

THE VIAS VERDES: SCENARIO TO WORK THE RURAL ENVIRONMENT IN PRIMARY EDUCATION

José Antonio López Fernández; Alfonso Javier Peral Velasco

1. INTRODUCTION

The rural environment constitutes a diverse and heterogeneous geographic space with a lot of elements and characteristic factors, that give rise to a great landscapes' variety (Gómez, 1992, 1996; Tort, 2004; Mínguez, 2010). This complexity is often difficult to assimilate in the academic world, but it supposes an educational opportunity (Casas and Erneta, 2015; Marrón, 1990; Licerias, 1992) although the rural world receives a scarcely attention in the Primary and Secondary Education curriculums'; on the contrary that the urban environment, more presence in the formative contents.

One possibility to tackle the rural areas could be the use as a didactic resource, of the current *Vías Verdes* (Baltanás et al, 2008); ancient railways reconverted into paths to take a walk, riding or cycling for the enjoyment of walkers or hikers. Nowadays, these infrastructures offer an interesting leisure service, but they can also be used with an educational function. Other departments as Physical Education are a clear example of this use (Hernández, 2008), especially in the Secondary stage. However, other aspects allied to Social or Natural Sciences can be considered from early ages. In Spain there are 120 itineraries classified as *vías verdes*, which show a great diversity of landscapes. These resources can be used as teaching axes to deal with numerous curricular elements (García de la Vega, 2004).

In this way, we consider that the current *Vías Verdes* constitute a favorable scenario to program and carry out activities to improve the knowledge of the environment. Could exist an infrastructure of this type relatively close of many educational centers. In any case, this suppose a great opportunity to implement the teaching-learning process, determinate the development of capacities (including the spatial competences) and favor the assimilation of numerous curricular achievements.

2. OBJECTIVES AND METHODOLOGY

The general objective of this work is to transmit knowledge of the rural environment through a didactic proposal as a resource to the Primary Education teachers to work actively with the students (without being just observers). This resource would be an itinerary through the *Vía Verde* in the *Campiña of Cordoba*, where the students have a direct participation in the phases of preparation, development and evaluation. Although this work is oriented to students in the third cycle of Primary Education, these roads are susceptible to be considered within any educational stage, due to its interesting peculiarities. However, these activities have been executed in other areas as Physical Education and also from the non-formal sphere, but not as a geographical medium or resource.

The overall objective has other more specifics, for example put into practice typical procedures of geographical work as the observation and location of geographic events, analyze spatial aspects (crop distribution, land use, infrastructures, population, etc.), distinguish landscape units, their different elements and identify relationships and processes (García, 1997). Develop interdisciplinary skills and abilities related to historical aspects about the evolution of the railway in Spain and its vertebral function of the territory; the observation of the environmental consequences of human actions on the landscape, and how they disturb biological processes, etc. Become aware of the heritage value of *vías verdes* and the complementary constructions; develop a critical sense of conservation and maintenance, and promote healthy lifestyle habits.

These achievements are focused on encouraging habits and behaviors towards the collaborative and cooperative work between schoolmates, creating scenarios to foment the intercultural sociability and among genders. For the development of these aspects, it is essential to situate the students in the center of learning, and to leave aside the classic postulates of unidirectional (teacher to student) communication; a way in which the theory is combined with practice to get an integrative context based on the experiences of children. Give to the students the possibility to build their own knowledge through their experiences and direct contact with the environment; in order to contribute to the achievement of the final objectives of Primary Education.

The planning of the itinerary is configured through three phases of work (García de la Vega, 2004): A *preparatory phase*, which begins with the evaluation of the students' previous knowledge about the aspects to be dealt with, followed by a search and selection of information with management of resources that today offer Information and Communication Technologies (ICT) among others. The *itinerary* (in the strict sense), designed so that the students can discover the spatial aspects and make significant the concepts seen in class, as well as implement the skills of the field work; and a *phase of evaluation and consolidation* of geographical facts in particular, and interdisciplinary in

general, to cause the construction of knowledge by students. It is recommended a group organization and specify the objectives of each phase: search for information, resources, learning tools, etc., and guide to the students to participate in the construction of their own learning (learn to learn).

3. THE RURAL ENVIRONMENT IN THE CURRENT LEGISLATION OF PRIMARY EDUCATION. ANDALUSIAN REFERENCES

According to Royal Decree 126/2014 which establishes the curriculum of Primary Education, and that attends to the development of LOMCE, the spatial aspects are worked mainly from the area of Social Sciences. According to the new legislative framework, the area of Social Sciences is divided into four blocks of content, where the space receives special treatment in sections 2 (the world we live in) and 3 (living in society). However, block 4 (the traces of time) can also integrate many spatial aspects, because all historical events were based on a certain place (their cause and effect factors, change and permanence, spatial-temporal orientation, etc.).

However, issues related to the rural environment scarcely appear except for the rural exodus, so it is necessary to go to other characteristics and activities of this area (agriculture, cattle industry, reduced population, old industrial activities or new tourist uses and leisure, among others) to integrate the concept into the teaching process.

