: the content, the place of study, the purposes formulating, the identification, the use of resources, the choice of methods and forms of activity, the applying of some methods of evaluation and adjustment of the study accomplished.

The learning strategies can be determined by the didactic strategies (that belong to the teachers), the last ones can be understood as: methods of approach to teaching/learning/evaluation; manners in which the teachers combine: the methods, the means, the ways and forms of organization of the instructive-educational activity, the relations and the interactions in the classroom.

In an extended acceptance, the didactic strategies include, moreover, in comparison with the previous elements, the way of fulfilling the didactic communication, the time assignment, the tasks, the teacher's interventions, the nature of the evaluation tests. The instruction strategies, as interactions between the teaching strategies and the ones of learning, represent integrative ways of approach and action, procedural structures, methods combination, means, forms of organization (Cerghit, 2002).

*The classifications* of didactic strategies refer to:

- cognitive, action/psychomotor, affective-emotional strategies;
- strategies based on the automatism/ on complexes of habits, innovating (creative) strategies, imitative strategies;
- inductive, deductive, transductive, dialectical, hypothetical, analogical, analytical, synthetical, descriptive, interpretative, ludic, mixed strategies;
- algorithmic, heuristic, mixed strategies;
- frontal, of group, of microgroup, of working in pairs, individual, mixed strategies;
- external or internal strategies.

The internal strategies are called strategies of “self-management or of self-leading of study” (idem, 2002, p. 283).

We understand by **learning strategies** - the way the students (young or adults) approach the study tasks, using in a combined manner certain study methods, ways, forms of activity organization, means of teaching and the human relationship that accompanies them. The learning strategies are defined (Negovan, 2004, pp. 48-49) as

general plans of approach of the learning tasks or as a series of notification operations of the information and their treating. The strategy contains: the learning set of instruments, the learning measure, the learning degree of coordination or directiveness, the socio-affective insertion, the time management (Meirieu, 1993).

*The choice of the learning strategy* depends on a series of factors (factors that influence the study, generally) and, that's why, we consider that the student must be conscious of the establishment of learning strategies or it must be fulfilled in an explicit way.

The learning strategies are not all study strategies, as Negovan (2004) showed, assigning to the study the quality of reflecting the entire autonomy in learning. In other words: the learning strategies are not yet study strategies.

*The strategies role* is that of providing the organization of the environment and of the learning process, of adjusting it to the needs or the own specific, becoming resources for self-management.

The learning strategies contribute not only to understand the way the learning takes place and its adjustment, but also to fulfill the understanding during the learning process, to improve the concentration, to apply the emotional control, to motivational and voluntary support.

Some strategies are used to transform the information into a shape more accesible to the student, while others activate the attention, block the interferences, structure the material, facilitate the reverification. So, the learning strategies suppose actions with intention, the centering on these actions, with the support of the necessary effort.

Anderson (2001) proposed a series of *criteria to identify an effective learning strategy*. This should allow the students:

- to do the relevant personal instruction;
- to describe the attributes of a quality performance;
- to autodirect the personal practice and progress;
- to recognize the personal limitations, preferences and needs;
- to adopt an approach more planned in acquiring knowledge and aptitudes;
- to accept new and various learning challenges with more confidence, diligence and persistence;
- to pay more attention to the processes and the means of learning, to obtain the progress.

The strategies must be selected and applied flexible, depending on the situation; they interact with the learning types. The strategic behaviour involves, besides the strategies knowledge and metaknowledge, the self-perception on competence, the assignment of the effort in learning tasks. The use of the learning strategies develops during the period of instruction at school and continues in the university education.

## **2. Types of learning strategies**

The strategic learning (Paris, Lipson, Wixon, 1983) refers to the learning metacognitives aspects, which can give efficiency to the activity. The learning

strategies include declarative, procedural and conditional knowledge. Pintrich (2000, p. 401) shows that in learning are activated:

- **cognitive strategies** (used to understand the texts, to solve the problems, to remember, to formulate the hypotheses, the interferences, to make decisions);
- **metacognitive and self-adjustment strategies** (used to plan, to monitorize, to adjust the learning);
- **resources management strategies** (applies to all the internal resources and to the ones from the environment).

Other learning strategies suppose self-talk, the mental and practical representation of what it is learnt.

The strategies involved in learning can be: cognitive, metacognitive, motivational, affective, of taking notes (by the page organisation, the memorizing, the summing up of the ideas, the condensation of the information, the differentiation, the hierarchical placing, the formulating some questions, completions), of reading, of study, of adaptation or adjustment (Figure nr. 1):

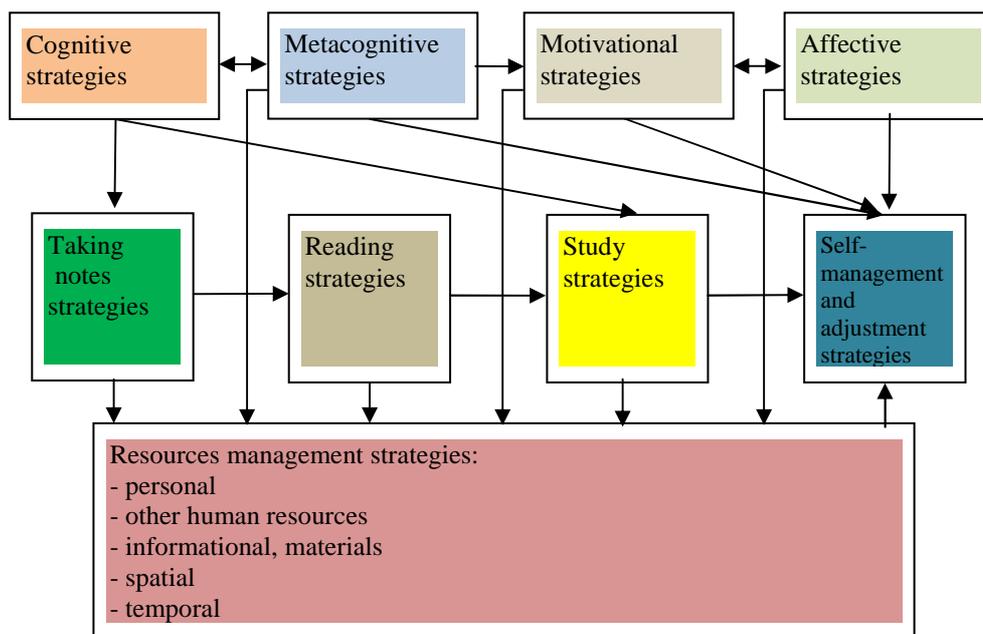


Figure nr. 1: *Strategies involved in learning*

**A) The learning cognitive strategies** can be applied to the simple tasks of memorizing or to some tasks more complexe that require to understand the information (to understand a text or a reading) and they can be, in their turn, strategies *of repeating, of elaboration and organizational*.

To complete the information, the sources strategy can be used, meaning their identification depending on the existing bibliography or the descending strategy,

which is based on the source, the author quoted more often. The repeating strategies involve the memorizing of some terms to learn or saying aloud some words during the reading of a text. The elaboration strategies suppose the paraphrase or the summary of the learning material, the creation of the analogies, taking some generative notes (case in which the students reorganize and relate the ideas from their notes), explaining of the ideas from the learning material to someone else and formulating questions and answers. Pointing out or underlining the text in a passive or unreflective way can be, rather, a repeating strategy than one of elaboration. The organizational strategies suppose selection actions of the main ideas from the text, the sketching of the text or of the learning material, the use of some specific techniques for the selection and the organization of the ideas from the material.

Other cognitive strategies refer to: understanding the text; solving the problems; remembering the main ideas; formulating the hypotheses; simplifying through suprageneralization, transfer, interference (the analysis of the information, the use of the context, of the nonverbal); the verification of the hypotheses.

So, at a cognitive level, it can operate through: strategies of picking up; strategies of understanding; strategies of conceptualization; strategies of memorizing-stocking-bringing-up-to-date, strategies of solving the problems; decisional strategies.

#### **B) The metacognitive and self-adjustment strategies**

The self-adjustment metacognitive is realised through the strategies of *planning, monitorizing and adjustment*.

*The planning* of the activities includes: the establishment of the aims for study, the skimming, the establishment of some questions before reading the text, fulfilling some tasks of analysis of the problems. These activities can help the one who is learning to plan the use of the cognitive strategies or to bring in the foreground the relevant aspects of the contents, facilitating the organization and the understanding of the material.

*Monitorizing* the activity includes the attention directing during the reading of a text or during the listening of some ideas, the self-testing by using some questions on the material, the verification of understanding a reading and solving the tasks in an examination situation.

These strategies alert the one who is learning about the failures in directing the attention or in fulfilling the understanding, and these failures can be "fixed" using the adjustment strategies.

*The adjustment strategies* are bound to the monitorizing strategies. As the students monitorize their learning and performances in comparison with some aims, objectives or criterions, this monitorizing process suggest the need of adjustment of the process in order to bring the behaviour along the same lines with the aims or to bring closer to a criterion. For example, those who learn ask questions while they read in order to monitorize the understanding, then go back to read a sequence of the text, this reading again being an adjustment strategy. Another type of self-adjustment strategy for reading takes place when a student slows down the reading speed when he reads a text more difficult or less familiar.

The verification of any aspect of the learning material (reading notes, texts, lab materials, passed exams or papers), that someone doesn't remember or doesn't understand them while he studies for an exam, reflects a general strategy of self-adjustment. Postponing the answer of some questions during a test and coming back to them later is another strategy that the student can use to adjust his behaviour.

In learning, other strategies can be used as: *the establishment of aims, the inner communication, the mental representation and the practical representation.*

*The establishment of the aims* must be a methodical action, in sense of attentive evaluation of the needs, the aspirations and the abilities. The proposal of the aims and their fulfilling combine to lead to an optimistical attitude in front of the obstacles. The aims have an important role in the stress management, in mobilization the motivation, the will, the attention: establishing aims on long-term, medium-term and short-term, clear defined, realistic, the student can learn progressively through motivated efforts, reducing the failure anxiety and passing beyond the limits in learning.

