Title of the doctoral dissertation

ASPECTS ON THE FORMATION OF THE SELF-TEACHING COMPETENCE OF STUDENTS

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Documentary sources

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Key words/phrases

autodidaxy
program for the formation of STC(S)
personalized self-teaching strategy
psychopedagogical counseling
psychopedagogical diagnosis
self-teaching competence (of students) – STC(S)
ASPECTS REGARDING THE FORMATION OF THE SELF-TEACHING COMPETENCE OF THE STUDENTS

Doctoral dissertation abstract

In the mid twentieth century, the European and the North American higher education were greatly influenced by the changes caused by the widespread presence of the new information technologies, by the increasing number of students (especially adult students), by the increased financial difficulties, by the numerous and diversified service demands of the community, by the increased requirements imposed by the development of the labor market and information explosion (R. Foucher, 2000).

The great presence of the new information and communication technologies raises, for example, issues concerning the integration of the knowledge conveyed by electronic media but also the use of these techniques for educational purposes. This is also correlated with the increasing "student clientage" who must be prepared so as to possess the skills for advanced studies. In addition, a teaching-learning-assessing methodology is necessary in order to satisfy the multiple interests of students.

The increasing number of adult learners raises issues for universities regarding, first of all, the educational strategies and, of course, the formation of the specific self-teaching capacities.

The financial difficulties of schools have led to the need of finding new sources of funding and / or new channels for conveying information.

The community’s service demands require educational interventions different from the traditional ones, even unconventional ones.

The changes on the labor market are a cause of the increased number of responsibilities connected to the management of skills and of recruitment. As a major consequence of the explosion of information, people must learn by themselves, especially from their own particular experience.

The orientation of institutions towards the management of skills leads to a “rethinking” of the higher education based on the principle of developing the "generic skills" (R. Foucher, 2000).

The restructurings occurred in all educational areas - for example: the opening towards and the extension of the "European educational area" and of the world educational area, the broadening of the "European Area of Higher Education in global context", the enhancement of transnational mobility networks for students, teachers and researchers, the development of continuous learning and university cooperation, the wider and wider openness towards "life long learning" and the priority orientation towards
the formation of generic and transversal skills – lead to new theoretical and practical approaches for the formation of education agents.

There are few arguments supporting the idea of need of education for self-education, for self-training. From this point of view the higher education is "the space reserved (par excellence) for self-training practices (R. Foucher, 2000). The formation of the self-training competence of students should be therefore a vital coordinate of the educational policies and praxis.

The issue of returning to autodidactic practices - as acts of training / formation through personal effort, assisted by specialists or not - is contextualized. The need for Autodidaxy - as non-assisted or, at the most, minimally assisted personalized self-training - and, implicitly, for education for (self-) education - is also driven primarily by the strong cultural, socio-political and socio-professional mobility.

The contemporary approaches on self-education, self-training, autodidaxy are more and more numerous and varied; the perspectives psychosomatic, focusing on development, cognition, teaching, focused on organization, sociocultural, extracurricular or epistemological - are essentially complementary. The interest in the theoretical and practical issues of self-training begin to crystallize already in more clear-cut conceptual elements (A.N. Tremblay, 2003), in theories which tend to become unifying and, inevitably, interdisciplinary (G. Straka, A.G., 2007). The psychopedagogical literature is relevant in this regard (A. Alahna, S. Alava, P. Candy, Ph. Careé, J. Dumazedier, R. Foucher and M. Hrimech, G.A. Straka, A.N. Tremblay - in the area of higher education).

The metacognitive perspectives on self-training in academic environments are relatively recent; the investigations on the metacognitive strategies involved in academic learning were initiated in 1990 by M. Hrimech; they are now widely developed by specialized international organizations – GRAME, GIRAT, GRAF, LOS, etc.


The aim of my research was to demonstrate basically this aspect.

Briefly, I have defined the self-teaching competence of the student as the set of the student’s capacities to organize (design-develop-evaluate) their own training conditions. I chose the concept of "competence" because of its significance in relation to teaching, due to the openings towards operationalization. I opted for a more metacognitive and self-managerial approach of the words because it allowed the formulation of a generous theoretical model and of an operating model profitable for the research.