Greater attention is given to curriculum development in some autonomic regions such as in Andalusia. Through the Order of March 17th, 2015, which develops the curriculum corresponding to Primary Education in Andalusia, according to the principles of LOMCE, in the area of Social Sciences, to deal with different blocks of content, as well as well as for the methodological orientations, it is recommended to develop projects that address the formulation of problems of progressive complexity, from descriptive approaches to problems that demand analysis and global assessments.” It is also indicated that “For this type of work, you must have data from different sources of information: systematized data from various institutions, press and specialized literature on the topic. This can be complemented by visits and itineraries appropriate to the didactic approach adopted “. These legislative indications could have a good development through the type of itinerary proposed here, connected with a generic content such as the Andalusian landscapes.

According to the guidelines established by current legislation, as well as the cognitive maturation and the evolution of students, the third cycle of Primary Education can be considered a great time to bring students to direct contact with the rural environment, since they enter the stage called by Piaget of the *space conceived*, where they are presupposed a more objective and analytical capacity (Piaget, 1975). This is not an easy task according to the description of Licerias (2000, 77), in this cognitive process

of the learner we can find several influences: on the one hand, the psycho-evolutionary development of the individual; On the other, the activities and their interactions with the environment, helping to the wealth and the development of the first requirement. A feedback that, in many cases, does not take place due to the low contact that many students have with the environment, used to make all the activities in their formal education inside the classroom.

According to the active methodology and the importance of a close and experiential approach to the geographical and spatial aspects, García and Licerias (1984, 38) already proposed an action based on constructivism “and everything that derives from this theory”. Based on some of the characteristics pointed out by Carretero et al (1989), these authors affirm that the environment offers us the best conditions to develop a meaningful learning, due to its proximity and personal relationship, because the aspects to be studied offer a higher motivation to the student, make easier the process to get the correct acquisition of concepts, offer the greatest wealth of resources and promote an inclusive education (García and Licerias, 1984, 39).

4. THE *VÍAS VERDES* AND THE RURAL ENVIRONMENT

The *Vías Verdes*, among many other services, are a formidable infrastructure to plan and carry out didactic itineraries with a high interdisciplinary character, where students can work with numerous curricular elements. These routes correspond to old railway lines without use currently, which have been converted into rural roads. Their characteristics make them roads to enjoy a great heterogeneity of landscapes, in fantastic environmental corridors, geographical and historical.

They have been managed since 1993 under a program coordinated by the Spanish Railways Foundation. Since that year, these old railway connections suffer a process of reconversion, to be used by walkers, cyclists and even people with reduced mobility. By autonomic communities, according to the website *viasverdes.com*, dependent of the Spanish Railways Foundation, stand out Andalusia with 28 routes, followed of the Basque Country with 12 and the Valencian Community with 11. After this group that surpasses the ten of these old railways, Asturias with 9, Castile and Leon with 8 and Castile-La Mancha and Catalonia, both with 7.

Without going into the state of each of the existing routes in Spain (where there are more than 2,500 kilometers), stand out their environmental, patrimonial, landscape and social value. In the words of Hernández (2008) “Luxury itineraries to enjoy an unusual nature and our valuable cultural heritage, with routes for all tastes. There are *Vías Verdes* that cross protected natural spaces, such as the *Vía Verde of the Subbética* (Córdoba) or the *North Mountain Range of Sevilla* and *Vías Verdes* that enter us in splendid beeches

like the *Vía Verde of Plazaola* (Navarra) and in the badlands of the *Northwest Vía Verde* (Murcia). Others approach us to the same *site of Atapuerca* (located in the trench of an old miner railway) or towards a lot of monumental towns such as *Santo Domingo de la Calzada, Ripoll, Olvera* and *Guadalupe*.

There are few studies where the *Vías Verdes* are proposed as didactic resources. In some educational centers, only the Physical Education departments take advantage of this type of infrastructures to carry out activities outside the center, on foot or by bicycle. Likewise, there are numerous private companies in the field of non-formal education, which offer outdoor activities in the environs of these routes. There are didactic books about the *Vía Verde of the Subbética*, with information concerning to the towns, its main characteristics and attractive heritage, as well as three proposal routes to be made along the route, but without any methodology or curricular adaptation by areas, subjects or educational courses. The Hernández publication (2008) talks about a didactic guide on the *Vía Verde of the Sierra*, located between the provinces of Cadiz and Seville, as a result of a collaboration agreement signed between the provincial governments of Seville and Cadiz and the *Vía Verde of the Sierra Foundation* (with the help of the *Education Ministry of the Junta de Andalucía* and *Ecologists in Action*). The didactic guide includes a manual of orientations and ideas for teachers with comprehensive education character, interdisciplinary and transversal nature, recommendations on how to design routes through the *Vías Verdes*, as well as teaching and learning proposals.