### **C) The study strategies**

Glen-Cowan (apud Negovan, 2004) presents an inventory of the study strategies in which includes: strategies of attention concentration on the theme study, management strategies of the time assigned for the study, strategies of establishment the priorities in accomplishing the learning tasks, strategies of listening and taking notes during receiving the information, the norms, the values, etc., reading strategies.

Taking notes is a way of organization and stocking the information, including both the proper step and their revision. The most known method of taking notes is the T system, where, in the left side of the page, on a restraint space, are identified the key-words and the personal comments, in the right side of the page, on the most extent space, are presented the main ideas, and at the bottom of the page are noted the main ideas (in summary) and the conclusions.

The revision of the notes supposes their completion, the verification and the correction of the terms or of the proper names, underlinig the text, the use of personal notes.

By formulating some questions it is pursued the monitorizing of understanding, but also the applying of the critical thinking. The learning material can be approached globally (by flying over), analytically, analogically, by experience, by exercise, by sketching, by summarize.

*The study strategies* (Neacsu, 1985, 1990) refer to: the attention concentration on the theme; the management of the time assigned for the study; the establishment of the priorities; the listening and taking notes, the use of the notes; the fast reading (with the technique of the scanning horizontally, the technique of the exploring vertically, the technique of the flexible scanning, the method of the key words); the critical reading or other types of reading; the anxiety control; the elaboration of the written texts (observations, observations, reading plugs, papers, summaries, etc.).

To develop the study strategies, the instructional patterns use "levers" as: the modification, the explicit instruction, the advice/the help. Even if the teacher can guide

the student in choosing and applying some learning strategies, to fulfill an adjustment of the learning it is necessary that the student use the metaknowledge.

**D) The resources management strategies** are strategies that the students use to control their environment; they refer to the organization and the control of the time, of the effort, of the study environment, calling other persons, colleagues, teachers, etc., and the use of the obtained support.

For the strategies problems from the learning management we can consider that: in formal context (in which we include the university environment), the strategies are self-managed; in informal context the strategies are self-directed.

The students adapt to the environment and they change it to correspond to their aims and needs.

The time management is realised through: the choice of the favourable moment for study, the use of time (the establishment of the priorities, respecting the terms), avoiding the postponing, applying some adjustments on the distribution of the temporal resource.

The motivational strategies in learning refer to: the involving of the one who is learning in establishing the aims of the learning; the planning of some learning activities integrated in the professional formation and development; the building of some positive expectations and, implicitly, of confidence in the personal forces (the establishment of some clear purposes, the accentuation of the learning importance, the graduation of the learning tasks in small steps); the consciousness of the task value: the involvement in learning tasks adequate to the personal needs and interests, understanding the connection between the present task and the future problems, the completion of the aims; the autoevaluation : pointing out the progresses accomplished in every step of fulfilling the task, remembering the successes from the previous steps of the learning activity; the development of the feeling of the self-efficacy and self-efficiency, the use of some adaptive self-instructions.

Woolfolk (apud Negovan, 2004) includes in the category of the affective strategies: the independent thinking, the development of the intuition regarding the egocentrism, the training of the inclination towards the correctness, the intellectual courage, the perseverance, the confidence in action, strategies to face the anxiety, the limitation of the competition, the control of the need to win.

The strategies of growing the self-confidence are realised through reassigning the failure to some controllable factors (as an equilibration of the assigning), the inventory and focus on the big points, on the opportunities, formulating some specific aims.

To tolerate the discomfort and the anxiety determined by the study, to eliminate the distractions it can be used the external support, to avoid the suprasolicitation.

The self-management learning strategies include a series of tactics which are different depending on the knowledge domains (idem, pp. 163-165): the learning sequences; the self-contract; imagining some action patterns; modifying the self-perception and the negative self-image; the anticipation of the difficulties and of the way to solve them; the self-giving of some rewards.

There are a few *differences in learning approaching between the theoretical and practical domains*. This way, in the domains in which the declarative knowledge is dominant (the theoretical domains) are necessary the strategies to focus the attention on the text, to build some sketches, to elaborate some ideas, while in the domains dominated by the procedural knowledge (the practical domains) are useful strategies that refer to patterns learning, but also to self-instruction, by comparing the personal performance to the one of an expert model.

The strategies must be known, taking into account, when they are already used and exercised. But, sometimes, the students don't use efficient learning strategies because they don't know them, they don't adapt them to the context, they don't correlate them with the aims, the contents and the learning resources.

### REFERENCES

1. Anderson, A. (1997). *Learning strategies in physical education: Self-talk, imagery, and goal-setting*. (www.proquest.com, <http://www.slc.sevier.org/mods.htm>, accesat în 14.02.2008).
2. Bogathy, Z, Sulea, C. (coord.) (2008). *Manual de tehnici și abilități academice*. Timișoara: Editura Universității de Vest.
3. Cerghit, I. (2002). *Sisteme de instruire alternativă și complementare. Structuri, stiluri, strategii*. București: Aramis.
4. Manolescu, M. (2004). *Activitatea evaluativă între cogniție și metacogniție*. București: Editura Meteor Press.
5. Meirieu, Ph. (1993). *Apprendre...oui, mais comment*. Paris: E.S.F. Editeur.
6. Neacșu, I. (2006). *Învățarea academică independentă – ghid metodologic*. București: Credis.
7. Negovan, V. (2004). *Autonomia în învățarea academică: fundamente și resurse*. București: Editura Curtea Veche.
8. Northedge, A. (2005). *The Good Study Guide*. Oxford, Glasgow: The open University. (<http://www.guidelinesonlearning.uns.weduau/references.cfm>, accesat în 25. 06.2009).
9. Potolea, D. (1989). „Profesorul și strategiile conducerii învățării”, în vol. *Structuri, strategii și performanțe în învățământ*. coord. Jinga, I., Vlăsceanu, L. București: Editura Academiei.
10. Zlate, M. (1978). *Empiric și științific în învățare*. București: Editura Didactică și Pedagogică.

## RESEARCH LABORATORY

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### COMMUNICATION SKILLS IN EARLY CHILDHOOD: AN EMPIRICAL COMPARTIVE APPROCH

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#### 1. Introductive considerations

In the first years of life, communication, understood as a fundamental aspect of the adaptation, the equilibrium factor, with an important forming potential, is widely realized through non-verbal communication that is through gesticulation, pantomime, position, paralanguage. It is the beginning of a long process of acquirement and improvement of the linguistic code.

Towards the end of the first year of life, the child can syllabify, stand on his/her legs unsupported, imitate simple movements and walk being held by hand. It utters the first words, referring to the objects and the persons around him/her, gives objects when he/she is required verbally or through gesture. The rhythm of growth is intense and the knowledge enlarges especially by virtue of sensorial activity. The perceptive experience is correlated with verbal experience acquirement.

In what concerns the communication development, it can be stated that, at 12 months, the child understands the meaning of multiple words, manifests an obvious polysemy. He/she can utter approximately 100 words with a relative intelligible pronunciation that constitute the syncretic or holophrasic language (words with functions of phrases without grammatical statute) (Șchiopu, Verza, 1981, p. 78). Until the age of three, at the exit from antepreschool years, the child will acquire a number up to 1100 words.

At the age of three, the child knows his/her name, first name and age and can easily identify both the parts of his/her own body (head, legs, ears, nose, neck, fingers, belly, tiptoes etc.), and several objects in keeping with their utility (for example, car,

clothes, dishes, objects from kitchen, toys). He/she can repeat sentences made of 3, 4 and 5 words and the general motric skills are remarkable, in terms of their development.

In the period between 3 and 5/6 years, the expressive (speaking) and the impressive (interior) language develops significantly, the I conscience awakes. The self-affirmation, the organization of a syncretic thinking and the game are very important. The thinking proposes a practical logics and empirical notions, and the language is marked by the „installation” in the contextual speaking. In concrete situations and in the context of practical, objectual actions the child conquers and „recreates” the world. In what concerns the curriculum allocated to this age, it focuses on game, on child’s needs and interests, on applying the interactive methods (*Bowman, Donovan, & Burns, 2001; Coroi, Bolboceanu, Cemortan, Botnari, Cuznețov et al., 2006; Dodge, Colker, Heroman, 2004*)

Starting from a scene/image, at the age of 6/7, he/she can relate coherently and fluently, can elaborate stories with different subjects, based on suitable, successive images. He/she uses a rich grammatical structure: adjectives, adverbs, connectives.

He/She becomes more and more cooperant in the relations with groups of children and with adults, generally, and he/she can respect without any constraint the adult’s indications and demands, as long as he/she can understand them as not being hostile (*Barnett, 1995; Glava, Glava, 2002; Carter Margie and Debbie Curtis, 2007*). His/her tolerance to frustration consolidates between several limits and proves solicitude, tolerance and interpersonal relations (*Gertner, Rice, & Hadley, 1994*).

The phonemic hearing development and the auditory perception improvement, the clear pronunciation of words, the vocabulary enrichment and the acquirement of some grammatical structures to which it is added the development of the communication, of the capacity to dialogize and to compose independently small stories, narrations etc., represent important objectives of the activity with preschoolers, both in kindergarten and beyond it (*Leonard, Camarata, Rowan, & Chapman, 1982; Leonard, Miller, & Gerber, 1999; Cambel, Pungello, Miller-Johnson and Burchinal, Ramey, 2001*). An activity developed by all persons interested in the child’s progress and success: parents, educator and other close persons.

Conversations, auditions, competitions, games of different types, learning songs and poems are educational means frequently used. Thus, the knowledge about the outward things is assimilated, skills are formed, capacities, attitudes are cultivated.

