

Kultura – Przemiany – Edukacja, t. V (2017)
<http://kpe.ur.edu.pl>

ISSN 2300-9888; ISSN online 2544-1205
DOI: 10.15584/kpe.2017.5.21

Dr. Juan Ramón Soler Santaliestra

University of Zaragoza

Dr. Rebeca Soler Costa

University of Zaragoza

A CASE STUDY FOR THE DESIGN AND DEVELOPMENT OF PEDAGOGICAL AWARENESS IN THE TEACHER TRAINING MASTER'S DEGREE: DIDACTIC STRATEGIES AND METHODOLOGY

TWORZENIE I ROZWÓJ ŚWIADOMOŚCI PEDAGOGICZNEJ PODCZAS STUDIÓW NAUCZYCIELSKICH: STRATEGIE DYDAKTYCZNE I METODOLOGIA

Abstract

Roughly speaking, the European Higher Education Area introduced substantial changes in the structure and development of new curricula. Particularly, when assuming the teaching-learning processes in the Master's Degree, special attention needs to be carried out to the students' achievements. Since 2010, the Faculty of Education in the University of Zaragoza implemented the Master in Teacher Training for High School Teachers. One of the main aims is to provide students with the necessary pedagogical knowledge, strategies and procedures to be able to develop professionally. We want to accompany in students' development, the acquisition of teaching techniques and methodologies, including methodology specific for age of youth, the teachers will be working with. This issue was showed in presented text. The authors pictured, among others, the methods, activities and objectives designed to help students achieve the learning outcomes in the Master's compulsory Module entitled "Context of the Teaching Task".

Key words: Master Degree, teaching-learning processes, learning outcomes, activities, students' achievements, evaluation.

Streszczenie

W zakresie Europejskiej Edukacji Wyższej zostały wprowadzone istotne zmiany, które wpłynęły na strukturę i rozwój nowej podstawy programowej. W szczególności w procesie kształcenia nauczycieli wyjątkową uwagę należy zwrócić na osiągnięcia studentów. Od 2010 roku Wydział Edukacji Uniwersytetu w Zaragozie wprowadził studia magisterskie dla nauczycieli szkół ponadgimnazjalnych. Główną uwagę zwrócono na zapewnienie studentom niezbędnej pedagogicznej wiedzy oraz

znajomość strategii i procedur pozwalających im na osiągnięcie profesjonalnego rozwoju. Chcemy wspomagać rozwój studentów, zdobywanie wiedzy na temat technik nauczania oraz metodologii, w tym metodologii specyficznej dla wieku młodzieży, z którą nauczyciele będą pracować. Kwestię tę przybliżono w prezentowanym tekście. Autorzy przedstawili m.in. metody, techniki i narzędzia przydatne studentom, którzy zdobywają wiedzę podczas obowiązkowych zajęć realizowanych w module zatytułowanym "Kontekst zadań nauczania".

Słowa kluczowe: studia magisterskie, proces kształcenia nauczycieli, rezultaty nauczania, techniki, osiągnięcia studentów, ewaluacja.

Background

Along the academic year 2009-2010, the Faculty of Education in the University of Zaragoza (Spain) implemented the Teacher Training Master Degree for future Secondary School Teachers. Postgraduate students develop in the first semester a set of Generic Modules and in the second semester they go deeper in Specific Modules, depending on their University Degree and specialization. Students are highly motivated and show specific desire to acquire the necessary training to be able to develop in the Secondary Education stage. In this sense, due to the fact students come from different University Degrees, the Generic Modules have the main aim of helping them to achieve a pedagogical background. However, they lack a solid understanding of the teaching-learning process, as well as of methodological principles to undertake their work as teachers. The purpose of the Masters is to provide Teachers of High School, Secondary Education, Vocational Training and Teachers of Language Teaching, of Arts and of Sports with specific teacher training mandatory in our society for the exercise of the profession in accordance with the provisions of the Act 2/2006, of 3rd of May, of Education, Royal Decree 1393/2007, Royal Decree 1834/2008, and the Order ECI 3858/2007 of 27 December¹.

