

Analysis of the previous knowledge of Geography of the students of the Degree in Primary of the University of La Rioja (Spain)

NURIA ESTHER PASCUAL BELLIDO

Department of Human Sciences

University of La Rioja

Calle Luis de Ulloa 2

26004 Logroño, SPAIN

nuria-esther.pascual@unirioja.es

JACINTO GARRIDO VELARDE

Department of Human Sciences

University of La Rioja

Calle Luis de Ulloa 2

26004 Logroño, SPAIN

jgvelarde@unex.es // jgarridoif@gmail.com

Abstract: The learning of Geography is complex, even in the university environment and, when it comes to its specific didactic, the students lack the necessary prior knowledge for their correct learning and transmission. To develop the present study, we based on the responses of the 107 students surveyed in the 3rd year of the Degree in Primary Education who study at the University of La Rioja. The objective is to know what knowledge they remember about Geography in its stage of formation previous to the studies of university degree, since these students will be the future teachers who impart in the schools the knowledge of Geography acquired in their formation as teachers. It is alarming to verify after the analysis of the results that among the university students the learning of the geographical space continues constituting a goal without reaching, even at a regional scale. For this reason, there is a need to reinforce the training of future teachers by focusing on innovation and the use of more effective methodologies that prevail, especially practice.

Key-Words: Didactics, Geography, Survey, Degree in Primary, La Rioja, Primary Degree

1 Introduction

Learning of Social Sciences is essential for the formation of future teachers in Primary and Secondary School. But, despite being a long-standing subject, in which innovative methodologies have been researched and applied, especially in the last decades, in scientific production there is still an important imbalance between History and Geography. It would not be fair to stop recognizing the effort made by Geography teachers to advance their academic education and overcome these differences. In fact, in recent years the presentation of works both theoretical and practical, in scientific meetings and in specialized journals of teaching has increased considerably¹. However, it is no less true that the results are still disappointing. You cannot continue to brand the Geography of being encyclopedic, rote, boring and useless. The New Geographies offer a current and a real vision of the world in the 21st century, from its beginnings as a descriptive science and with important contents in the correct understanding of current societies. In addition, in a few years the supply of resources and tools has multiplied through the Information and Communication Technologies and the Learning and Knowledge Technologies that have opened an infinite world to teachers and students of experimentation to improve the teaching-learning process. But the participation and involvement of teachers who teach geography subjects, or collaborative work between universities and secondary schools has not yielded the expected results to overcome learning difficulties. Some specialists continue to detect problems in teacher training, especially in the Primary Degree (Sureda, 2014). The curricula do not help too much because, in some cases, the supply of subjects is scarce and, in others, it is so disparate that it is not easy to deepen in the didactic contents of Social Sciences and, especially, in Geography. In this way, graduates continue to carry a significant burden in their training in specific didactics that, in general, have not had a relevant space in their initial training (the workload is far below what it should be to

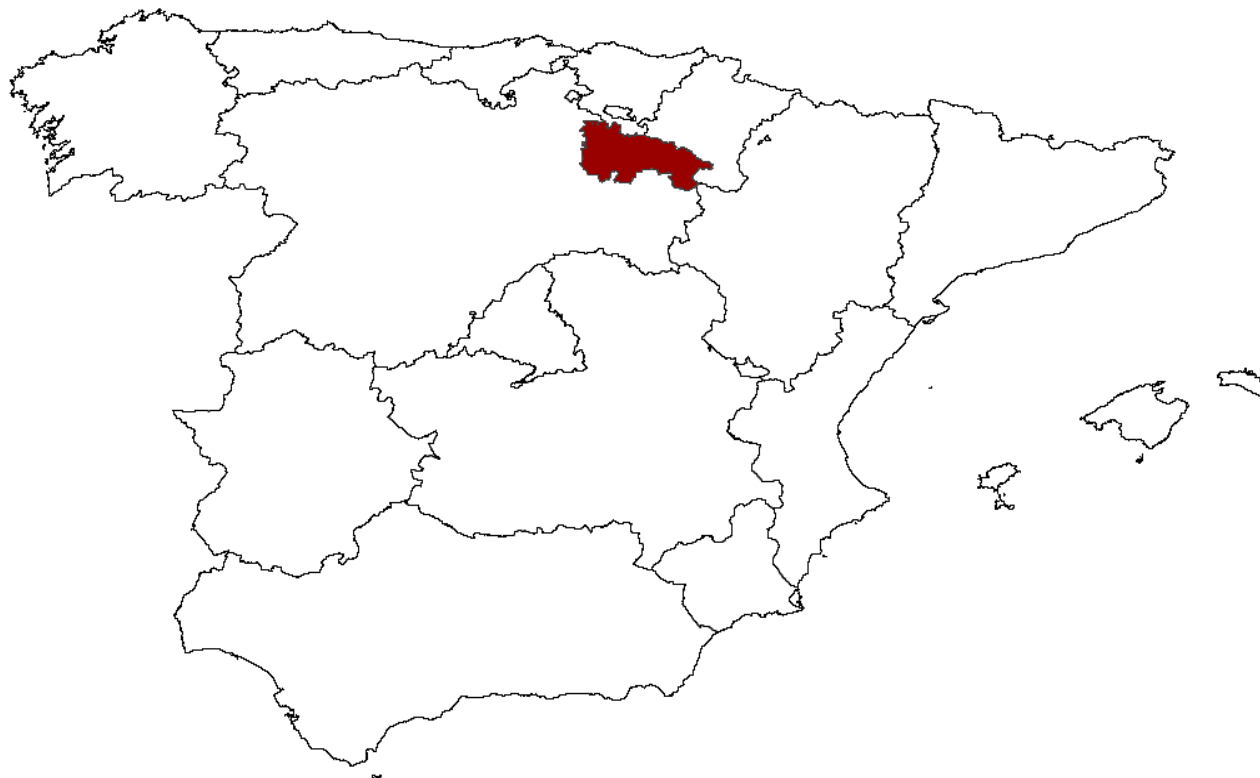
address in greater depth and correct problems related to the teaching-learning process). In the case of Social Sciences, the problem is added that the contents are cultural, social and historical constructions, that is, that they have a strong subjective load. Therefore, the political color of educational legislation, marks the curriculum and complicates the task of teachers in the transmission of knowledge. As some authors point out, there is no strong pillar that supports the construction of a pedagogical and didactic project suitable for the training of primary teachers of the 21st century. (Jara and Funes, 2017).