The self-teaching competence of the students (STCS) - a phrase with a pregnant open and dynamic character - covers a set of specific sub-competences: the sub-competence of designing their own self-teaching strategy (the personalized self-teaching strategy - PSTS), the sub-competence of its achievement / application and the (self-) evaluation one.

The personalized self-teaching strategy is a dynamic construct, with an adaptive role in relation to all learning conditions, characterized by uniqueness and originality due to contextualization.
The self-teaching competence of students involves the interdependent functioning of its components, of the pre-sub-competences: self-knowledge – determination of the internal resources of self-teaching, determination of the external resources of their own training and of contextualization of the personalized self-teaching strategy, self-assessment.

I developed a theoretical model based of the STCS based on the metacognitive, pedagogical (didactic) and (self)managerial perspectives. Thus, the STCS has the following structure:

<table>
<thead>
<tr>
<th>Sub-competence</th>
<th>Characteristics of the sub-competence</th>
<th>The capacities involved and the associated abilities</th>
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<tbody>
<tr>
<td><strong>Self-design of the PSTS</strong></td>
<td>design sub-competence</td>
<td><strong>Capacities, decisional and conception abilities</strong></td>
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<td>• formulating the option for the elements of the personalized strategy, the relations among them and for contextualized conception:</td>
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<td>- the use of self-knowledge data</td>
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<td>- the use of data describing the self-teaching (external) context</td>
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<td>- the exploitation of the data referring to the external resources of self-teaching”</td>
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<td>• designing the PSTS:</td>
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<td>- formulating the goals of self-teaching</td>
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<td>- determining the methodological options regarding self-teaching and the assessment of its results</td>
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<td>- selection-organization of the information necessary for the self-teaching</td>
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<td>- establishing adequate organization forms</td>
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<td>- Determining the options referring to the use of the necessary material (space, technique, time) and financial resources</td>
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<td><strong>Achieving the PSTS</strong></td>
<td>sub-competence of achieving/implementing, component</td>
<td><strong>Achieving/implementing capacities, abilities</strong></td>
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<td>- using the self-teaching methods and necessary resources in <em>clear contexts</em></td>
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<td><strong>Self-assessment of the PSTS</strong></td>
<td>assessment sub-competence, meta-component</td>
<td><strong>self-assessment capacities, abilities</strong></td>
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<td>- self-assessment of the training results</td>
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<td>- self-assessment of the self-teaching process as a whole</td>
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* PSTS – personalized self-teaching strategy
** these data are obtained by the following competences: self-knowledge, determination of the external resources necessary for the self-teaching and determination of the self-teaching contextual conditions
The formation STCS involves primarily a pedagogical diagnosis - determining, establishing a psychopedagogical diagnosis regarding the self-teaching capacities; any action of this type involves the following stages: formulating the objectives, the methodological options for diagnosis, interpretation of results (the diagnosis and possible predictions). There is an essential distinction between (pedagogical) (self)diagnosis and (self)evaluation emphasizing especially the exclusively nature formative nature of the former and the psychological and pedagogical nature of its objectives / results. The psychopedagogical diagnosis supports the psychopedagogical counseling of the student.

Based on the theoretical model I have developed an operational model which enabled the generation of the catalog of variables and of certain specific investigation tools: a questionnaire in order to determine the overall level of STCS (an exploration variant and a (self-administered) variant for the use of students) and an interview guide (semi-structured) on self-teaching issues; the questionnaire is flexible enough to allow "technical" combinations with other diagnose tests (I opted for the (adapted) questionnaire of Anna N. Tremblay - "Questionnaire. Autodiagnostic des besoins en autoformation" because it reveals the "critical incidents", the difficulties encountered by the self-taught student in an area (it is a test focused on the metacognitive aspects and which allows multiple qualitative interpretations).

The individual and micro-group diagnoses established in time, within the current educational activity, led to the idea that students do not have a STCS which is scientifically structured, coherently functional, effective. Hence the obvious need for experimental investigations focused on a particular formative program appeared.

