

## **PROPOSAL FOR A TEACHING METHODOLOGY FOR THE ADAPTATION OF DESCRIPTIVE GEOGRAPHY SUBJECTS TO THE EHEA: THE CASE OF THE GEOGRAPHY OF EUROPE**

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### **1. INTRODUCTION**

The objective of this communication is to present the most significant aspects of the teaching experience carried out in the Geography of Europe of the first year in Geography and Territory Management degree in the Seville University during the year 2014/2015. The experiment consisted in designing, implementing and evaluating a new methodology for the teaching and learning of active character, autonomous and based on problems (in English New Education in Works, paraphrasing, New Method based on jobs). The NEW methodology is opposed and replaces Traditional Teaching Methods (MDT) that is commonly used in the teaching of the subjects of Geography of descriptive type or general.

We'll confront the main characteristics of MDT with the main features of the NEW. The NEW puts the emphasis primarily on "learning to learn", i.e. in the development of competencies and skills in students that will enable them to build knowledge, learn throughout life and to deal with certain guarantees of success in the future challenges of learning (Hernández, Rosario, and Costs: 2010, cited by Salmerón-Pérez and Gutierrez-Braojos: 2012, 6). This is directly related to the promotion of the entrepreneurial skills and professionals who, as recommended by the European Parliament and the Council (Recommendation 2006/962/EC) and the indications of adaptation of the degrees to the EHEA (Cos and Reques: 2010), give the learners autonomy, flexibility, adaptability and motivation and constitute an essential factor in innovation.

## **2. NEED FOR A TEACHING METHODOLOGY FOR THE ADAPTATION OF MATERIALS OF DESCRIPTIVE GEOGRAPHY TO THE EHEA: THE MDT COMPARED TO THE NEW**

### **2.1. The inadequacy of the previous traditional teaching methods (MDT) to acquire a significant learning in the current context**

The reasons to develop the teaching methodology NEW arise during the teaching in the last five years of subjects that we call descriptive in the degrees of History and Geography of the University of Seville. Along these courses i was accumulating a series of perceptions and experiences that have been translated into doubts and concerns about what learnings obtained the students with the teaching methodology used. Until this time, the didactic strategies that had employed in these subjects did not differ from those used by my colleagues in the same or similar materials from the rest of the Spanish universities.

The traditional teaching methods (MDT) presented two main characteristics:

- (i) The didactic strategy is of the traditional type. According to Santiago (2005a), the subjects of descriptive geography involve teaching procedures of traditional accent that are limited to transmit knowledge, since: consider geography as a set of facts that are stored; the learning success is determined by the ability of the student to play ideas, habits and attitudes that the teacher has exposed in the classroom previously; and placed excessive emphasis on the description, more than in the explanation.
- ii) In the MDT, the role of the teacher in such teaching practice, that places it as the center, protagonist and responsible for this system of teaching-learning puts the student in a secondary position and passive.

For all these reasons, the main conclusions which I arrive were that the traditional teaching method employed not allowed that the students to acquire jointly knowledge, skills and abilities (Salmerón-Pérez and Gutierrez-Braojos: 2012). Well, how do you explain dynamic and complex situations in the global world with a pedagogic activity based on the dictation and the magisterial class? How to orient teaching and learning toward the knowledge and know-how with a practice so concerned for the reproduction of knowledge? (Santiago: 2005, 5). With the MTD it is not possible to deal with the different challenges and opportunities posed to us by the current scenario: neither our students can acquire those abilities (skills, skills) to function autonomously and with success in the world today; nor we as teachers of higher education we can foster a training for employability of students (Esparcia and Sanchez: 2012, cited by Zúñiga and Pueyo: 2013, 58) and their insertion in the labor market.

## **2.2. The NEW a new learning experience adapted to the EHEA**

The social context, political, economic, etc., in which we developed both teachers and students, is complex; and its main characteristics are the change and uncertainty. Morin (2001, 3) already perceived this scenario and he stated that the great challenge of the formation of the future would be to train to face the uncertainty. Educate to face the uncertainties is synonymous of educating for the entrepreneurship as recognized by the European Commission (2014). Educate in the endeavor involves developing the ability of the person to transform ideas into acts. Is related with the creativity, innovation and risk-taking, as well as with the ability to plan and manage projects with the aim of achieving objectives. Therefore, this type of training focuses on promoting capacities conducive to entrepreneurial activity, such as the self-confidence, self-esteem, self-efficacy and the need for achievement (Rasheed, 2000), and makes it possible to face and assimilate the continuous changes. For this reason, entrepreneurship education is a tool that can help students to develop skills and cross-cutting skills: critical thinking, initiative, decision-making, problem solving and collaborative work (European Commission, 2014, 3).

