

HABILITATION THESIS

Abstract

This habilitation thesis presents my most important professional accomplishments in scientific research from the last 10 years, after receiving the PhD title in Education Sciences. The main contributions presented here are structured on three significant domains: Scientific, Professional and Academic; the most important domain, largely described in the thesis, the scientific one.

In the **Scientific accomplishment** field, my research interests, reflected in theoretical and empirical studies, can be organised using, as an analogue model, the three trait levels: Cardinal, Central and Secondary traits, from Allport's Theory of Personality (1981).

- A) The *cardinal interest*, that prevail in all my research (both theoretical and empirical studies) is on learning as information processing, placing a particular emphasis on metacognitive knowledge, metacognitive processing and their implications for education.
- B) One *central interest* field is focused on academic learning in the traditional and in an on-line learning environment.
- C) A *second interest* field is in the early childhood education.

A) The main research interest, the cardinal one, ***learning as information processing, metacognition and their implications for education***, is mainly emphasised in the book „Didactics – foundations and cognitive developments”. The book was published after receiving the PhD title and reflects its most important theoretical ideas.

The subject of my PhD thesis was „Restructurings of Didactics on a cognitive psychology basis” and its ambitious aim was to amend the theories of didactics using the cognitive psychology. The psychological fundamentals of Instructional Theory in Romania, tacitly agreed and assumed by the pedagogues at that time, were valuing the classical and „safe” theories of learning: such as behaviorism with the related developments, the humanistic psychology and some parts of the socioconstructivist theories.

The main contribution of my book consisted in the endeavour of restructuring and rewriting the didactics. This attempt is wide-ranging in scope as it implies a paradigm change: rethinking didactics based on cognitive concepts and theories.

Nowadays, the assumption used – that cognitive psychology (cognitive sciences in general) can offer a large base of reconceptualisation for the instructional theory – proves to be right.

The epistemic bases of scholastic knowledge ask for increasingly more study, reflection, questioning and sometimes for amendments. Researchers, teachers and the main public look usually for cognitive explanations of learning processes and knowledge. Some advanced theories at that time, such as critical thinking or multiple intelligences or constructs as metacognition, were refined and tested in a variety of educational contexts.

Learning as information processing, metacognition and the educational implications of some concepts, constructs or theories were the subject of many of my empirical studies that I presented in the Articles section. I refer mainly to the articles in which I investigate the importance of metacognition as trait versus state, the last one being more predictive for

academic performance; the quality of the monitoring processes' for understanding the text of tricky math problems and solving them; the issue of metacognitive judgement accuracy for academic performance; and other issues that can influence learning: types of cognitive processing, epistemic curiosity etc.

B) The interest in *academic learning in the traditional and in an on-line learning environment* conducted me, on one hand, to analyse the learning preferences of students, and on the other hand, towards identifying a model for elaborating courses in the e-learning form.

C) The interest in the *early childhood education* was oriented towards: investigating the topic of parents' counseling of preschool children from Iași and the publishing of a theoretical study on the development of the motricity at the pre-school children.

The field **Professional accomplishments** includes the following issues: academic conference attendance, committee member for supervising PhD student's thesis progress, national and international research and development grants.

The field **Academic accomplishments** includes my academic and career plan, the competences and qualifications achieved in the last years, and my academic intern and extern activities.

The thesis' final part presents my career plan, that is organised according to the expertise theory. I am considering both the basis of my career, that are clearly defined at this moment, and the new directions that I can reasonably anticipate for my own professional development as well as for the possible evolutions in the learning psychology field.

I consider that a reflexive and self-evaluative attitude, the sophisticated epistemic beliefs based on data, facts and empirical studies will successfully guide our own upcoming research and our PhD students' research in the benefit of knowledge.