The Masters is one year in duration and consists of generic and specific modules. In the generic modules students take general educational subjects, dealing with aspects such as school organisation, tutorial and guidance, mentoring processes and basic psychological principles throughout the first quarter, modules which may be given another name but whose contents refer to those mentioned. Once acquired these specific competences, students enrolled in the second semester study specific modules related to the degree with which they have accessed the Masters. They also have a *Practicum* divided into three phases, so that they can observe the operation of a Secondary School. They should write a series of papers in the period of the *Practicum* from the analysis of institutional documents, such as the School Educational Project, the School Curriculum Project, the School Coexistence Plan, etc.

¹ <http://titulaciones.unizar.es/Masters-secundaria/>

Proposal of learning outcomes for the CTT Module of the University Teacher Training Masters for High School Teachers, Secondary Education, Vocational Training and Teachers of Language Teaching, of Arts and of Sports

Students who complete a Diploma or Degree in areas not directly related to teaching lack the teacher training education needed to develop it. The work of the teacher in the stages of the education system of secondary education requires specific knowledge of the socio-educational reality in which he or she will act as a professional practitioner in the future. Therefore, students who wish to pursue teaching in the field of secondary education should know the functioning of schools in the micro-political and macro-political levels and acquire training on interpersonal relationships, the involvement of the various educational agents, the functions of counselling services and also concerning the relationships between family and school. The Module “Context of Teaching Activity” (CTT), compulsory in the University Teacher Training Masters for High School Teachers, Secondary Education, Vocational Training and Teachers of Language Teaching, of Arts and of Sports, provides specific training on the organisation and operation of schools, as well as relations with society. Given that educational institutions have an idiosyncratic culture, determined by the legislative action of the three types of educational administration (central, regional and local) future teachers must be trained in specific contents that allow them to develop their professional work.

Curricular requirements arise as a result of innovation processes that are introduced by lawmakers of education laws that competent legislative bodies approve. This makes it necessary to know the current educational guidelines to be followed in each of the stages of the education system. Similarly, the work of the future teacher requires the acquisition of skills needed to let him or her know, evaluate and analyse institutional documents that mark the performance of teachers as an educational community² (Antúnez, 1993). Consequently, the context in which this Masters takes place requires the development of specific learning outcomes in each of the modules that allow students to acquire the necessary skills. At least the following learning outcomes in the CTT module should be considered in line with the syllabus:

1. Demonstrate with concrete case analysis that the prospective teacher understands the micro-political plane relations of the education system.
2. Describe the process of socialisation and education with examples of reciprocal influences between society and education.
3. Assess formal and non-formal teaching detailing the educational and employment challenges and understand the relationship between the social and the educational systems.

² S. Antúnez, *Claves para la organización de centros escolares (Hacia una gestión participativa y autónoma)*, ICE Universidad de Barcelona-Horsori, Barcelona, 1993.

4. Manage current educational legislation with a diachronic view showing knowledge of the prior education system regulations in our country.
5. Value the culture of educational institutions as a part of the school organization paradigms (macro-level aspect) through the critical analysis of institutional documents (the School Educational Project, social climate, the Stage Curriculum Project, Internal Regulations, Annual Plan, Annual Report).
6. Develop the Tutorial Action Plan showing understanding of basic skills, planning and management of the evaluation sessions, the intervention of the Educational Orientation Team and of psychologists and vertical and horizontal coordination, and *staff*.

The achievement of these learning outcomes requires the definition of generic and specific goals and objectives³. Regarding the former, it should be noted that this Module of the University Teacher Training Masters for High School Teachers, Secondary Education, Vocational Training and Teachers of Language Teaching, of Arts and of Sports, mandatory for all students, is oriented for university graduates who wish to develop the teaching profession in Secondary Education. So the objective is to receive specific training under the current legislative and institutional framework from the study of the historical evolution of the Spanish education system. In this sense, the ultimate goal is for students to acquire specific training on the educational context in which they will develop their teaching.

Since this Master is addressed for future teachers of both the stage of compulsory secondary education and also non-compulsory secondary education, students acquire knowledge of the functioning of the school, the teaching-learning processes and relationships that are generated in them (paradigms, relationships between the various educational agents, role of the family, training and functions of the management team, intervention of counsellors, etc). It becomes essential that students get to know and become familiar with the context in which they will develop their teaching and the relationships established in the different educational institutions⁴. They will also acquire specific knowledge about the intervention, roles and relationships with the family depending on the educational stage in question. The completion of this module will allow the students to be acquainted with the relationship between the teaching profession, the school, the family and society through the study of specific competences and sub-competences, functions, levels of organisation, curriculum requirements, projects and activities. Furthermore, a set of specific objectives must be established in line with the educational program, such as the following:

1. Analyse legislative developments from the Act of Education (1970) up to the current Act 2/2006, of 3rd of May, of Education.