The specialized literature insists on programs of differentiate and personalized trainings, on activities of compensation for some shortcomings, of recuperation and correction of the most frequent mistakes, on early intervention (*Shonkoff., Meisels, 2000*). Thus, the stimulation through adequate means, of the maximal development of the psycho-individual potential can be realized.

The individual activities, the differentiate programs and the activities with small groups of children that have relatively the same needs, problems, abilities and interests, are integrated in the educational field with big resources and effects on long term (*Barnett, 1995*).

The child's development, in this period is the result of these individual activities, on one hand, and, on the other hand, of some social activities developed within the group of preschoolers where he/she is situated. We underline, thus, in this context the importance of social constructivism (Vygotski), which emphasizes the importance and the role of interaction in learning.

Also, in tight connection with individualization, we mention the theory of multiple intelligences, developed by Gardner. The stimulation of each child must bear in mind a certain type of intelligence which seems better developed than the others that is emphasized much better. The help, given by the interested and implied persons (educators, parents, grandparents, psychologists, speech therapists, doctors etc.) adapts to each particular case (Maciuc, 1989; 1990; 2000).

The psychomotric education, the social and the affective one are, in the same time, directions of school-family-local educative community common action (see also Ștefan, 2004).

Essentially, it takes place:

The language and communication development: the development of listening and understanding capacity (receptive communication); the development of speaking and communicating capacity (expressive communication) (Slama Cazacu, 1957-1999).

## **2. An experimental program**

The program, which we propose and which we have partially experimented tries to stress the small age children's potential concerning:

*The independent exposure technique;*

*The dialogue.*

We supposed that if we give an early and systematic character to the interventions, in the two plans previously defined and if we also act in collaboration with the speech therapist, parents, psychologist, implying according to the possibilities a significant number of puppeteers and/or parents, grandparents, persons of letters, we will accelerate the acquisition of primary skills, the development of language and communication, as well as the development of reading and writing premises.

The investigation sample comprised a number of 110 preschoolers of upper preschool group: 55 formed the experimental group and 55 the witness group (of control).

The ameliorative-experimental stage comprised two directions of correlated action:

The assurance of the learning balance of inter(active), operational-creative type, in the learning activities developed with preschoolers;

The introduction of some exercises and activities systems, developed separately in the beginning (the sensitization phase) and then, in coherent systems and stages distinctly spread out, from simple to complex.

We present hereinafter the activities system experimentally introduced (the utilized exercises-game system), according to their evolution:

- identification and analysis exercises ("Guess what it is?" type)

- definition exercises (“Say everything you know about...”)
- description exercises (“Say what the painter did”, “the favorite animal...”)
- association and comparison exercises (“Search the match...”)
- classification exercises (“Choose the images...”)
- seriation exercises (“which one misses...”)
- synthesis exercises (“who makes more stories/poems...”)
- evaluation exercises (“what it is not good...”, “the jokes game”),
- planning exercises(What would you like to do...) (see Maciuc and coop., 1988-1989 and 2008-2009).

For the independent exposure technique, narration activities were developed: 1) on the basis of a single image; 2) on the basis of ordered images by the experimentalist; 3) on the basis of mixed images; 4) on a given theme; 5) on an elective theme; 6) using a learned algorithm.

The children belonging to the experimental group were gradually accustomed to use the means which facilitates the communication: expression of an idea or of a feeling through a picture, speaking to a phone, using the magazines for children, the books with photos, the comics, the postings (posters), recording some messages, expression through gestures, songs, *Internet*. The experimental conditions included speaking in front of a mirror, for controlling the gestures and recording some representations, followed by auditions and evaluations/auto evaluations.

Table no.1 Independent exposure

Subjects category	Stages	Evaluator	Performance											
			Phonetic aspects		The presence of grammatical form specific to the adult's language		The adequate use of the semantic content		The ideas organization (logical unit)		Personal note creativity		N.V.B.* able to potentiate the message	
			Points number	The perf. average	Points number	The perf average	Points number	The perf average	Points number	The perf. average	Points number	The perf. average	Points number.	The perf. average
Experimenta group (1988-1989)	T1	Exp.I	215	3.9	190	3.45	205	3.72	198	3.6	89	1.61	103	1.87
		Neutral pers.	213	3.87	188	3.41	210	3.81	197	3.58	93	1.69	100	1.81
	T2	Exp.I	244	4.43	237	4.3	259	4.70	268	4.87	145	2.63	235	4.27

			Neutral pers.	249	4.52	240	4.36	261	4.74	270	4.9	162	2.94	236	4.29
Experimental group (2007-2008)	T1	Exp.II	212	3.85	201	3.65	208	3.78	201	3.65	100	1.82	68	1.24	
		Neutral pers.	208	3.78	195	3.55	209	3.80	203	3.69	101	1.84	95	1.73	
	T2	Exp.II	244	4.44	218	3.96	217	3.95	235	4.27	160	2.91	157	2.85	
		Neutral pers.	239	4.35	220	4.00	210	3.82	241	4.38	167	3.04	148	2.69	
Witness/controlling group (1988-1989)	T1	Exp.I	217	3.94	201	3.65	199	3.61	199	3.61	94	1.70	99	1.8	
		Neutral pers.	214	3.89	191	3.47	207	3.76	201	3.65	90	1.63	101	1.83	
	T2	Exp.I	239	4.34	227	4.12	230	4.18	215	3.90	101	1.83	115	2.09	
		Neutral pers.	241	4.38	225	4.09	224	4.07	208	3.78	98	1.78	117	2.12	
Witness/controlling group (2007-2008)	T1	Exp.II	210	3.82	190	3.45	198	3.60	196	3.56	95	1.73	105	1.91	
		Neutral pers.	215	3.91	197	3.58	196	3.56	198	3.60	99	1.80	103	1.87	

	T2	Exp.II	230	4.18	210	3.82	200	3.64	199	3.62	138	2.51	132	2.40
		Neutral pers.	220	4.00	215	3.91	199	3.62	197	3.58	137	2.49	139	2.53

\*N.V.B. = non-verbal behavior

Exp.I= coordinator of the 1988 experiment; Exp.II= coordinator of the 2008 experiment

For evaluating the results obtained in the forming-developing skills of independent exposure and dialogue we used an estimation scale with 5 levels: very well (5p); well (4p); medium (3p); sufficient (2p); insufficient (1p); lack (0 p).

The table presents the results of the research, reported to two different periods (the period 1998-1999, respectively 2007-2008) and within each period, the results are distributed, for each experimentalist or neutral person, on two different temporal moments: the T1 moment, representing the start of the research and the T2 moment, representing the post-experimental stage, after the formative intervention.

For evaluating the results obtained in the forming-developing skills of independent exposure and dialogue, we used an estimation scale with 5 levels: very well (5p); well (4p); medium (3p); sufficient (2p); insufficient (1p); lack (0 p).

We will analyze the results presented in the previous table, making reference to each criterion or indicator analyzed in the preschoolers' language development.

Thus, in what concerns the phonetic aspect, an obvious progress can be observed between the two moments of the experiment, respectively T1 and T1, for both periods in which the experiment took place (1988-1989 and 2007-2008). The preschoolers improved, due to the formative intervention that took place, the possibilities of pronunciation, of articulation, they developed the phonematic hearing. In this context, due to the systematic observations, it could be remarked a deficiency reduction of the preschoolers' articulation: inversions, omissions, phonemes substitutions. Due to the stimulation of the phono-articulator apparatus and of the phonematic hearing, through numerous and various exercises proposed in the formative activities, both the experimentalist and the neutral person could record a clearer and a more correct pronunciation of the preschoolers. The progress recorded between T1 moment and T1 moment is significant for the two periods, situated at a distance of almost two decades one from another, fact that represents an incontestable proof of the independent variables efficiency introduced within the experiment.

Another indicator analyzed during the research, for the two categories of groups is the one concerning the presence of grammatical forms specific to the adult language. As well as in the case of the previous indicator, in this case also an improvement of the obtained results after applying the test can be remarked. The different variants of the narration, previously mentioned, frequently used determined a

language evolution acceleration, from the morpho-syntactic point of view, a proximity to the one specific to the adult's language. This fact proves, in a particular case, the theory of the "Zone of proximal development", formulated by Vygotski, according to which the evolution can be accelerated through an adequate stimulation, using the adequate means (idea sustained by J. Bruner).

Now that the communication has also in view a semantic component, we have also analyzed the adequate use of the semantic content. The adequacy of this semantic content to the context, to the situation of communication represents one of the basic conditions of the communication act efficiency. Here, the qualitative leap is bigger and more obvious than in the case of the others indicators, the positive results being obtained by putting the preschoolers in numerous and various situations of communication, in the skills practice and correction which this contextual adequacy supposes from the semantic point of view.

The coherence and the logic unity of the expressed ideas knew improvements, this objective being realizable by solving some tasks that demanded realizing narrations, in different variants: based on a single image, based on ordered images by the experimentalist; based on mixed images; on a given theme; on an elective theme; using a learned algorithm. Thus, the preschoolers learned to create a text, respecting the logical and semantic unit, the enchainment of ideas.

Through the utilized means, we also realized the preschoolers' creativity development. The tabular data highlight a considerable qualitative leap, testing, thus, again the existent connection between language and thinking, between language and creativity. Each situation of communication supposes the exploitation and application, respecting the norms, rules, algorithm, the convention which this presupposes, but beside these elements, which can be considered as being objective, the personal, subjective element also interferes gradating, particularizing the respective situation of communication.

An authentic, efficient situation of communication supposes the harmonization of the three forms: verbal, non-verbal, paraverbal. Since the correct exploitation technique of these can be exercised, stimulated we insisted on this aspect, especially on the non-verbal communication, able to potentiate, to gradate the message. And in this case, the progress is significant, noticeable. The preschoolers learned to valorize different non-verbal elements (especially gestures, pantomime, posture), for enforcing, underlining, emphasizing a certain idea, reducing thus the situations in which discrepancies between the semantic component and the ectosemantic component of the message appeared.

