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t the beginning of 2006, the Spanish Ministry of Education published a new Education Act (*Ley Orgánica de Educación, LOE*), whose provisions will be implemented over the coming years, and whose basic aim is to offer an education capable of responding to the changing needs and new demands of our society. This aspiration to achieve an education system that serves to improve society and the lives of individuals is not in itself a novel one; rather, it has been present throughout the many phases in the evolution of the education system, each of which has sought to respond to the priorities and challenges of the particular historical moment. This evolution, which has proceeded through the passing of successive education acts, has brought with it crucial advances for the whole of society.

For example, the concept of learning was the object of significant changes over the course of the twentieth century, as testified by the enormous quantity of educational research and the underlying practical work. From an initial "mechanistic" conception, associated with behaviourist interpretations and confining learning to a process of the acquisition of responses, there progressively emerged more dynamic conceptions of the act of learning (Mayer, 2004).

The student, conceived in the first half of the 20th century as a mere machine for acquiring facts for regurgitation, gradually comes to be considered as a data processor who receives, transforms, utilizes and recovers information. Later, and especially in the 1990s, students begin to assume a central role in the teaching-learning process. They are the artisans, the authentic actors in the process, becoming understood as active constructors of knowledge.

Following this logic, the process of the construction of meaning emerges as the central element in the teaching-learning process. The learning of content and concepts and the understanding of physical and social phenomena, norms and values occurs when, and only when, the student is capable of attributing a personal meaning to them. Under this assumption, the focal point of learning, which was previously the teacher and his or her instructional methodology, now becomes the knowledge built up by the student, and moves towards the cognitive, motivational and behavioural dimensions s/he activates during the learning process (Rosário & Almeida, 2005).

Considering students as carrying the main burden of responsibility for learning does not mean that "they must be given everything on a plate"; rather, it means that "everything has to be done by them (and with them)". Thus, in order to make progress in the school context, as in any other area of life, it is necessary to act, to question, to understand and to transform – in short: to work!

Students must make the first step so that studying and learning become substantive and transformational activities for them, insofar as they change their understanding of reality. School must fulfil the decisive role of "creating the conditions for the student to be able to construct meanings", not only to acquire content, and of promoting the development of the competencies necessary for achieving meaningful learning (acting, understanding, questioning, transforming, self-regulating, etc.). Parents are expected, at least, to impress upon their children the importance of studying, providing them with the physical and psychological conditions for study, and accompanying them both as they make progress and when they encounter difficulties. The teacher, the fam-

ily and the rest of those involved in education are thus required to play a mediating role between the child and education.

However, the facts contradict all of this theory. Students who succeed in entering university present, in general, a series of characteristics that fall well short of the pretensions of educational approaches and theories and the systems established by legislation.

First of all, the shortcomings with which many students enter, and even leave university are striking (Armengol & Castro, 2003-2004). And the deficiencies in question concern not only the level of knowledge, but also, and above all, its quality. Thus, there are considerable shortcomings in relation to matters as basic as understanding texts in a critical manner, arguing a case or view, or taking notes. Indeed, research has reported findings as alarming as the following: (1) 70% of students take notes in a purely mechanical, reproductive way, and have no strategies for doing otherwise (Barberá, Castelló & Monereo, 2003); (2) a lack of predisposition and ability for comprehensive understanding of scientific texts (Mateos & Peñalba, 2003); (3) mediocre results in skills related to critical thinking and argumentation (Correa, Ceballo & Rodrigo, 2003), (4) teachers' concern with students' incapacity to apply or utilize their knowledge in other contexts (Pérez & Carretero, 2003).

Secondly, the majority of students arrive at university without the necessary ability to learn independently, with serious shortcomings in the way they learn and in relation to control of the variables that influence their learning. Thus, the learning approach of many university students is characterized by a low level of strategy, reflecting a failure to develop the specific aptitudes necessary for profound and comprehensive learning.

Thirdly, university students present frankly unsophisticated notions of learning, which in the majority of cases takes place at only the most superficial of levels (Monereo & Pozo, 2003; Martí, 2003). The epistemological conceptions of most students are confined to the consideration of knowledge as reproduction. This shallow conception of learning affects all the dimensions of their academic life.

Thus, there is clearly a failure of successive education acts, or of the way in which their stipulations are carried out, to achieve the intended educational results. It is beyond doubt that the efforts to improve the education and training of our young people have failed to bear the desired fruit. The data from PISA (Programme for International Student Assessment) reports have repeatedly borne witness to this fact. So, exactly what is happening?

In this special issue we present a series of studies car-

ried out by teachers and researchers at our universities whose ultimate aim is to promote discussion about what can be done to improve students' learning in our schools and in higher education, and about how to enhance the personal and contextual conditions that will increase competencies for future independent learning.

REFERENCES

- Armengol, C. and Castro, D. (2003-2004). Análisis de los nuevos escenarios universitarios: reflexión previa a los procesos de cambio. *Contextos Educativos*, 6-7, 137-158.
- Barberá, E., Castelló, M. and Monereo, C. (2003). La toma de apuntes como sistema de autorregulación del propio aprendizaje. In C. Monereo and J.I. Pozo (Eds.), *La universidad ante la nueva cultura educativa. Enseñar y aprender para la autonomía* (pp. 93-110). Madrid: Síntesis.
- Martí, E. (2003). Conclusiones: El estudiante universitario del siglo XXI. In C. Monereo y J.I. Pozo (Eds.), *La universidad ante la nueva cultura educativa. Enseñar y aprender para la autonomía* (pp. 111-116). Madrid: Síntesis.
- Mateos, M. and Peñalba, G. (2003). Aprendizaje a partir del texto científico en la universidad. In C. Monereo and J.I. Pozo (Eds.), *La universidad ante la nueva cultura educativa. Enseñar y aprender para la autonomía* (pp. 79-92). Madrid: Síntesis.
- Mayer, R.E. (2004). *Psicología de la educación. Enseñar para un aprendizaje significativo*. Madrid: Pearson.
- Monereo, C. and Pozo, J. I. (2003). La cultura educativa en la universidad: nuevos retos para profesores y alumnos. In C. Monereo and J.I. Pozo (Eds.), *La universidad ante la nueva cultura educativa. Enseñar y aprender para la autonomía* (pp. 15-30). Madrid: Síntesis.
- Pérez, M. L., and Carretero, R. (2003). La promoción de estudiantes estratégicos a través del proceso de evaluación que proponen los profesores universitarios. In C. Monereo and J.I. Pozo (Eds.), *La universidad ante la nueva cultura educativa. Enseñar y aprender para la autonomía* (pp. 173-190). Madrid: Síntesis.
- Rosário, P. and Almeida, L. (2005). Leituras construtivistas da aprendizagem. In G. L. Miranda and S. Bahia (Org.), *Psicologia da Educação. Temas de desenvolvimento, aprendizagem e ensino* (pp. 141-165). Lisboa: Relógio D'Água.

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