³ St.J. Ball, *La micropolítica de la escuela (Hacia una teoría de la organización escolar)*, Paidós-MEC, Barcelona, 1989.

⁴ MW. Apple, *Educación y poder*, Paidós-MEC, Barcelona, 1987.

2. Assess the changes produced in the educational system from the introduction of basic skills in the early stages of compulsory school of the educational system.
3. Understand the links between the social and educational systems by analysing the relationship between the family and the school.
4. Interpret the relationship between the school, the family and the community to develop the teaching profession from an integrated perspective.
5. Differentiate between the micro-level and the macro-level aspects in educational institutions.
6. Identify the social, economic and cultural schools through institutional documents and environmental resources.

The learning outcomes that students acquire at the end of this module are important because they help them learn the inner workings of the school as an educational institution. If the students have acquired specific contents related to training and guidance, technology and tourism, but do not know how a school works, they cannot adequately develop their teaching⁵. The analysis of the paradigms of school organization will allow the students to know the micro- and macro-level aspects of educational institutions, thus providing them with training about decisions, the lobbies, the concept of school institution, how assessment processes are conceived, etc. Since the role of the family is important in the teaching-learning process, the students may interpret the necessary collaborative relationship to be established with the family, the socialisation of the students and the reciprocal influences in the socio-educational field.

Innovation processes that education is undergoing in the present twenty-first century introduce constant challenges in the education system⁶.

Students will learn current trends in education and will consider the need for training in certain lines of action for education legislation through the culture emerging in educational institutions. Therefore, the students will become competent in the knowledge of the structure of schools, their operation and organisational levels⁷. Students will acquire specific knowledge related to current legislation through the diachronic study of the evolution of the educational laws from 1970 to the present. This will allow them to assess the training needs identified by the sociological and technological development and introduce processes of improvement in their teaching performance.

Moreover, the guidelines of the Educational Administration make it necessary that students know the main priorities and lines of action in the school included in institutional documents. They will therefore be more competent in the knowledge

⁵ MW. Apple & J.A. Beane, *Escuelas democráticas*, Morata, Madrid, 1997.

⁶ M.J. Hatch, *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*, Oxford University Press, Oxford, 1997.

⁷ Q. Martín-Moreno, *Desarrollo organizativo de los centros educativos basado en la comunidad*, Sanz y Torres, Madrid, 1996.

and assessment of current trends in the educational system. The introduction of skills in the different teachings of the period of Secondary Education (compulsory and post-compulsory) requires specific teaching strategies and methodologies. The students will acquire these strategies and methodological principles after the analysis of specific cases (disruptive behaviour). After finishing this module, the students will be able to assess the importance of the relationship between the family and educational institutions as part of a comprehensive education, directed to insert occupationally the student into society.

Methodological principles designed to promote meaningful learning

Module 1 CTT of the Teacher Training Masters for High School Teachers seeks, as one of its aims, to provide students with teacher training needed to perform their professional practice. Therefore, it is necessary to start with the theoretical and practical knowledge of the main teaching paradigms⁸ and offer students an overview of the organisational structure of the education system, where the reference document required in this regard is the current education legislation (Act 2/2006 of 3rd of May of Education). The acquisition of theoretical principles needed to develop adequate practice will make it possible to gradually introduce the methodological principles.

Regarding the methodology, this module should promote the active participation of the students, who are the main protagonists of their own learning, a fact which appeals to their intense cognitive activity, always facilitated by the logic gradation of the complexity of planned activities. The adjustment of the educational process to the level of the students' cognitive competence is required, with particular attention to the area of potential development in terms of Vygotsky. With such an aim in mind, the meaningful learning of students will be developed, based on their level of prior knowledge and thereafter introducing the necessary fundamentals of psychology. The student must know how educational institutions work, and also the norms and standards set by the educational legislation in shaping the macro-and micro-political level. To acquire the psycho-educational foundation needed, the individualization of teaching-learning will be weighted from the implementation of Ausubelian theories. The acquisition of *learning to learn*, of lifelong learning and of meaningful learning will stem from the diversification of teaching-learning situations as a methodological principle that is, at the same time, an organisational criterion.