However, a program for the formation of the self-competence (of students and also of pupils) is basically an ongoing experiment. Its design requires an adequate philosophical basis, criteria of relevance, coherence and balance, unity and flexibility. The core of this type of program can be summarized in a didactic principle: differentiation - individualization - personalization in (self) teaching. Any such program is necessarily interdisciplinary and should be implemented creatively. The contextualization is defining. From a psychopedagogical perspective the design of a possible program for the formation of this competence is based on a psychological theory (of self-teaching), on a pedagogical one (university pedagogy) and on details of parts of self-management; from a psychological point of view, the formation of metacognition is a priority.

The essence of any program for the formation of the STC(S) assumes as the central objective educating the student's ability to design, use and evaluate personalized self-teaching strategies. Obviously it is based on academic didactic principles of (meta)cognitive nature, it promotes goals (of different generalities) derived from the STC(S) model, it allows the selection and the organization of certain specific contents (flexible, permeable, dynamic and that generate personalized self-teaching strategies), it employs a complex methodological set (that can be adapted for personalization purposes) and favoring organization forms. It involves a network of collaborative and supportive didactic relations (as self-motivation is very important for self-teaching); the teacher is especially a counselor and an assistant while the student gradually becomes their own "teacher".
From a psychopedagogical point of view, the evaluation of the program results focuses on at least two dimensions: acquisitions in the area of STCS and performances that it generates; in the first case the complementarity assessment-self-assessment is implicit and in the second case, the self-assessment (and the self-monitoring) prevails.

I have designed such an experimental program that I implemented within the Land Forces Academy "Nicolae Balcescu" of Sibiu as an optional curriculum entitled "Autodidaxy" and which contextualizes the framework model. The overall objectives were: the formation of favorable attitudes supporting self/inter-knowledge and self-teaching, of permanent attitudes of openness towards self-education and self-training (especially professional), the formation of general self-training abilities (mainly in the profession). The program was experimented with first year students of the military academy.

The theoretical premises that the application of the (FSTSC) program was based on are the following:

* the performances that the students achieve depend largely on the STC(S) because the learning / training activity in "university" environments is mainly "individual study" (or similar forms); this implies the need of transformation of the STC(S) into an explicit formative objective within the academic curricular projects or within a special curriculum project;

* the foundation and the development of a program for the formation of the STC(S) inevitably start from a theoretical model of this type of competence; as I said, I have designed one based on the metacognitive and self-managerial approaches in (academic) education and self-teaching;

* the formation of the STC(S) - a generic competence - opens real possibilities for the development of the necessary qualities for autodidaxy (basic acquisitions for the contemporary man);

* the formation of the STC(S) is an extremely complex, dynamic and - in essence - permanently experimental process; causes: the STCS includes a set of sub-competences (the design of their own PSTS, the interdependent application of the PSTS and its (self)evaluation but with (independent ) evolutions and strong dependencies on subjective/objective factors; therefore, the STCS is a dynamic construct, flexible, open, with an adaptive role (in relation to all the conditions of learning / training), with originality and - above all - uniqueness (by contextualization); the STC(S) implies the operation (desirably synergetic) of pre/sub-competences of self-knowledge, determination of external self-teaching resources and of contextualization of the PSTS;

* the foundation of any formation project of STC(S) starts from a psychopedagogical diagnosis (diagnosis result); in this sense, I emphasize the need for a specific competence of the teacher - the diagnostic competence and, implicitly, I emphasize its importance of its formation and development;

* the formation-development of the STC(S) allows, basically, the formation-development of the (students’) self-diagnosis capacity; the more structured the STC(S) the more coherent, more flexible and operational, the more developed the self-diagnosis "component"; this issue is fundamental for the experiment because it supports the idea of formation of the implicit generic competences, by the formation of the STCS;

* the formation of the STCS develops the set of characteristics (also (meta)cognitive) specific for the students’ age (mainly, adolescence) and allows an optimal maturity; it develops metacognitive capacities, autonomy, responsibility (in general, and self-responsibility in particular), the ability of involvement in the self-training / self-education, develops the capacity of adaptation to the contemporary socio-professional (and educational) environments;

* a general program for the formation of the STCS will always be complemented and supported by specific self-teaching sequences (associated either to school subjects or to the issues they approach, or to personal self-teaching projects of the students);