One of the objectives of the European Higher Education Area (EHEA) has been the development of new methodologies for teaching and learning that stimulate the entrepreneurial skills through the resolution of problems and to promote the autonomous learning, but guided, students. The implementation of EHEA breaks with the MTD to give prominence to the student learning: these become the true axis of the university education; and the teacher is a mediator or guide in this process. To this end, studies of degrees that arise of the EHEA must approach the teaching-learning process in the acquisition of skills, abilities and attitudes on the part of the students. Reversing the terms expressed by Acevedo (2009), I would say that there is the need to achieve, on the part of students, a domain of certain attitudes, skills and competencies linked to the learning processes that are essential to obtain and apprehend the contents correctly (knowledge, concepts).

The way to adapt education to the new “knowledge society” or of the learning throughout life is to develop teaching methodologies that put the emphasis on two fundamental aspects of a completely opposite to the MDT (Fernández: 2006). In my opinion, the new paradigms/methods of teaching and learning must meet at least three requirements: that are autonomous, assets and focused on the student learning.

The didactic method alternative to the MDT that i have developed in accordance with these requirements i have named NEW by its initials in English (New Education in Works) and free-form that I translate as “New teaching based on Works”. I called it so because this method is based on three educational tools that allow the teaching in the entrepreneurship in accordance with the new context of the ESHE: problematization as didactic strategy; problem-based learning (PLB); and construction of sequences of learning.

### 2.2.1. *Problematization*

Meirieu (2002), quoted by Diaz-Barriga (2014, 8), suggests build didactic sequences from some element/problem of reality, an issue that will help teachers to create a question, an enigma that gives meaning to the act of learning. Therefore, the problematization is used as a strategy to achieve a creative learning and stimulates their learning. The problematization is the start of the new methodology without which it is difficult that the students can initiate a process of learning, because involves questioning, initial curiosity or motivation (Chan: 2006).

### 2.2.2. *Problem based learning (PBL)*

The PLB is an active learning methodology and autonomous in the that a guardian (professor) poses to students a problem to analyze and resolve designed especially for the achievement of certain objectives of learning. During the process of interaction to understand and resolve the problem, the pupils, in addition to achieving a learning of knowledge inherent to the subject on the basis of their own needs, they develop skills of analysis and synthesis of information (ITESM: 2005, 4). We therefore believe that the PLB is a didactic resource that is complemented by the problematization and represents an alternative to model MDT (Figure 1), used in university education (Garcia: 2008), commonly used in subjects of descriptive geography. The PLB requires that the students take the responsibility to learn for themselves through the resolution of tasks or jobs in a creative manner. When using the PLB in the new strategy we intend to facilitate the participation of students' acquisition, construction and organization of their own knowledge (Santiago: 2005b).

### 2.2.3 *Construction of sequences of learning (Diaz-Barriga: 2014)*

According D'Hainaut (1985), quoted by Diaz-Barriga (2014, 18), the learning sequences emanate from a new didactic whose main objective is to generate processes focused on learning, working real situations taking into account the varied complexity of the same. Consequently, we can say that the learning sequences incorporate both the problematization and the strategy PLB, configuring the central didactic elements to the NEW. These consist of a didactic sequence that assumes the phases of the PLB and is formed by a series of learning activities that have an internal order between yes and comprising two elements that are performed jointly: the sequence of activities for learning, and evaluation for learning inscribed in those same activities (Diaz-Barriga: 2014, 10). These tasks are: (a) Opening activities (which consist in choosing a theme to work on the part of the students that I could be a problem of the reality or a question that part of significant questions for students); b) development activities (complement

to the above because they provide new information to connect or interact with the prior knowledge of the students); and (c) activities of closure (final tasks are to show the learning achieved by the pupils).

### **3. THE NEW METHOD APPLIED TO THE SUBJECT OF GEOGRAPHY OF EUROPE**

The subject chosen was Europe Geography of the first year of the degree in Geography and management of the Territory in the course 2014/15. The main elements of the teaching guide of the subject to highlight developed following the NEW strategy are the following.

(i) Objectives: The main objective of the subject is “self-learning Europe Geography in 60 ideas” (autonomous learning). This objective entails a double aspect: (a) scientific-technical (“what”, contents): Learn 60 basic or main ideas on Europe Geography); and (b) of type of competence (“how” competence, processes): “Learn to Learn”, development of entrepreneurial capabilities as initiative, creativity, innovation, problem solving, decision making, risk-taking, use of ICT and languages, etc.

Using the NEW it is intended that the students to acquire a set of skills and cognitive skills essential to ensure that they are able to learn by themselves (self-learning) and build their own knowledge. These competences are: organization and planning of the tasks; identification and use of prior learning; analytical thinking (search and analysis of sources of information, identification of the key themes and various positions on the same); identification of problems (what are the key questions or fundamental issues); and critical thinking (opinion and posture own argued and/or justified).