Concluding, we can assert that, for each of the two periods, obvious progresses in the experimental group registered for each of the observed indicators, in the case of the technique based on independent exposure.

#### The dialogue technique-results

For dialogue, exercises of speaking to the phone were used (with grandmother/grandfather, mother/father, the elder brother/the younger brother, a colleague/ a female colleague, with Mr. Doctor or Mrs. Educator etc.)

It was also used intensively the opportunity to participate to puppet plays, the puppet play with two puppets used by children, as well as a system of specific activities, selected from the education proposal of the syllabus for preschoolers (for example “Today we ask questions...” “We ask about...experimental chat...”).

Table no. 2: The dialogue technique

Subjects category	Stages	Evaluator	Performance															
			Answer to questions (answers structure)				Observation (correction and/or filling) of the colleagues' answers				Formulating the questions		Adaptation to partner		Capacity to render the dialogue		Using some means able to favor the dialogue, polite phrase, C.N.B.	
			Using intuitive material		Without a concrete support													
Experimental group (1988-1989)	T1	Exp.I	200	3.63	141	2.56	171	3.10	127	2.3	58	1.05	102	1.85	101	1.83		
		Neutral person	199	3.61	137	2.49	170	3.09	121	2.2	63	1.14	105	1.9	98	1.78		
	T2	Exp.I	235	4.27	213	3.87	254	4.61	232	4.21	149	2.70	197	3.58	245	4.45		
		Neutral person	229	4.16	209	3.8	260	4.72	228	4.14	158	2.87	198	3.6	236	4.29		
Experimental group (2007-2008)	T1	Exp.II	198	3.60	139	2.53	201	3.65	168	3.05	93	1.69	115	2.09	209	3.80		
		Neutral person	196	3.56	132	2.40	205	3.73	162	2.95	94	1.71	117	2.13	213	3.87		
	T2	Exp.II	218	3.96	232	4.22	239	4.35	210	3.82	149	2.71	200	3.64	244	4.44		
		Neutral person	218	3.96	230	4.18	235	4.27	215	3.91	141	2.56	199	3.62	239	4.35		

(Witness) Control group (1988-1989)	T1	Exp.I	197	3.58	139	2.52	172	3.12	128	2.32	61	1.10	103	1.87	98	1.78
		Neutral person	201	3.65	138	2.5	169	3.07	123	2.23	59	1.07	99	1.8	103	1.87
	T2	Exp.I	203	3.69	157	2.85	201	3.65	180	3.27	93	1.69	118	2.14	114	2.07
		Neutral person	199	3.61	148	2.69	198	3.6	177	3.21	91	1.65	117	2.12	116	3.10
Witness/ control group (2007-2008)or)	T1	Exp.II	196	3.56	141	2.56	197	3.58	162	2.95	102	1.85	114	2.07	199	3.62
		Neutral person	190	3.45	138	2.51	196	3.56	160	2.91	105	1.91	116	2.11	197	3.58
	T2	Exp.II	210	3.82	196	3.56	200	3.64	188	3.42	137	2.49	105	1.91	210	3.82
		Neutral person	203	3.69	198	3.60	198	3.60	191	3.47	138	2.51	104	1.89	215	3.91

In the case of the first observed indicator, the **answer structure**, we could record a significant growth of the results. The preschoolers developed the possibility of formulating a correct, adequate answer through an adequate reference to the presented questions. An efficient communication is the one in which the partners code and decode correctly the message, in which the interlocutors' repertoires have a considerable common area where they use a common language. This represents a guarantee of an authentic dialogue, where the questions formulated by the transmitter benefit of relevant answers from the receiver.

Within the experiment we also observed the development of the **intercommunication** capacity, stimulating the preschoolers' possibility to interfere in a situation of communication, to correct, to fill in, and to restate the colleagues' answers. The tabular data also indicate in this case a performance growth of the experimental group.

The correctness of **answers formulation** represents one of the basic conditions of an efficient communication. A correct formulated and correct addressed question demands a corresponding answer. In the case of preschoolers we observed this indicator in two variants, hypostases: the one in which they were offered concrete-intuitive material and the one in which they didn't have concrete support. Although the obtained results also signalized a performance growth for the second mentioned variant, however, comparative to the first one, the progress is smaller. This fact can be explained through the characteristics imposed by the evolution of concrete-intuitive preschoolers' thinking, dependent to what they can perceive on sensorial channel. In the same time, however, we can explain the progress registered in the case of various questions without intuitive support, by accelerating the psychogenesis, due to an adequate stimulation.

**The possibility of adaptation to partner** can be also educated, formed, exercised, fact proved also by the progress recorded by the experimental group subjects, which were submitted to the formative intervention, respectively to a sequence of ameliorative activities.

Another two indicators observed **the capacity to render the dialogue and to use the means able to favor the dialogue, the polite phrase, and the nonverbal elements**. And these two aspects could be improved, through a program of activities, in which the capacities previously mentioned were exercised. The situations of multiple and diversified communication, offer the possibility of forming and stabilizing some acquisitions, an aspect observed at the experimental group.

And in what concerns the dialogue technique, the results prove the validity of the formulated hypotheses.

### 3. Conclusions

At the beginning of the research intercession, the preschoolers manifested a state of conformism, of cognitive limitation, in the sense of the impossibility to detach the models, but during the experimental program, after the continuous evaluation, these proved mental actions of hierarchical or network restructuration and reorganization, much more flexible, more gradated in finding and expressing the meanings.

The way in which preschoolers succeeded, after the experimental undertaking, in organizing the ideas, in giving a personal, creative note to the independent exposure and/or to dialogue, the way in which different pictures and works were conceived (see table 1 and 2) emphasizes the progress registered by the subjects in the experimental groups (significant growth of the performances average, as it resulted after the experimentalist's and neutral person's appreciations) in the two stages: the beginning

of the experiment (T1) and its finality (T2), but also a relative stability of the preschoolers' communication skills in two periods of time: 1988 and 2007/2008.

Corroborating the own observations with the data resulting from our investigation, we observed that the educative influence had positive results in what concerns the skills of correct oral expression, of independent exposure, of a well-structured answer organization, of dialogic speaking, of answering to the cognitive solicitations, of respecting the rules in communication, of dialoguing within a group, of respecting the indications verbally communicated, of observing the structure of a sentence, of a word etc.

The realized systematic observations highlighted the necessity of using both the oral language and some auxiliary didactic materials (boards/cards with written texts, visual and auditory images) by the educator, for an optimal evolution of the didactic activities. Thus it can be facilitated the optimal reception and the understanding of the transmitted messages.

At present, due to the facilities offered by the new technologies of information and communication, through technique means, the access of the parents, grandparents or other interested persons to a set of materials is mediated, these auxiliaries being able to accelerate the rhythm of creating the preschoolers' communication capacity.

Without having the aspiration of covering an ample enough problematic field, our study analyzes without contrasting, a double image- the one of developing the language and the communication at a distance of 20 years- emphasizes the essence identity of the linguistic skills in the two considered periods of time.

We appreciate as a result of our investigation and of the acquired experience, that all the persons implied in the educational programs dedicated to this age (educator, parents, grandparents, speech therapists, doctors, psychologists, maternal assistants, social educators) must bear in mind the satisfaction of the children's necessities to communicate, the stimulation of linguistic skills, the formation of communicative competence. In the contemporary society, the formation of communicative competence must be an early, systematic, permanent preoccupation of the educator.

## REFERENCES

1. Barnett, W. S., (1995), Long-term effects of early childhood programs on cognitive and school outcomes, *The Future of Children*, 5(3), 25-50
2. Bowman, B., Donovan, S., & Burns, S. (Eds.), (2001), *Eager to Learn: Educating our Preschoolers*. Washington, DC, National Academy Press
3. Cambel, F.A., Pungello, E.P., Miller-Johnson, S. And Burchinal M., Ramey, C.T., (2001), The Development of Cognitive and Academic Abilities: Growth Curves From an Early Childhood Educational Experiment, *Developmental Psychology*, vol.37, nr. 2  
<http://people.stfx.ca/x2004/x2004cbj/Year%203/Developmental%20260/Articles%20for%20260%20Paper/The%20Development%20of%20Cognitive%20and%20Academic%20Abilities.pdf>

4. Carter Margie and Debbie Curtis, (2007), *Reflecting Children's Lives: A Handbook for Planning Child-Centered Curriculum*. Redleaf Press
5. Cazacu Slama T, (1959), *Limbaș și context*,.: Editura Științifică
6. Cazacu Slama, T., (1961), *Dialogul la copii*,. Editura Academiei, București
7. Cazacu Slama,T., (1957), *Relațiile dintre gândire și limbaj în ontogeneză*, Editura Academiei, București
8. Cazacu Slama,T., (1999), *Psiholingvistica, o știință a comunicării*, București, Editura ALL
9. Coroi, E., (coord.), Bolboceanu, A., (coord.), Cemortan, S., (coord.), Botnari, V. (coord.), Cuznețov, L. et al., (2006), *Curriculumul educației copiilor de vârstă timpurie și preșcolară (1-7 ani) în Republica Moldova*, Chișinău.
10. Dodge, T.D, Colker, L. J., Heroman, C., (2004), *the Creative Curriculum for Preschool*, 4th Edition, Teaching Strategies Inc., Washington DC
11. Gardner, Howard, *Multiple Intelligences: The theory in practice*, New-York,
12. Gertner, B., Rice, M., & Hadley, P., (1994), *The influence of communicative competence on Journal of Speech and Hearing Research*, 37
13. Glava, A., Glava, C., (2002), *Introducere în pedagogia preșcolară*, Editura Dacia, Cluj-Napoca
14. Leonard, L., Camarata, S., Rowan, L., & Chapman, K., (1982), *The communicative functions of lexical usage by language impaired children*. *Applied Psycholinguistics*, 3,
15. Leonard, L., Miller, C., & Gerber, E., (1999), *Grammatical morphology and the lexicon in children with specific language impairment*. *Journal of Speech, Language, and Hearing Research*, 42,
16. Maciuc, I, (1998), *Formarea formatorilor. Modele alternative și programe modulare*, EDP, București
17. Maciuc, I., Albu, C., Stanica, C., (1990), *Maturizarea socio-afectivă și integrarea școlară*, în „*Revista de pedagogie*”, nr.1/1990
18. Maciuc, I. Neatu, L., (1989), *Optimizarea procesului de formare a deprinderilor de activitate intelectuală în grădinița*, în „*Revista de pedagogie*”, nr.4/1989
19. Maciuc, I., (2008), *Continuing education for early childhood teachers: an interdisciplinary study of teacher change*. <http://upet.ro/pdf/simpro2008/Domeniul%2015+16.pdf#page=39>
20. Maciuc, I., (2009), *Pedagogia diferențiată pe vârste*, vol. I, *Copilul înainte de intrarea în școală*, Editura Sitech, Craiova
21. Maciuc, I., (2000), *Elemente de psihopedagogie diferențială*, EDP, București
22. Shonkoff, J.P., Meisels, S.J.(eds.), (2000), *Handbook of Early Childhood Intervention*, University Press, Cambridge
23. Ștefan, M.A., (2004), *Stadialitatea psiho-dinamică (de vârstă) și adaptarea educației*, în „*Studii de pedagogie diferențiată*” (coord. I. Maciuc), Editura Sitech, Craiova, pp.44-63
24. Șchiopu, U., Verza, E., (1981), *Psihologia vârstelor*, Editura Didactică și Pedagogică, București