* the formation of the STCS - designed as an academic curriculum - involves, basically, a partnership, collaborative relation between the teacher and the student; this is why I opted for the terms "optional" / "facultative" that can be associated with the status of the curriculum; we believe that a facultative program for the FSTCS is best suited for first
year students (given the particularities of the university educational environment but also the age / education ones etc. specific to students);

* a general program for the FSTCS is desirable within the academic environments because it can be managed by one single teacher which, from an experimental (and also practical) point of view is favoring; this is why I opted for such a formula (called, in this case 'Autodidaxy');

* any program for the FSTCS is, in essence, a student-centered experiment (focused on the individual and, secondarily on the micro-group); it is designed to create optimal conditions for the structuring of the STCS (generation of the psychopedagogical diagnostic, the minimal information offer for the development of the metacognitive structures, necessary and sufficient (self)teaching contexts for the personalized self-teaching and the (self)assessment of the PSTS);

* a curriculum for the FSTCS considers the student a partner within the process of their own training; this is why the permanent feedback in relation to the activity is necessary; obviously, this open / perfectible curriculum is, at a time (and at a certain level) the result of the explicit collaboration teacher-student; I have demonstrated this in and by the activity of elaboration of certain graduation papers with the final year students.

I started from the general assumption that the performances of students (especially those in the first year) will increase if they use a scientifically developed self-teaching competence. From this hypothesis I derived secondary hypotheses: a scientifically developed STCS can be obtained if special training programs are implemented in this respect; a scientifically developed STCS can be obtained if we provide practice conditions in the activities (with metacognitive, educational content) interesting for the student, freely chosen by them (whether they are curricular or extracurricular). The experiment was designed to allow the monitoring of the formation-development of the STCS by the teacher and also by the student.

In these conditions, the general objectives of the research have become:

A. diagnose of the STCS;
B. the elaboration and implementation of a program for the formation of the STCS (for the students from the Land Forces Academy "Nicolae Balcescu" Sibiu).

Based on the above mentioned I specified the sequential objectives of the investigation:

A.1. designing a diagnose program of the STCS;
A.2. designing certain diagnostic tools (at least general) of the STCS;
A.3. elaborating individual and group psychopedagogical diagnoses pedagogical ("start" data for the elaboration of the training program), general (and maybe specific);
A.4. formulating individual forecasts (as behavioral / performance approximations).
B.1. elaborating the theoretical model of the STCS;
B.2 generating the operational model of the STCS (based on the theoretical one);
B.3. determining the catalogue of variables involved in this experiment;
B.4. elaborating the program for the FSTCS;
B.5. implementing the FSTCS program;
B.6. evaluating the results of the program application (comparisons between the initial and the later/ "final" diagnoses)

The main variables involved in the experiment were: the students' self-knowledge capacities, the capacities of managing the internal resources of their own personalities (involved in the self-teaching), the capacities of determination of the external resources necessary for the self-teaching, their management capacities, the capacities of designing the PSTS, the capacities for its implementation, the (self)assessment capacities of the personalized program and of its results.

The experimental program was applied to a group of 144 subjects (85 students of the air and land forces military academies, 30 civilians students from higher education institutions in Sibiu and 29 students of military
The experimental approach was structured as follows:

<table>
<thead>
<tr>
<th>General stages</th>
<th>Specific stages of the experiment for the formation of the STC(S) (research)</th>
<th>Didactic stages</th>
<th>Methodological sets</th>
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<tr>
<td><strong>the pre-test</strong>&lt;br&gt;(the determination stage)</td>
<td>Diagnosis A (psychopedagogical initial)&lt;br&gt;→ group and individual psychopedagogical diagnostics the group and the subgroup (referential and experimental)</td>
<td>psychopedagogical diagnostic I</td>
<td>– DNGCA(S) questionnaire – variant A; – test QABA; – semi-structured interview on STC(S) issues.</td>
</tr>
<tr>
<td>determination research; start data, sampling (determining the experiment groups and the control ones)</td>
<td>Implementation of the formative program “Autodidaxy”&lt;br&gt;→ facultative curriculum meant for the first year students in the experiment groups – the experimental sub-group</td>
<td>general program for the formation of the STCS (with personal exercises of PSTS design and applications)</td>
<td>– strategies of teaching-learning- assessing of metacognitive nature; – personal reflection journal; – opinion sheets; – PSTS projects (portfolio); – teacher’s journal.</td>
</tr>
<tr>
<td><strong>the experiment</strong></td>
<td>Diagnosis B (psychopedagogical final)&lt;br&gt;→ psychopedagogical diagnostics (II) especially individual and, eventually, group (for the experimental group and the control one)</td>
<td>psychopedagogical diagnostic II</td>
<td>- DNGCA(S) questionnaire – variants A and B; – test QABA; – portfolio analysis; – semi-structured interview on STC(S) issues.</td>
</tr>
<tr>
<td>the actual development of the experiment; application of the formative program within the experiment groups</td>
<td><strong>the post-test</strong>&lt;br&gt;quantitative and qualitative analysis of the experiment results (comparisons between the results obtained by the experiment groups and the control ones)</td>
<td>individu&lt;sup&gt;al&lt;/sup&gt; self-teaching program</td>
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<tr>
<td><strong>the re-test</strong>&lt;br&gt;quantitative and qualitative analysis of the experiment distant results (in time); the results of the formative experiment are verified and the initial hypothesis is re-tested</td>
<td>psychopedagogical diagnostic III</td>
<td>psychopedagogical diagnostic III</td>
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The experiment revealed that the students – but also the twelfth grade students of military colleges, in the sub-group subjected to the initial diagnosis – have weak and empirically structured self-teaching competences, thus, less effective: they have and they use little scientific, operational information about self-teaching; their knowledge capacity and their capacity of managing the internal personality resources involved in self-teaching, are almost unstructured and non-functional; with insignificant nuances, we can say the same about their capacities for determining and managing the external resources; regarding the sub-competences for designing-implementing-evaluating a personalized self-teaching strategy, it was demonstrated that they operate spontaneously and are almost unstructured. The metacognitive elements specific to the self-teaching activities are few, isolated, random and
inarticulate. Therefore the creation of self-reflection sequences in (self)teaching is both necessary and beneficial.

From the individual and the micro-group diagnosis, to the specific and general one, gradually we reached current and final forms, in self-diagnosis and self-assessment attempts (even simple, limited). The inconsistencies, the errors and the hesitations were inherent because the diagnosis, the monitoring and the improvement of the STCS are complex processes, contextualized and designed - first and foremost - to support the permanent (re)construction of personalized self-teaching strategies.

The current diagnosis allowed the monitoring of the students’ and the micro-group’s progress from the point of view of gradual, quantitative and qualitative structuring of the STCS components. The permanent dialogue with the psychologist and the specialist teachers were really helpful.

The final diagnosis, but also the distant evaluations have demonstrated the usefulness of the program:

1) more students (about 23%) know what self-teaching and autodidaxy mean, they define them correctly; if at the beginning of the experiment nearly 66% of students in the group from LFA said that self-teaching is important "to some extent", after experiment 80% of them give a "very high" degree of importance and about 14% consider it "to a great extent" important; initially, the students' opinions on the elements needed for the design of the PSTS were oriented towards subjective factors; and after experiment, the students (44.6%) give the greatest importance to the self-teaching, to "self-knowledge";

2) if, before the experiment about 25% of students said they practiced self-teaching in at least one area, after the experiment almost 32% of the them do so – they design PSTS based on scientific criteria; in addition, they state that they want to learn more about the area;

3) if initially most of the students (41.7%) declared that "they did not believe that there was a specific area where self-teaching is necessary to", after the experiment nearly 44% of them indicate at least two areas;

4) If initially 44.5% of the students said that they "often" approach the issue of the availability and the degree of achieving self-teaching in an area, after the experiment about 60% of them claim this; if only 56% considered this issue of "medium difficulty", after the experiment the degree of awareness increased - 74% claim this;

5) .37% of the students initially thought quite "rarely" that self-teaching involves calculating costs and 26% of them said they "often" thought about this aspect; after the experiment, nearly 60% of them said they "often" thought about this;

6) .37% of the subjects initially declared that they "occasionally" thought about pre-establishing certain clear objectives of self-teaching and nearly 30% did so "often"; after the experiment, almost 56% think "often" about this issue; it is interesting that almost 67% of the students consider this issue "difficult", although initially only 30% of them perceived as such; I interpreted this as an evidence of the increasing awareness and hence, of the responsibility degree in relation to self-teaching;