(ii) Blocks and units: of departure in the program does not specify blocks or units because, as didactic strategy based on the problematization, the subject begins posing to the students a first problem (Figure 2), so that this exercise serves of example to explain to students the methodology to be followed throughout the course. Therefore, the first activity/problem to solve part of an initial question: “What I have to learn about the Geography of Europe?”

(iii) Course Methodology: is based on the realization of Fortnightly or weekly activities that involve the solution of problems (problematization as didactic strategy and PLB). Some of the types of activities would be the following:

- Activities of openness. In them, the students select the contents of each theme doing a dossier following a Protocol of Autonomous Work that includes: (i) the timing of the activity (hours of work in the classroom and outside of it, exposure by

- the teacher or students); and (ii) the phases of work: documentation or information search; reading, processing and extraction information; and construction (organization and processing) of the knowledge.
- Development activities. Professor proposed in the classroom what could be the main contents of each theme in two ways (Figure 3): (i) listing those contents by means of epigraphs not organized extracted from the bibliographic sources consulted or of the programs of the subjects of Europe Geography in other universities; ii) from clouds of words with the main concepts of each topic.
  - Closing activities and evaluation. 3 tasks were designed for this phase of end learning: i) weekly, the students should develop and deliver (within a fixed period) a file weekly goals (Figure 4). This file should collect a series of content of each topic: Bibliographic sources consulted (at least 3), 3 main ideas, 3 secondary ideas, a schema or summary and, if it was possible, some image. It aimed to evaluate (and to show students) to what extent the compilation, the organization and the content development did not imply learning for themselves; and (iii) at the end of the course should deliver a quadrant of main ideas. This document should collect all the main ideas, organized by week, that each student had developed during the four months, i.e. the 60 ideas for (auto)-Learn Geography of Europe.
  - Academic activities of evaluation. The activities employed in the final qualification of the students were: (a) continuous assessment through the Weekly Tabs Goals and the quadrant of main ideas. Represented up to 50% of the final note; b) exposures in class: corresponded to 20 per cent of the final note; and (c) a final written test on a topic of Geography of Europe until a 20% of the final note.

Activities (a) and (b) allowed us to evaluate the level of scientific knowledge acquired by the pupils. The final test was made with the use of a personal computer (with internet connection) and students could refer to all the materials that had developed during the four months. Each one of the questions was designed to allow us to assess also the core competencies trained by the students during the course: organization of information, prior learning, analytical thinking, problem identification and critical thinking.

#### **4. RESULTS AND DISCUSSION**

To evaluate the results of the NEW experience and to point out some evidence on the positive and/or negative in this learning process we must analyze the achievements of our students, i.e. its partial qualifications and final. In the first place, 94.2 per cent of the students performed works of the file weekly goals, which seems to show, on the one hand, that the NEW promotes and stimulates the continuity of the students in their

learning; and, on the other, NEW be shown as a process in the students gets concrete results week to week, and not through of “one” qualification in a final exam single. However, if we calculate the end average mark of students in weekly activities, statistics reflects a score of 5.2 on 8, which shows that they have reached the 65 per cent of the total technical-scientific knowledge. This seems to indicate that there is a need to improve some procedures in the NEW that allow greater learning of content on the matter.

In assessing the closing activities, the results were negative, since nearly 75 per cent of the students were incapable of responding correctly to the questions. The explanation of this can be to the fact that although the students could consult the materials that had elaborated personally, the answers to the questions involving complex reflexions (questions demand a brainstorming exercise, not are written). This requires some time to think and reflect. In other words, the activities of the NEW show that the students do a lot of work (file weekly goals), but little reflection on the content and, consequently, little learning. Logically, from the first tests, this weakness was corrected and the closing activities were developed not as exercises, but as classes in that were being discussed and resolved these questions among all the students with the help of Professor.

For its part, the Final Test results show positive conclusions about the new method in the area of competencies and the development of entrepreneurial capabilities reached by the pupils. In the first place, the average result of the students was 1.4 on 2 (70%), with 61% of students above 1 (Figure 6), which allows us to conclude that the majority of students have reached with the NEW methodology a high level in the acquisition of skills. Of all the expertise developed by the students, I would emphasize the use of informatics as something fundamental and very positive in the development of new. In accordance with the recommendations of the European Union the entrepreneur work demand the use of the basic TICs. One of the competencies to improve was to use of computers and the internet as tools for basic work to retrieve, assessing, storing, produce, to present and to exchange information and to communicate and participate in collaborative networks via the Internet (European Parliament and the Council:2006).

We can deduct from the final grades achieved by the students that those who followed the course and ended up appearing to the Final Test, 100% exceeded the subject. Only 3 students do not approved: 1 by abandonment of the course and 2 for not presenting all the weekly file. The end average mark of the students was a remarkable high (8 points) which reflects as conclusion that the NEW experience is shown as an alternative method to MDT not only by the results, but because it allows you to develop a more comprehensive system for assessing all the formative aspects of the students: the programming, performance and the development of the capabilities of the students throughout the course.