## **THE BEGINNING OF A CAREER. REQUIREMENTS AND EXPECTATIONS OF EMPLOYERS AND EMPLOYEES.**

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### ***Abstract***

*The quality of an educational system is reflected in the school performance of educational actors (students), as well as in their adequate professional integration. This practical dimension of the education process has determined the necessity of the creation of career counseling and orientation services, through which pupils and students benefit from a congruent approach regarding personality – studies – in choosing a profession.*

*Quality is assured by the different perspective of information, which overtakes the theoretical level of traditional education and reaches a useful, practical aspect: What is the job market like? What does an employer expect from a fresh graduate? How do we quickly obtain correct information regarding job offers? In the polytechnic university environment the field of counseling is in a beginning stage and tries a consolidation of its statute through various promotion and correct information actions aimed at students about the purpose and importance of this type of counseling.*

*The student today, the engineer of tomorrow needs very exact information regarding the work market, a fact which cannot only be realized through personal resources but also through requesting career counseling services. In turn, these services prove their quality and utility through external information (available jobs, expectations of employers, etc) as well as internal information (what students want, how well they know themselves personally and professionally: interests, aptitudes, values, etc).*

*The pertinence of this information is provided by the research realized in the two levels.*

*The present paper presents the concordance between the expectations of students and those of the employers towards the necessary competencies needed to be employed.*

**Key concepts:** *employer, student, work market, competences, professional selection*

## **I. The current context of the labor market**

The worldwide economical changes impact the labor market in Europe, firstly by the growth of the unemployment rate amongst young people that register values between 15,9-21%. European policies (*The Amsterdam Treaty 1997*), *the European Strategy for Labor Occupation and the Lisabona Strategy 2000*, *The Memorandum concerning Continuous Education 2001*) aim to lower the unemployment rate by developing a functional economy, to give everyone access to education through efficient systems of career counseling and orientation and through developing the necessary abilities in young graduates that allow them to be properly employed.

The dynamic of the labor market, the obsolete state of certain professions and the birth of new ones, the current economic conditions, justify the utility of the career counseling and orientation services, through the need for involvement and construction of an individual's profession needing support in understanding the way the labor market works and through identifying the opportunities offered by it.

The labor market represents „the context in which the job offer and request interact in a dynamic way” (Szilagyi, 2008).

The specific concepts of the labor market, that determine its importance in the process of career counseling are: work, occupation, craft, profession, specialization, employer, employee, etc.

### **I.1. Looking for a job**

Fresh graduates enter the labor market with a series of expectancies, some of them being realistic, pertinent, while others are simple illusions.

In their turn, employers establish certain requirements and have various expectancies from their employees, depending on which some employees remain while others are promoted, while others leave the company.

The labor market is constantly changing and young people must explore it to find an appropriate job. Fresh graduates need to identify those jobs that are adapted to the current context of the labor market and which are compatible at the same time with their aptitudes, competences, abilities and values.

The integration of young people into a profession is realized gradually through the influence of various factors: family, school, mass-media, professional aspirations of the young person, etc.

While looking for a job, the fresh graduate must be correctly informed regarding: labor law, the rapport between their own competencies and the requirements of the employer, the proper way to draft up a C.V and a letter of intention.

The ones that are looking for a job are: students, fresh graduates (high school, university), people who are looking for another job, the unemployed.

### **I. 2. Applying for a job**

The necessary documents a young or any type of person needs to apply to a job are: a curriculum vitae and a letter of intention.

The aim of these documents is to promote and captivate the interest of the employer in regards to the qualifications and competences of the solicitant. If the documents are considered relevant for the one doing the recruiting, they are selected and the candidate is called for an interview.

When the young person has found certain companies that have interesting job offers from his point of view, the stage of applying with a CV follows. This process requires time, the maximum for finding an adequate job being 2-3 months. A planning of this exploring activity is suggested through keeping a clear file of the already sent applications, which can include the following elements: date of application, the company it was addressed to, the contact person, the type of application (online, by phone, by e-mail, etc) and the final results of the application process.

### **1.3. The employer**

The essence of the professional selection activity is realized efficiently when two categories of information is compared: the number and the request of vacant jobs and the qualities of the ones looking for work.

In the professional selection process the *work capacity expertise*, is concerned, it being represented by identifying the accordance between the individual and the profession, more precisely, between the physical and the psycho-social potential of the individual and the professional requests.

The basic criteria in the selection process (apud. Jigău, 2001) are:

- accredited degrees – diplomas;
- experience and seniority;
- the previous function;
- qualities, knowledge, abilities, skills and behaviors.

## **II. Research – results, interpretations, commentaries**

### **1. Purpose, objective**

The impact of the career counseling and orientation services in the higher technical education system.

#### **Objective**

To identify the differences that exist between the requirements of employers and those of students, at the moment of employment.

### **2. Research hypothesis**

Specific hypothesis:

We estimate that the professional requirements of employers meet to an average degree the average professional requirements of students.

### **3. Research variables:**

Depending on the characteristics of the sample, the following *independent variables* have been selected:

Educational environment factors – the percentage of fourth year students

Individual characteristics – sex.

*Dependent variables:*

The professional requirements of employers and students

#### **4. Sampling**

##### **Concerned population / target groups**

The action research was undergone in Bucharest at the Politehnica University and at several job fairs in 2010-2011.

1. Fourth year students represent the target group and the most important one for the career counselor since it signifies the passing from being a student to being part of the labor market.

We have chosen final year students to see the degree of difficulty they meet in finding a job, as a consequence of the differences between their and employers' expectancies.

2. The employer is represented by companies activating in the Engineering Industry, which were present at several job fairs and which presented their job offers. We have chosen renowned companies in the field, since they represent an important group where most Politehnica graduates apply to and then work in.

##### **Samples**

The research targeted the following independent samples:

##### **For target group 1: Final year students**

Students in the fourth (final) year – the total population in the Politehnica University is 2779 students.

Consequently, for a level of trust of 95% and a margin of error of 3%, **the representative sample was formed of 771 final year students.**

We have used random, multistage, stratified sampling.

Multistage sampling: the first phase in which the sampling unit was represented by the university, the second stage in which the sampling unit was the faculty.

Stratified sampling: sampling criteria – the sex of participants.

#### **1. Distribution of final year students within the sample, by their faculty:**

<b>Faculty</b>	<b>Total no. of students</b>	<b>Percentage of the sample</b>	<b>Number of surveyed students</b>
Engineering and Management of Technological Systems	322	<b>11,59</b>	89
Energetic Engineering	322	<b>11,59</b>	89
Industrial Chemistry	158	<b>5,69</b>	44
Transportation Engineering	328	<b>11,80</b>	91
Electronics	448	<b>16,12</b>	124
Automatics	476	<b>17,13</b>	132

Mechanical Engineering	160	<b>5,76</b>	44
Electrical Engineering	179	<b>6,44</b>	50
Biotechnical Systems Engineering	96	<b>3,45</b>	27
Aerospace Engineering	97	<b>3,49</b>	27
Material Science and Engineering	136	<b>4,89</b>	38
Applied Sciences	57	<b>2,05</b>	16

## 2. Distribution of final year students within the sample, by sex:

Boys	Faculty	Girls
8%	Engineering and Management of Technological Systems	4%
8%	Energetic Engineering	4%
4%	Industrial Chemistry	2%
11%	Transportation Engineering	1%
11%	Electronics	5%
11%	Automatics	6%
5%	Mechanical Engineering	1%
4%	Electrical Engineering	2%
2%	Biotechnical Systems Engineering	1%
2%	Aerospace Engineering	1%
3%	Material Science and Engineering	2%
1%	Applied Sciences	1%

Target group 2: The employer

At present there is a high number of Engineering companies on the market.

We have considered a representative sample of 50 profile companies, the research being undergone at two job fairs in Bucharest in October 2010 and April 2011.

## 3. Distribution of employers within the sample, by the function of the respondent within the HR Department of the Engineering company

No.	Function	Percentage
1.	HR Generalist	30%
2.	HR Assistant	20%
3.	HR Manager	40%
4.	Others	10%

One can observe that the companies at job fairs were to a high degree represented by the managers of the human resources department – 40%, followed by HR generalists and HR assistants. These percentages mean that these were professionals with seniority in the HR field, that know the specifics of the company they represent, a fact which gives increased credibility to our research which regarding the requirements of employers in Engineering companies.