4.1. The Vía Verde of the Campiña

One of these routes is the *Vía Verde of the Campiña*, which runs between the provinces of Cordoba and Seville. With 84.52 km, it is an itinerary that connects the old *Valchillón* station, to the Southwest of the city of Córdoba, to the Sevillian town of *Marchena*, and crosses the municipalities of *Guadalcazar, La Rambla, La Carlota, Écija, Fuente Palmera, La Luisiana* and *Fuentes de Andalucía* (although the stretch between *Écija* and *Marchena* is not available).

The *Vía Verde of the Campiña* give to the traveler along its route, a great landscapes diversity, geographical and patrimonial elements like *Castle of Almodóvar*, located in a natural elevated area to the right of the Guadalquivir river. The continuous view of the *Northern Campiña*, inhabited and historically exploited space, in which are located many of the towns and cities that were linked through this railway axis.

From the didactic and the geographical knowledge point of view, in the itinerary we can see three different units of landscape. Inscribed in the route of the *Vía Verde* and towards the south, appears the *Campiña*, formed by small undulations of low gradient and with predominance of loam and clay materials, where there are crops exploitations

mainly rainfed lands, although also some examples are observed with new irrigation systems. To the north, we can find *the bank of the Guadalquivir river*; nevertheless, also we find other areas formed by more tributaries as *Guadajoz river*. Finally, further north, we can see the South face of *Sierra Morena*, which is mountain set that precedes to the *Meseta*.

Our proposal, for students who are between 11 and 12 years, contemplates a section of short route. Our itinerary would start at the *Valchillón station (Guadalcazar village)*, beginning of the road and relatively comfortable place to arrive by bus and near from Córdoba. In this sense, it is necessary to make an analysis of the traditional silo that has been used for save the grain, and whose location corresponds to the good connectivity in train with the rest of the territory; the reason why of the height of this great construction; and the presence of these elements in many towns and cities that have traditionally lived by agriculture.

The route would reach the third kilometer point, where we can turn around and come back our own steps. Our planning proposes the realization of two breaks of work: one at the beginning of the itinerary, where you can remember the objectives, the characteristics of the activity and what we are going to ask the students; because during the route they must observe and work as a team to respond to the given questions, ask doubts and interact with other classmates, but always guided by the tutor. And a second stop, in the break area of the road of to *Cortijo de la Reina* (2.1 km of route), place that could serve to resume the issues fixed, as well as to recover to all students. Another point of interest is the intersection of the road with the fluvial corridor of *Guadajoz river*, where we can observe a lot of natural aspects.

4.2. Programming work phases

- BEFORE: The actions to prepare the itinerary in the *Vía Verde* begins with previous actions in the classroom, with a minimum of one week earlier. Students' knowledge of these questions must be checked; if they have ever circulated on a *Vía Verde*, what they have observed and what were these routes in the past, etc. We must pay attention to the curricular aspects to work: types of landscapes, main activities, flora and fauna, traffic regulations and the joint action with other areas (Natural Sciences, Physical Education, etc.).

It is the period to organize the work groups, to carry out the search of information in reference to what is going to work outside the classroom. The main resources to be used may be ICT and specific geographic technologies.

- DURING: the approach during the route, a fundamental activity in the field of Geography, seeks an active methodology for students to be the protagonists. To do this,

they will have a practical work guide made in classroom the previous days, where the teachers ask to students questions to observe, locate, analyze and interpret different aspects. Likewise, students could be descriptions about landscapes, about the special building (silo) for save the grain, as well as a drawing or sketch of it.

– AFTER. As a starting point for the evaluation phase, a small joint assembly can be proposed, so that each group of students, or individually, exhibit personal experiences, doubts or opinions. Once this is done, they can do small activities to facilitate the assimilation of the observed facts, as well as other tasks to improve the capacities and competences of observation, analysis, relation and interpretation (for example, with other examples of the Spanish environment, other landscapes, etc.). With a more playful character, children can make painting or drawing of element seen at the exit. As mentioned previously, it may be interesting to present small research projects to investigate other *Vías Verdes* or another questions about the close rural environment with the material used in the previous phase. Finally, it is advisable to re-check what aspects have been assimilated by the students, through a questionnaire of data collection or proposing evidences the understanding of the contents worked, in relation to the learning standards.

5. CONCLUSIONS

The *Vías Verdes* are distributed by almost all the Spanish provinces, due to their geographical peculiarities and their remodeling, are excellent resources to propose an active and interdisciplinary methodology outside the classroom. We can suggest work dynamics that favor the integral participation of the group-class within the educational process.

The geographical and historical aspects, typical of these old railway lines, present a favorable scenario for the Social Sciences in general and Geography in particular. Over the territory can be observed multitude of spatial facts, as well as put into practice the own competences of geographical knowledge: observe, locate, identify, relate and orient yourself. Besides, it also allows an interesting interdisciplinary work in relation to the natural aspects, to make contact with the environment and the implementation of sports and healthy habits through an exit to the field.