The management of activities will depart from lectures, accompanied by workshops where implementation in groups composed of free designation of school organization

⁸ M. Fernández & E. Terrén, *Repensando la organización escolar. Crisis de legitimidad y nuevos desarrollos*, Akal, Madrid, 2008.

paradigms (positivist, interpretive and critical-symbolic) will prevail. Students will undertake practical work in groups which will subsequently be exposed to the rest of the class group. The practical part of the module will be supplemented by tutoring and individualized work through student participation in forums on the platform “Moodle”. To proceed with the development of teaching in this module, the teacher will start with an expository method of specific contents that will form the psycho-pedagogic foundation to be acquired. This will be followed by a single case study where students actively participate in the formation of a theoretical framework together with a brief quantitative research. Due to pedagogical limitations of the students of this Master, it is not yet possible to introduce qualitative methods for data analysis.

The acquisition of the psycho-pedagogic fundamentals affecting this module will be based on problem-solving and practical exercises (both in group and individually). However, this training is supplemented by problem-based learning. Students must resolve cases the teacher puts forward (e.g. how to act in a Secondary School to psycho-pedagogically intervene in cases of disruptive behaviour of students) with a proper implementation of the theoretical contents of the module together with a proposal that includes psycho-educational intervention to develop methodological principles in the classroom. The student must encourage the development of a comprehensive and interdisciplinary approach.

Cooperative learning will be a key methodological principle that will enable students to acquire an active role in the development of teaching-learning situations and will also encourage their interaction with peers from very different degrees. The grouping of students is an important criterion when selecting the methodological principles. Depending on the objectives of the various activities, students can form homogeneous groups in terms of their level of cognitive competence for case studies. At other times, students will form heterogeneous groups where skill and / or experience of some students over others will prevail, always understood from the constructivist perspective. Finally, the students’ grouping, given the evolutionary period of their development⁹ may also be freely undertaken.

Students may form flexible groups, small groups (3-6 students) to develop activities. Similarly, the role of the student in the teaching-learning process will be active on the individual level, thus encouraging activities aimed at the diversity of professional interests (Vocational Training students can solve cases particularly related to their Training cycles, students of degrees such as Engineering, Philology, Economics, etc. will participate in activities close to the socio-educational reality in which they will later intervene). For learning to be meaningful to the student, as well as to take into account their level of prior knowledge with an initial assessment, the implementation of teaching methods mentioned through learning experiences and activities based on the development of their first *Practicum* in this Masters will be included.

⁹ J.Piaget, *The psychology of the child*, Basic Books, New York, 1972.

The principles of the learning experience of the students will take account of the introduction of grading activities close to their reality and heading toward more distant aspects, starting with what is known to them and heading for what is unknown for them, establishing affordable basics and tending towards the complex (paradigms of school organisation, for example).

The role of the student in the principles assumed by both the methodological principle of cooperative learning and by constructivism is based on the approach to student learning on the basis of his level of development, thus ensuring the usefulness of learning. Therefore, the methodology that develops the psycho-pedagogical foundations of this Masters will also enhance students' interactivity in the learning process, where the teacher will guide the learning process.

Catalogue of learning activities to be included in the teaching guide for CTT

Teaching activities developed by the teacher will focus on the practice of learning outcomes. Throughout the first semester (1) the following teaching and learning activities will be undertaken, spreading over 10 weeks of teaching in the Module n. 1, with four attendance teaching hours per week.

WEEK 1: Learning Outcome 1: Demonstrate with concrete case analysis that the student understands the micro-political relations of the educational system.

TEACHER EDUCATION ACTIVITY: First, he will proceed with an analysis of specific cases involving externalizing the concepts of the macro-political and the micro-political level. To do this, Teacher A will show a video on "The school organisation in educational institutions", downloaded from the website of the UNED. Then, the conceptual items referred to in that video will be discussed with real examples. The teacher will generate a *brainstorming* on the board with the interaction of students discussing the basic ideas of these two concepts.