## 5. The methods and instruments used

**Document analysis**, that meant consulting specific documents of the Career Counseling and Orientation Center at the Politehnica University of Bucharest. According to these documents, we find out that the Politehnica University of Bucharest, a higher education institution with a long tradition in the technical field, offers students since 2007 a Career Counseling and Orientation Center, that offers specialized services of assistance and counseling in knowing the educational offer of the university, as well as developing the specific abilities and competences through identifying the most suitable job.

The mission of the center is to offer students and graduates, assistance and counseling services both for knowing the education offer of the Politehnica University, as well as for knowing one's own abilities and professional interests, in order to properly choose a career in accordance with one's psychological profile, chosen studies, profession exigencies and existing jobs.

The Career Counseling and Orientation Center (C.O.C.C.) of Politehnica University of Bucharest runs the following activities:

- it offers evaluations of individual aptitudes and capacities of students and graduates;
- it informs them on getting professional or competency-based certifications in regards to continuous professional training: post-graduate courses, masters degrees, Phd degrees;
- it prepares students and graduates for finding a job, through specialized assistance given in drafting up a C.V., writing up a letter of intention, familiarizing oneself with techniques and conditions for a job interview;
- it disposes of a database of job and scholarship fairs, available for students and graduates.

In general, the creation of Career Counseling and Orientation Centers has had lawful support since 1998, when the Ministry of Education issued Order no. 3277, which meant the creation of a department that would inform and council students on choosing a profession in every single higher education institution.

Constituted by Article 11 of Order no. 3235 in 2005 of the Ministry of Education, Career Counseling and Orientation Centers in Universities have the role to support students in taking professional decisions in accordance with their personality profile and their insertion into the labor market. These centers justify their utility in the context of the growth of the entrance rate of students and the decrease of the graduation rate by 40% (apud. Dima, 2009).

## The Survey-based research

In order to identify the existing differences between the expectancies of employers and those of students, at their first job, we have used the survey as a research instrument which allowed us to rapidly gather up information, and to extrapolate the results obtained on a sample, to the whole of the population (with a certain error margin), allowing us to obtain a certain „profile”.

The survey is realized „through a scientific modality of investigation, sometimes being the only one available, of the subjective universe of social life – opinions, attitudes, beliefs, knowledge, interests, a.o. on an individual and collective level” (Zamfir, Vlăsceanu, 1993).

The results obtained in processing the survey represent the assumptions for the next step, which is creating a counseling plan through which the student can improve his competences and model his attitude in accordance with the expectancies of the employer.

## The structure of the instrument used

The survey was adapted from a survey used by AchieveGlobal in the research „*The expectancies of the employer vs. The expectancies of the student*”.

The items of the survey were the same both for students, and for the Human Resources specialists, these items being divided into two subcategories.

The first subcategory *12 items*, refers to the competences that the employer considers desirable vs. Competences that the students believe that the employer considers desirable.

The second subcategory of *11 items*, refers to the requirements that the employer considers desirable vs. the requirements that the student believe the employer finds desirable.

## 6. Results, interpretations, commentaries

O4. To identify the differences that exist between the requirements of the employers and students at their first job

### 1. The competences subcategory

	Competence	Very important		Average importance		Less important	
		Employer	Student	Employer	Student	Employer	Student
1	Mother tongue communication competences	68,8%	68,2%	25%	27,3%	6,3%	0%
2.	Foreign languages communication competences	62,5%	72,7%	37,5%	27,3%	5%	0%
3.	Digital competences	68,8%	72,7%	31,3%	24,2%	0%	0%

4.	Significant knowledge in the reference domain	68,8%	86,4%	25%	9,1%	0%	0%
5.	Research competences	12,5%	27,3%	43,8%	72,7%	43,8%	0%
6.	Customer relation competences	31,3%	45%	50%	55%	18,8%	0%
7.	Conflict dissolution competences	56,3%	31,8%	25%	54,5%	18,8%	9,1%
8.	Organizational competences	37,3%	72,7%	50%	18,2%	6,3%	0%
9.	Teamwork competences	93,8%	72,7%	6,3%	4,5%	0%	4,5%
10.	Competences in adapting to change	87,5%	55%	12,5%	27,3%	0%	18,2%
11.	Entrepreneurial competences	6,3%	22,7%	50%	63,6%	43,8%	4,5%
12.	Creativity, Innovation	56,3%	72,7%	43,8%	22,7%	0%	0%

The first sub-category refers to competences that the employer considers desirable, respectively competences that the student thinks the employer finds as desirable.

Concerning the communication competences in the mother tongue and in foreign languages, we can observe a high degree of concordance between the expectancies of employers and those of students.

The same concordance can be seen in regards to digital competences, the values being close on both sides. This thing can be justified through the intense informing both on the level of formal education, as well as on the non-formal and informal levels which is connected to the need for knowing how to use a computer and for knowing at least one foreign language for every person that wants to be employed.

Knowledge in the reference domain are appreciated as being more important to students (86,4% consider it very important and 25% give them an average importance) compared to employers that offer them slightly smaller values (68,8% very important and 9,1% average importance).

Research competences indicate a significant difference of perception and expectancies between the employer and the student. While 72,7% of the students give research competencies an average importance, only 43,8% of employers give them the same value.

The expectancies of employers are again close to those of students in regards to competencies for relating with clients, 55% of students and 50% of employers considering it to have an average importance at the workplace.

Differences of perception are found in the case of conflict management competences (if approximately 50% of students consider them as having an average importance, 56% of employers appreciate them as very important) and for organizational competences (72% of students consider them as very important, while 37,3% of employers think the same).

Teamwork is a competency appreciated approximately the same on both ends, slightly bigger values were given to the high importance of this skill, employers (93,8%) and students (72,7%).

Adapting to change is a competency considered as very important by 87,5% of employers, compared to 55% of the investigated students. Students rather consider this skill to be of an average importance (27,3%) or small (18,2%).

Entrepreneurial competences interest the employer a little less (43,8% considering them less important). Both students and employers consider entrepreneurial competency as having an average importance.

Creativity and innovation at the workplace is considered of high importance by students (72,7%), compared to average importance as considered by employers (43,8%). If we correlate this item with the one above, about the research competence, we can observe that engineering companies are interested more in the execution skill than in the aptitude of innovation and creation of new products.

## 2. The expectancies sub-category

	<b>Expectancies</b>	<i>Very important</i>		<i>Average importance</i>		<i>Less important</i>	
		Employer	Student	Employer	Student	Employer	Student
1.	Integration into the organizational culture	88%	59,9%	12%	31,81%	0%	4,54%
2.	Personal Development	88%	55%	12%	36,36%	0%	9,9%
3.	Loyalty to the company	87,5%	55%	11,8%	36,4%	0%	0%
4.	Adapting rapidly to the work environment	62,5%	95,5%	31,3%	0%	0%	0%
5.	Respect of deadlines	62,5%	54,5%	37,5%	36,4%	0%	0%
6.	Assimilation of necessary knowledge in a short time	68,8%	72,7%	31,5%	13,6%	0%	4,5%
7.	Maintaining enthusiasm in time	75%	22,7%	25%	54,5%	0%	13,6%
8.	Initiative at the workplace	87,5%	54,5%	12,5%	40,9%	0%	0%
9.	Will to be promoted	81,3%	54,5%	12,5%	31,8%	0%	0%
10.	Results-oriented	93,8%	54,5%	0%	36,4%	0%	0%
11.	Creative conduct	50%	63,6%	50%	31,8%	0%	0%

The second sub-category refers to expectancies that the employer considers desirable and the expectancies that the student believes that the employers considers as adequate in regards to the act of being employed.

Integration into the organizational culture and Personal Development are considered as very important by the employers (88%). Values are different to those of students which consider Integration into the organizational culture and

Personal development 59,09% respectively 55% as very important and 31,81%, respectively 36,36% of an average importance.

Loyalty to the company is a high expectancy (87,5%) of employers, only half of the surveyed students considering it that way.

Adapting rapidly to the work environment is very important to students that want to get employed (95,5%), while employers grade them slightly less; 62,5% very important and 31,3% average importance.

Respect of deadlines and Assimilation of necessary knowledge in a short time indicate a greater concordance between the expectancies of employers and those of students.

Again, we can observe that the Maintaining enthusiasm in time, as a motivational factor, is correlated with the loyalty to the company as well as the difference in grading these between employers and students.

Significant differences of expectancies can be observed from the point of view of Initiative at the workplace, employers considering it as very important (40,9%) and above average (54,5%).

Big differences are found in the Will to be promoted, 81,3% of employers waiting for students to have it and only 12,5% considering it as being of average importance. Over half of the surveyed students consider this attribute of high importance, while 31,8% of them find it as having an average importance.

Almost equal values to the above-mentioned case can be found in the expectancies regarding a Results-oriented attitude in the workplace.

Again, Creative conduct in the workplace is appreciated similarly by both students and employers.

## Conclusions

The results presented here-in show that the specific hypothesis “We estimate that the professional requirements of employers meet to an average degree the average professional requirements of students” is confirmed.

Regarding the **sub-category of expectancies** itself, we can observe big differences between the expectancies of employers and those of students that are looking for a place to work.

Differences take into account concepts connected to integration into the organizational culture and Personal Development, Loyalty to the company, Initiative at the workplace, Adapting rapidly to the work environment, maintaining enthusiasm in time, Creative conduct, Will to be promoted as well as a Results-oriented attitude.

The professional expectancies of employers correspond with the professional expectancies of students in regards to the Respect of deadlines at the workplace and the assimilation of necessary knowledge and the formation of necessary abilities in a short time.

From the perspective of **competences**, the professional expectancies of employers correspond with the professional expectancies of students in regards to: Mother tongue communication competences, foreign languages communication competences, Digital competences, Customer relation competences and those of Teamwork competences and Entrepreneurial competences.

Nevertheless, we find differences between the employer and the students in the following competences: Research competences, Organizational competences, Conflict dissolution competences, Competences in adapting to change as well as Significant knowledge in the reference domain.