7) before the experiment almost 41% of the students said they thought "often" about designing the self-teaching process; after two semesters, nearly 52% do this "very often" and 74% consider the issue of planning "relatively difficult";
8) Initially 37% of the students said that they "often" thought about organizing the daily program so as to allot some time for self-teaching, too; 33% considered it of "medium difficulty"; after the experiment 70% consider it as such; if we also add the fact that 88% feel the need to consult other persons on this issue, then we can say that the perspective on the need to manage time under specific conditions has changed significantly;

9) Approximately one third of the students said before and after the experiment that they "occasionally" thought about the need to identify the persons they might ask for support in self-teaching; but almost 10% more of them find this of "medium difficulty"; the students have come to ask themselves more pertinent questions about the need of assistance in the self-teaching process; after attending the program they do not find it that "easy" to plan and connect "relations" with specialists;

10) After the experiment, almost 41% of students (compared to the initial 33%) said they "often" thought about issues on self-evaluation; all students think about this but I found out that they perceive it at very different levels of difficulty: although originally they said that is was of "medium difficulty" after the re-testing they found it "easy"; the clarifying discussions on this subject have shown that, in fact, they do not consider the clear aspects of self-evaluation but a generic perspective; I considered that, at this level, the specific sub-competence is "weakly" structured – although they are aware of the need for self-evaluation, the students' reflections (and even less their meta-reflections) are shy;

11) Almost 41% of the students sais initially that they must identify the necessary self-teaching materials; after the experiment, almost 49% do so (78% of them perceive it as an issue of "medium difficulty");

12) Approximately one third of the subjects initially declared that they thought "occasionally" about the issue of the financial efforts required; after the experiment almost half think the same way;

13) If initially 44% of the subjects reflected on environmental issues and did so quite "rarely", after the experiment about 60% consider it "easy" and 52% think "often" about these issues;

14) Initially, 37% of the students said they thought "often" about the practical transfer of theory; after one semester, almost 34% do so only "occasionally"; it is difficult for a first year student, to transfer into practice some theoretical aspects – this is why, after the experiment, most of them (over 85%) said they considered this issue of "medium" difficulty;

15) If, before the experiment, one third of the subjects stated that they thought "rarely" about the need to distinguish between conflicting information, after the experiment, over 44% of them "often" do so; almost 78% (compared to the initial 41%) consider it an issue of "medium difficulty"; after completing the program the students have realized what it means "to discern" specifically with regard to conflicting or even contradictory information when they selected bibliography, when they analyzed documents and drawn sets of sets information contents;

16) I found that almost 45% of the students think "rarely" that, during the self-teaching, they might need motivational support (less than 30% originally had this opinion); after the experiment 74% of the subjects considered it "medium difficult" (just as they perceived it before the experiment);
17) if initially almost 41% of the subjects "rarely" thought about their ability to teach themselves, after the experiment more than 48% "often" do so.

We believe that the program has reached at least its general objectives, that it was perceived favorably and that it opens many research possibilities.

It demonstrated the necessity and the usefulness of pedagogical counseling also in academic environments. The psychopedagogist counselor is a facilitator of achieving effective learning; the student can receive support in self-knowledge especially from the point of view of learning and training mechanisms; then, they are empowered (taught) in a personalized manner to realize the resources, to activate them and to exploit them optimally. More broadly, the student can access information and instruments necessary for the efficient solution of their issues, they become capable of structuring progressively a reasonable professional and life management. The psychopedagogical counseling - that we have used it throughout the program - adapted to the military academic environment is structured as a service for all students, teachers, managers of training-educational processes and the educational institution. Depending on the possibility of establishing specific diagnoses and individual, micro-group and institution level, the counselor serves "all" those involved / interested in the efficiency of the educational process. The particularities of the academic environments allow us to appreciate that the most appropriate forms of psychopedagogical counseling are those “for efficient learning” and "for development."
GLOSSARY

**Autodidaxy** – all the activities used by the individual (student) to design – carry out – assess their own training autonomously, independently; the training is unassisted, not directed by a facilitator.