STUDENTS' LEARNING ACTIVITY: This will consist of conducting a practical group activity where, in groups of fours, students must complete a painting. They will be provided with a DIN A-3 sheet containing a table with items on the front lines and the micro-political and macro-political planes in the following columns. Students will pay attention to the relationship and similarities of some items and should be able to differentiate the items proposed to them by using the materials that the teacher has previously uploaded in "moodle".

WEEKS 2 AND 3: Learning Outcome 2: Describe the process of socialisation and education with examples of reciprocal influences between society and education.

TEACHER EDUCATION ACTIVITY: The teacher will show links to web pages that collect socialisation processes in students of Secondary Education, indicating the importance of the students to socialise and develop their skills in this period

of compulsory schooling. In this activity, two documents to be explained in the classroom by the teacher, developing the influences between society and education will be added as bibliographic reference.

STUDENTS' LEARNING ACTIVITY: Students will develop three activities that promote socialisation and show their necessity in today's society. To do this, they will work in pairs and must upload their final product to the "Moodle" platform so that the rest of the team members can read and add suggestions. The teacher will review and provide students with *feedback* so that they have enough information at the time of completing the activity. One classroom session will be devoted to discussing with all the class group the activities designed by the different groups, their viability in secondary classrooms and the necessary interaction between society and education.

WEEK 4: Learning Outcome 3: Evaluate both formal and non-formal ways of teaching, detailing educational and employment challenges and understanding the relationship between society and the educational system.

TEACHER EDUCATION ACTIVITY: The teacher will project a *PowerPoint* presentation explaining the current educational challenges. To do so, he or she will refer to the current educational legislation (Act 2/2006, of 3rd of May of Education) and will relate the objectives of the Act with the facilitation of student employment. An interview with a student of 4th of ESO will be screened, in which his or her situation will be analyzed, comparing the choice of educational routes and assessing the interaction with the appropriate professionals (counsellors).

STUDENTS' LEARNING ACTIVITY: The student will participate in a weekly forum through a space provided for Module 1 "Context of Teaching Activity". The teacher will put forward a question that students must respond to by consulting the documents previously worked upon in lectures. The questions will refer to contents developed in the module and will involve the implementation of the content acquired by the student. For example, students must answer the question "How is the education system in the stage of secondary education organised?" To do so, the student will refer to the current educational legislation (Act 2/2006, of 3rd of May, of Education). Students will respond taking into consideration Grice's maxims, and may consult the UNESCO documents to extend their contribution. The teacher will take into account the quality and quantity of students' participation through the evaluation of this activity with a rubric.

WEEK 5 AND 6: Learning Outcome 4: Manage current educational legislation with a diachronic view showing prior knowledge of rules of the educational system in our country.

TEACHER EDUCATION ACTIVITY: The teacher will project on the board a list of questions about conditions of schooling, educational community involvement, participation of parents of students in decision-making processes, years spent by a student, school board functions, features of the management team, and criteria for

the organisation of the school. Then he or she will explain the developments in these areas in each of the education laws since the Education Act (1970) to the current Act 2/2006 of 3rd of May, of Education. He or she will also provide a diachronic view of education legislation that will allow students to deepen into the teaching of current legislation. To do this, he or she will show students a Word document which contains the new concepts that have entered the Act. This will allow him or her to explain the most significant changes operated in those measures of attention to diversity and the educational and vocational guidance. He or she will insist upon the fact that professional education cannot just stay within the LOE and the Organic Regulations, because the law does not specify, there are areas that the law does not focus upon, and with technological scientific knowledge, the guidelines for action in schools, organisational models, solutions regarding spaces ... can be implemented, areas where the legislation does not require anything, or does not address them.

STUDENTS' LEARNING ACTIVITY: Students must answer a questionnaire with objective questions on education guidelines established by the current legislation. Once done, students will form groups of four and measures should be designed for diversity for a case that the teacher will propose. Groups where, for example, there is an immigrant student, must design a model of language immersion program showing knowledge on measures to such pupils with special educational needs (ACNEAE) established by current legislation. Each group of students will present on the board for the rest of the class the measures proposed to meet the individual educational needs of the individual student. Moreover, once the pattern of performance has been presented, students should prepare a brief section of foundation on legislation to develop the educational provisions of the Statutes for Secondary Education, what steps can be taken, which may have caseloads, etc. This will allow them to complete the training related to educational laws provided by the teacher and will contrast it with the understanding that their peers have reached.