One can observe the degree of concordance from the point of view of competences regarding the expectancies of the employer compared to those of students, this being bigger when the above-mentioned competences are intensely popularizes in schools, mass-media, family, such as: Foreign languages communication competences, digital competences, teamwork and manifesting openness in relating with the client.

Differences of perception appear when aspects that are function of the internal structure of the company and the specific expectancies of it, are mentioned: Organizational, research, adapting to change, appreciation or lack of it concerning solid knowledge in the reference domain.

This difference is decreased after a better knowledge of the specific of engineering companies. A solution would be for CCOC to realize more seminars, conferences in which the expectancies of employers can be presented to their potential future employees found in students. Moreover, the popularizing of internships would be a solution, the encouragement and informing of students by teachers in regards to the profiles of engineering companies. This means that the companies in the field would popularize their offers and work conditions more intensely in the Politehnica University of Bucharest, by developing more active and constant partnerships between the two parts.

#### REFERENCES

1. Dima, A.M. (2009). Rolul centrelor de consiliere și orientare în carieră în dimensiunea socială a procesului Bologna. București: Institutul de Științe ale Educației.
2. Jigău, M. (2001). Consilierea carierei. București: Editura Sigma.
3. Szylagyi, A. (2008). Manualul consultantului în carieră. Iași: Institutul European
4. Zamfir, Vlăsceanu (coord). (1993). Dicționar de sociologie. București: Babel.



**STUDENTS' PERCEPTION-FUTURE TEACHERS  
REGARDING THE ROLE OF PHYSICAL EDUCATION IN  
DEVELOPING A HARMONIOUS PERSONALITY.  
ASCERTAINED STUDY**

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***Abstract***

*The concept of integral education, which should ensure the individual a complete harmonious development under all the sides and dimensions of his personality, is not very recent, having its origins in the Greek Antiquity. Having got a more distinctive form in the conception of the French teacher Rene Hubert, this concept proves to be updated nowadays.*

*The promotion of an integral education represents a necessity of the present learning system, being also mentioned in the Romanian Learning System Law.*

*Irrespective of the forms under which it is achieved (formal, non formal, informal), the environments and the educational institutions involved in achieving the educational act the education needs to envisage the developing of a harmonious, independent creative and self reliant education able to adapt itself to the requests and exigencies of a world and society in a continuous accelerated change, a personality in the developing of which the physical education needs to have an essential physic and esthetic role.*

*We present in this study, the results of a microresearch made among the future teachers students, concerning the role and the implications which the physical education has in developing a harmonious personality. So we insist on the necessity of forming a correct perception regarding the role of the physical education and sports have, in forming some correct abilities for a equilibrated life, a healthy lifestyle, in which movement has an essential component.*

***Key concepts:*** *physical education, integral development, harmonious personality*

## **Introduction**

Physical education represents a basically dimension of forming and developing the individual's personality, contributing in an essential way to the accomplishment of the educational ideal. It is that specific dimension which deals with the physical development of the body, and which makes a good foundation for a good psychic development.

The main means of accomplishing the physical education are the teaching process and the extracurricular activities.

There are two categories of means of accomplishing physical education (Nicola, 2000; Maciuc, 2007):

a. forms organized within the school system: classes of physical education, school sports clubs and organizations, organized breaks (for younger students), contests, competitions, cross-country races, trips and backpacking etc.;

b. the independent physical education of the students, done individually or in group.

Practicing physical activities and/or sports can also be achieved within some sport clubs and sport organizations, in an organized framework, with specialized people.

Irrespective of the means of doing different sports, practicing physical exercises and sports in general, are absolutely necessary for children, in order to obtain a harmonious development of the body and to provide and maintain a healthy life.

Physical activities and sports mean to provide and maintain a healthy body, to develop psychomotor abilities, physical and moral qualities. Lately, physical education is less highlighted and practiced, laying special stress on other fields of children and youngsters' development. In a society of computers and of high technology which emphasizes more the mental activity and effort, limiting the movement and physical effort, it is obvious that physical education is neglected, even if it is an important part of integral education.

## **Procedures**

In order to know our future teachers students attitude towards the role and importance physical education has in forming harmonious personalities(along with other dimensions of education) we conducted a research of observant nature. The sample of subjects consisted of 100 students-future teachers from several representative faculties at the University of Craiova (others than the Physical Education and Sport): Faculty of Letters (58% of all subjects investigated), Chemistry (15%), and Mathematics (27%).Research methods used were based on questionnaires, surveys and group focus, and the research tools used were the opinion questionnaire(which included nine items) and a group focus questionnaire. The objectives of this micro research were:

- becoming aware of students' own opinions about the weight and importance of physical education has in the formation of a harmonious personality as compared to other educational dimensions.
- knowing the benefits of promoting physical education in school
- identifying negative consequences that, as students think, can occur when physical education is not promoted adequately.
- inventory of different means of helping people become aware of physical education in schools.

Student responses to the questionnaire applied within the focus group were consolidated, then analyzed and interpreted.

### Outcome

The review questionnaire applied to the students included nine questions, some with answers of their choice, others with open answers. On the whole I sought knowing students opinion about how physical education is seen in the Romanian society and the Romanian school and education.

Compared to other classical dimensions of education, physical education deals (according to the students that have been investigated) an important role. This item appears in the first survey (ranked by their role in forming harmonious personalities the following dimensions of education, 1-the most, 5-the least) :a)aesthetic education, b)intellectual education, c)physical education, d)moral education, e)vocational education. With regard to physical education, a large proportion of students (eg 49%) felt that it is ranked2, as intellectual education, while 36% ranked it number 3, after the intellectual and moral education.

82% of surveyed students believed that physical education should have an important role in training young, only 1% consider that this role is small. The rest of those questioned could not give an answer to the second question o the questionnaire or have considered that the role of physical education in the formation of personality is invalid. The responses of subjects can be traced and investigated in the following chart:

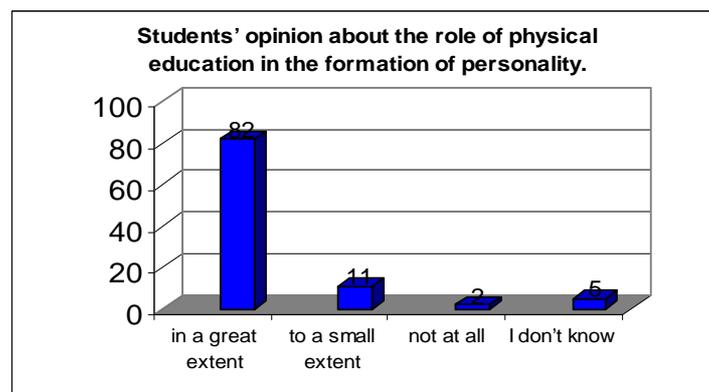


Chart 1. Students' opinion about the role of physical education in the formation of personality

At question number three (do you consider that the present Romanian education promotes a harmonious physical development for youngsters) students' answers revealed to a large extent that the present Romanian education does not promote it and furthermore it does not give much importance physical education. The distribution of students' answers is represented in the chart below:

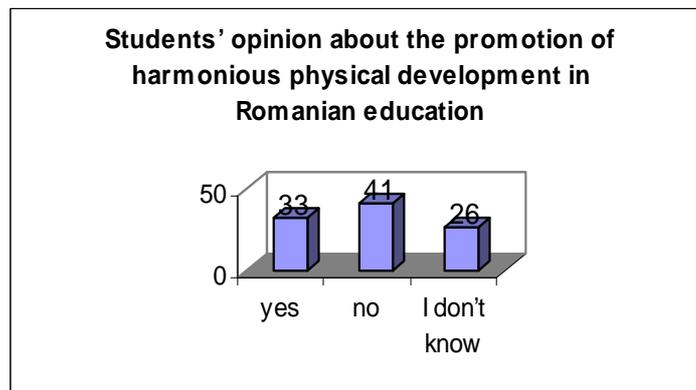


Chart number2. Students' opinion about the promotion of harmonious physical development in Romanian education

Instead, the question regarding the extent in which Romanian society values the importance of physical education (question 4) showed that fewer students (37%) believe that it is done to a large extent.

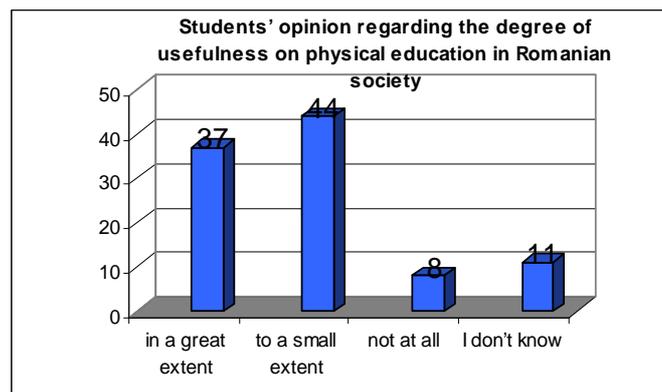


Chart number3. Students' opinion regarding the degree of usefulness on physical education in Romanian society

Among the categories of activities that must be more prevalent in physical education, those that take place at school are valued almost at the same level with the extracurricular ones, as it can be seen in the chart below.

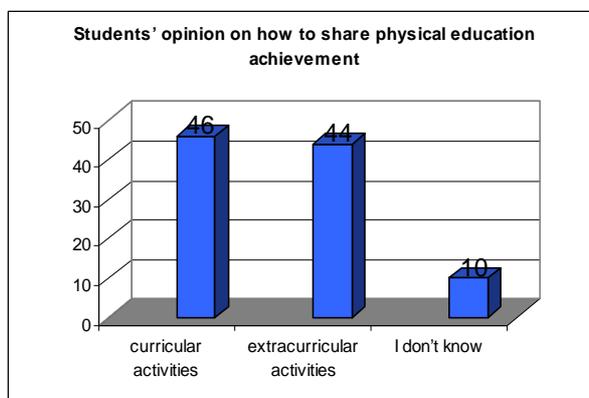


Chart number 4. Students' opinion on how to share physical education achievement

Item no.6 asked students to show to present at least three ways in which they, as teachers can encourage student involvement in physical education and sports activities. Among the methods most frequently mentioned by students were: the organization of competitions, sports competitions, hikes, excursions, thematic camping.