**Competence** – all the capacities, abilities, skills and handiness that the individual uses in practice, that they use for the practical application of certain knowledge, information, etc.

**Current psychopedagogical diagnosis** – its aim is to formulate a partial diagnostic (with a sequential/partial formative value); it is useful during the implementation/validation of the STC(S);

**Final psychopedagogical diagnosis** – useful for the determination of a final psychopedagogical diagnostic – after the application of the program for the formation of the STC(S); basically, at this stage of evolution of the individual/group, it seems improper to use "diagnosis" projects and to formulate a "diagnostic", but we prefer to use these terms in order to emphasize two major aspects (generated by the pedagogical reality): the essential-fundamental formative value of the projects for the structuring/restructuring of the STC(S) and the (positive) relativity of the process-product; thus, we make the distinction between the psychopedagogical diagnosis and the pedagogical evaluation (especially the final one); the first has exclusively formative valences, focusing simultaneously on psychological and pedagogical components; the latter can be formative and, usually, it focuses exclusively on the pedagogical elements.

**General (psycho)pedagogical diagnosis** – which focuses on determining certain elements that influence self(teacher) (for example: the general motivation for learning, the existence/and the degree of elaboration-use of some general strategies for documentation and information processing;

**Group diagnosis** – focused on groups/micro-groups of students; it is useful for the foundation of (self)teaching pedagogical projects applicable at a (micro)group level;

**Individual diagnosis** – that focuses on an individual, a student; it is essential for the foundation of the personalized self-teaching strategy;
Initial psychopedagogical diagnosis – which is aimed to determine/formulate an initial diagnostic; it precedes (and is absolutely necessary for) the creation of any pedagogical project for the formation of STC(S);

Meta-competence – a type of competence that includes capacities, abilities, skills that can be used by an individual in order to become aware, to monitor and to adjust the operation of other competences (observation: in the case of meta-competences too, the variations referring to "sub"/"pre"competences are valid as its component elements can operate previously/subordinately within a meta-competence, as compared to the nucleus-meta-competence).

Personalized self-teaching strategy – all the norms, methods and procedures of (self)teaching that the individual uses strictly personally in order to reach certain pre-established objectives; it involves a personal style in approaching and solving the self-teaching issues; (observation: we must make the distinction between individualization and personalization (both in teaching and self/teaching) meaning that personalization is a maximal form of individualization; it is unique, it is characteristic to only one individual (eventually, in only one teaching context); it implies forms of thorough (self)knowledge; consequently, uniqueness defines personalization).

Psychopedagogical diagnosis – the process for the determination of a pedagogical diagnostic, as a whole (including all the characteristic stages – establishing the aim and the objectives of the diagnosis, choosing the appropriate methodology, interpreting the results of the investigation and formulating the diagnostic, approximating the eventual forecasts).

Pre-competence – a component element of a competence that contextually, can/must precede the exercise of the competence; (observation: the status of "pre"competence is relative as, depending on the real situation, the precompetence can appear/can be approached as a sub-competence or even as a competence).

Psychopedagogical diagnosis – all the operations for the determination of the pedagogical diagnosis by the use of a coherent set of methods/techniques/procedures and specific instruments (psychological, pedagogical, and sociological).

Psychopedagogical diagnostic – a complex result of the diagnosis process, expressed differently (from psychological evaluating formulations to pedagogical marks/grades).

Self-teaching (of students) – all the activities used by an individual to design – carry out – assess the (internal and external) conditions of their own training.

Self-teaching competence of students (STCS) – all the capacities, abilities, skills and handiness that the individual (student) uses to design – develop – assess effectively, practically their own training (self-teaching).
Specific (psycho)pedagogical diagnosis – this term can have at least two meanings: a) determining certain component elements of the STC(S) in an area; b) determining the STC(S) connected to a topic, an issue a certain study area;

Sub-competence – a component of a competence; an operational element – partially in connection to the competence that it contributes to – used by the individual in practice; it can be a capacity, a skill, an ability or mode gathered in an operational complex; (observation: the term is relative (or more precisely the prefix "sub" is relative) as – depending on the context – a sub-component that becomes predominant can have the role of competence).
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