WEEK 7 and 8: Learning Outcome 5: Assess the culture of educational institutions as a part of school organisation paradigms (macro-political level) through the critical analysis of institutional documents (school policy, social climate, Stage Curriculum Project, Internal Regulations, Annual Plan, Annual Report). Manage current educational legislation with a diachronic view showing prior knowledge of rules of the educational system in our country.

TEACHER EDUCATION ACTIVITY: The teacher will explain what an educational project is, which information it collects and why it is important to know this institutional document. This will enable students to understand that the macro-political level affects all schools alike but it is the micro-political level that provides the differences. The next session will show three educational projects of secondary schools in the city of Zaragoza in which students will appreciate the exposure of values, trends and beliefs in Education that are manifested in these schools. The teacher will show a curricular project stage of an institute in which

the organisation of teaching in each of the courses or academic years of the stage of secondary school is presented. Students will have the opportunity to read a real document. Similarly, the teacher will show students internal regulations so they can see the type of sanctions that the school responsible for conducting research stipulates, and which will propose punishment for the final decision for the School Board. These documents allow the teacher to analyse the most representative differences from previous education legislation.

STUDENTS' LEARNING ACTIVITY: Students will freely form groups of five persons and will select one of the official documents presented by the teacher. They must then extract the relevant data and explain them to the group-class, proposing for this, if necessary (as in the Internal Regulations) corrective measures. They will also upload the relevant information in "moodle" to be part of the process of the development of the portfolio to be delivered the day of the exam.

WEEK 9 and 10: Learning Outcome 6: Develop a Tutorial Action Plan showing understanding of basic skills, planning and management of the evaluation sessions, intervention of the team of educational psychologists, vertical and horizontal coordination, and staff.

TEACHER EDUCATION ACTIVITY: The teacher will show a Tutorial Action Plan and guidelines established by the education authority for its processing. With these instructions the teacher will project an educational intervention in an institute of secondary education which will analyse with students the importance of this document. Also, the teacher will develop and upload on "Moodle" some instructions on the sections that a Tutorial Action Plan must have, together with the sample document.

STUDENTS' LEARNING ACTIVITY: Students will develop one of the sections of the Tutorial Action Plan. The intention is that each group of students, as far as possible, selects a different section, so that when all students have completed the work, the final product is a genuine Tutorial Action Plan that will be uploaded to "moodle", so that it can be analysed by the whole class group. The development of these activities will require a series of educational materials. The videos, documentaries and reports will be obtained from the website of the Spanish Open University [UNED], in particular its educational channel. The reference PowerPoint to the theoretical contents and the space in "google docs" should be accessible by loading the names of the students.

Since the European Higher Education Area promotes the use of platforms and virtual teaching and learning, in this module the student will enter a space in "moodle unizar"¹⁰ where they can actively participate in 10 forums raised throughout the all weeks of class. This type of virtual environment will allow students to post their own work to be seen by other students, and make suggestions to the work

¹⁰ <https://moodle.unizar.es/course/view.php?id=1615>

of their peers. On the “moodle” site students also have access to several pdf files and list of the skills worked upon on this module. Moreover, teaching resources must also contain the reading and internalisation of a series of references, some mandatory and other optional.

Bibliography

- Antúnez S., *Claves para la organización de centros escolares (Hacia una gestión participativa y autónoma)*, ICE Universidad de Barcelona-Horsori, Barcelona, 1993.
- Apple MW. & Beane J.A., *Escuelas democráticas*, Morata, Madrid, 1997.
- Apple MW., *Educación y poder*, Paidós-MEC, Barcelona, 1987.
- Ball St.J., *La micropolítica de la escuela (Hacia una teoría de la organización escolar)*, Paidós-MEC, Barcelona, 1989.
- Fernández M. & Terrén E., *Repensando la organización escolar. Crisis de legitimidad y nuevos desarrollos*, Akal, Madrid, 2008.
- Hatch M.J., *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*, Oxford University Press, Oxford, 1997.
- Martín-Moreno Q., *Desarrollo organizativo de los centros educativos basado en la comunidad*, Sanz y Torres, Madrid, 1996.
- Piaget J., *The psychology of the child*, Basic Books, New York, 1972.
- Universidad de Zaragoza, Titulaciones, <http://titulaciones.unizar.es/Masters-secundaria/>