Students-prospective teachers were required to have at least three arguments to support the need to promote physical education in school. Among the arguments presented, we present the smooth body development, maintaining health, formation of positive character traits, encouraging cooperation and collaboration, developing team spirit.

Among the consequences of insufficient promotion of physical education in school, applied to item No 8, we note: increased risk of disease, increased stress, intellectual fatigue, formation of habits, an unhealthy lifestyle.

The last item of the questionnaire asked the students to present some of the so-called "enemies" of the practice of sports and physical exercise. Therefore the students listed: internet, computer games, TV shows followed in excess, the lack or inadequacy of facilities for conducting sports activities, a mismanagement of time.

The group focus was attended by students of the same universities mentioned above but in smaller numbers. The questions also followed highlighting their opinion about the way in which the physical education is done in schools. It has been insisted especially on highlighting those aspects considered relevant for students, as a practitioner and as a future teacher. Different situations and circumstances have been presented, issue that led to conclusions about the subject under discussion.

## Discussions

The answers provided by the survey reveals that most of them agree to accept the importance of physical education has in the formation of a harmonious personality. The value of this dimension is different if we consider two major areas: the theoretical and the practical. Thus, although theoretically it recognizes the importance of physical

education(part of the educational goal stated in the very formulation of the Romanian school, Education Law), practically this size is not very much encouraged in schools.

According to the students-future teachers, the young are not enough encouraged to shape a healthy lifestyle, the movement, exercise, weight and sport have a special importance. The reasons causing this situation reported by many students are assigned to different categories, from attitudes, habits, material resources, facilities and infrastructure.

According to students-future teachers, the responsibility to organize activities concerning physical education and sports is not only in schools, but instead, they believe that in this respect the extracurricular activities have a more significant share. We note that the answers given by the students highlight an important trend in education today, namely the influence or more rapid and greater role in carrying out the nonformal and informal in education.

From the answers given by the students and discussions, we could have pulled off the idea that this should give warning against the risks of insufficient promotion of the importance of physical education for the health of a nation. A harmonious personality can only be one that has an important physical component. According to the students interviewed, the responsibility to encourage the practice of sports, exercise. Sport should be left to each teacher individually and not limited only to physical education and sports teachers.

## Conclusions

The necessary combination of harmonious development with the intellectual one is not new but, it emerges as a pressing nowadays. For various and complex reasons, sports lose grounds to other activities in a computerized world. The findings produced by us consist in accepting the importance of physical education as a goal from theoretical but in an insufficient implementation of this idea.

Training the trainers should consider this aspect of educating the young prospective teachers and determine changes in the field of educational action. The formation of a correct lifestyle which should not lack in healthy eating, sport, travel. This should be a concern of trainers of trainers.

The development of this micro research revealed weak points, shortcomings, failures.

These aspects can be improved, ameliorated by initiating research projects that involve students-future teachers, but also teachers who are already employed in education.

## REFERENCES

1. \*\*\*Legea Învățământului, nr. 84 din 24 iulie 1995
2. Macavei, E. (2001). *Pedagogie. Teoria educația*. București: Editura Aramis
3. Maciuc, I. (2007). *Clasic și modern în pedagogia actuală. Tratat*. Craiova: Editura Sitech
4. Nicola, I. (2000). *Tratat de pedagogie școlară*, ediția a doua, revizuită. București: Editura Aramis

## BOOKS, IDEAS, INTERVIEWS

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### PEDAGOGY FOR FUTURE TEACHERS. THEORETICAL SYNTHESSES. TASKS, MODELS, APPLICATION INSTRUMENTS

Senior Lecturer Ph.D. Student Ecaterina  
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TSTD - University of Craiova

Book Review: Mogonea Florentin Remus – Pedagogy for future teachers. Theoretical syntheses. Tasks, models, application instruments, Universitaria Press, Craiova, 2008

Conceived as an operational instrument – in order to support training and self-training activities, the book “Pedagogy for future teachers. Theoretical syntheses. Tasks, models, application instruments”, suggests a wide range of issues and theoretical actions, accompanied by applications based on the theoretical dimension, for the discipline of Pedagogy (with its four models: *The fundamentals of pedagogy*, *The theory and methodology of curriculum*, *The theory and methodology of training*, *The theory and methodology of evaluation*).

The book is intended first of all for students who attend the psychopedagogic training module with respect to the initial training of students for the didactic professionalization, through the educational programs suggested by the Teaching Staff Training Department. But, at the same time, the theoretical contents and evaluation and self-evaluation items can be regarded as invitations for all those interested in the study of Pedagogy (pupils, specialized professors, professors enrolled in continuous training educational modules or educational modules designed for specialization).

Also, the book suggests the necessity for the theoretical and especially practical correlation between the pedagogy and all other disciplines included within the initial teacher training program with important pioneering research in the educational practice and the scientific and efficient way of conceiving, carrying out and evaluating different activities.

The operational character of this curricular auxiliary is pointed out by the chapters' identical algorithmic structure, within the didactical presentation of the suggested topics (learning units, chapters):

- Goals/aimed skills;
- Terms/key syntagms;
- Theoretical elements;
- Evaluation and self-evaluation items, after each sequence of theoretical elements;
- Compulsory and recommended bibliography for the thorough study.

The suggested theoretical framework is characterized by accessibility, being conceived in a synthetic manner, in order to offer readers the possibility for the thorough analysis of topics through reading, studying, personal inquiries. Some theoretical aspects have been presented by making use of tabular graphs or graphic organizers (conceivable maps, figures, cluster etc.), in order to shed light on the relations between the concepts presented and conveyed here.

The reflection tasks (evaluation and self-evaluation items) have been carried out in order to point out the understanding of contents and to stimulate the active and/or interactive learning. At the same time, they are a great chance for originality to come out in practice, active and interactive reception, critical analysis, reflection, problematization, projection.

The end of each module recommends a rich list of suggestions for the elaboration of papers on Pedagogy topics, which can be included as documents or teaching material within the structure of the final didactic portfolio, while the vast bibliographic information supports differently the development of knowledge interests and the thorough analysis of suggested contents.

The paper offers also a synthetic way of learning of the themes specific to the four modules, after the general initiation through courses and different models of presentation of the theoretical data, for consolidation (tables, graphic representations). Alongside these elements, the paper offers also a great deal of other elements of support for the exercise of intellectual skills that are necessary for mapping out the pedagogic thinking, as practitioner teachers (with respect to the application of theory).

All these considerations determine us to express our belief that the present paper, through its organization/structure and the conceptual clarifications, establishes a real and reflexive communication with the reader, being the launch pad for the construction, deconstruction and reconstruction of learning experiences and at the same time a helpful curricular instrument for both the academic training and the didactical, theoretical and practical professional perfection.

## **ELEMENTS OF EDUCATIONAL LEADERSHIP AND MANAGEMENT**

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Book review: Ilie Vali – Elements of educational leadership and management, Paralela 45 Press, Craiova, 2009

The present paper is addressed to all who are concerned with management and educational leadership issues and represents a landmark in the training and perfecting approach in this area.

Structured on several chapters, the paper highlights the essential aspects of the domain, terms like "management and leadership", "organization", "freedom and authority," "tensional situations" and "communication" being cores of the discussed themes.

Serving as support material for the students who are preparing to embrace the teaching career, the ideas on which the main ideas of the paper are focused on the concepts of management and leadership.

The first chapter – “People inside groups” – opens the horizon of expectations, anticipating the ideas conveyed in the other chapters. The analyze of the group and its specific problems, of the student classroom as an educative group, as also of the relationship between status and role, represent interest points which are developing this thematic unit.

"Management and leadership" are treated in the second chapter as characteristic phenomens of the social life. Starting from the existing conceptual differences and interferences, we considered necessary to establish a parallel between managers and leaders, highlighting the fulfilled functions and the leadership styles, classified according to several criteria. The competency profile is analyzed in detail, with all its corresponding shades and subdivisions, complementing the image which is shaped by the reader in relation to the personality of managers and leaders.

In the chapter "School as an organization", the explicative approach is built on the collo "organizational change", as a consequence to the fact that the

organizational development appeared as a reaction to the changing requirements.

Organizational culture is one of the attraction themes in the domain of organizational sociology. Moreover, we can not talk about school organization without referring to its culture, for which the author has granted a generous space in the chapter "The organizational culture".

Directly related to these phenomena, the author has approached in the next chapter the issue of "school discipline, from the perspective of the freedom-authority report". The author believes that the freedom in education is a necessary condition, but it does not exclude the presence of the already won authority, based on competence.

The last chapter of the paper deals with "The Management of Communication", assimilated as an important part of the general management. The quality of interpersonal relations is given by the quality of communication between those involved, and the management of conflicts which appeared inside the organization/group may be realized efficiently or inefficiently depending on the quality of communication.

**As part of management, leadership is taught nowadays, as a technique or as a model. Concerned with setting the vision, directions for action and valuing the human factor, the educational leadership invites to reflection and action. Conceived as an operational instrument – in order to support training and self**

## INFORMATIONS FOR CONTRIBUTORS

Manuscripts for publication, should be submitted to **PhD CORNEL NOVAC** (e-mail: [corneliunovac@yahoo.com](mailto:corneliunovac@yahoo.com) or [dppd@central.ucv.ro](mailto:dppd@central.ucv.ro)), Editor-in-Chief, Psychology-Pedagogy AUC, Teacher Staff Training Department, University of Craiova, str. A.I. Cuza, nr. 13, Craiova, 200585, Romania.

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  - right: 3.75 cm
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