The Plan of Studies of the Degree in Primary at the University of La Rioja (UR) has a total of 240 credits, distributed among the Basic Module of 60, and the Teaching Module of 107'5 credits, of which 12 of them are compulsory and correspond to the subject of Teaching and learning of the Social Sciences. During the third year, the subjects of Didactics of the Social Sciences: History and Didactics of the Social Sciences: Geography is taught. In addition, there are optional subjects of the itinerary corresponding to the Profile of Curricular Intensification (22.5 credits). The subject is Educational Innovation in Social Sciences Didactics (4'5 credits) and is included in the subject Teaching and Learning of Social Sciences. Up to third, students do not receive specific training in the subject. When faced with the didactics of Geography, they encounter an added difficulty: it is very complicated to teach to teach a subject from which they vaguely remember some of the most fundamental contents.

In fact, there is an atmosphere of concern about the training of teachers in Spain (Sureda, 2014; Socas, 2011; Nortes and Nortes, 2014; Binimelis and Ordinas, 2016). The minimum knowledge questionnaire is a tool to evaluate if the students of the 3rd year of the Degree in Primary of the University of La Rioja, have an adequate level of knowledge.

For this reason this study highlights the need to resolve this situation, so it is essential to analyze the results of the survey to clearly establish their shortcomings and try, within the subjects of the degree, to provide the knowledge, methodologies and strategies of appropriate teaching for future teachers.

¹ It is worth mentioning, among them, the congresses of the Association of Spanish Geographers, those of the University Association of Teaching Social Science Didactics, or the contributions of specialists in the *Íber* journals. *Didactics of the Social Sciences*, *Scripta Nova*. *Journal of Geography and Social Sciences*, *Journal of Research in Social Sciences Teaching (REIDICS)*, *Classroom of Educational Innovation*, *Teaching of Social Sciences*, *Geographical Didactics*, among others.



Map 1. Location Map of La Rioja.

Source: Based on data from the National Center for Geographic Information Development.

2. Methodology

2.1. Study area

La Rioja is a uniprovincial autonomous community with an area of 5,045 km²; It is the second smallest Autonomous Community and the eighth province with the smallest area (Map 1).

It is located on the Ebro axis, bounded on the north by the provinces of Álava (Basque Country) and Navarra, on the east by Zaragoza and Aragón, on the south by Soria and on the west by the province of Burgos (Castilla- León).

2.2. Work methodology

To develop the present study, we have based on the responses of the 107 students surveyed in the 3rd year of the Degree in Primary Education who are studying at the University of La Rioja. The objective is to know what knowledge they remember about Geography in its stage of formation previous to the studies of university degree, since these students will be the future teachers who teach in the schools the knowledge of Geography acquired in their formation as teachers.

Now, given that the present study is applied to the field of Social Sciences, it is necessary to introduce a short clarification between what are Social Sciences or ideographic and "pure" or nomothetic, because of its different nature apply different perspectives and methodologies.

The formal science or natural sciences (nomothetic), study ideas and use as principles of reasoning the rules of logic and mathematics. The factual or empirical science, typical of Social Sciences (ideographic) is one that analyzes the facts with a large battery of qualitative and / or quantitative data to measure the relationship between the phenomena observed. In short, the ideographic sciences also try to explain reality and predict the scenarios (Wartofsky, 1973; Bunge, 2013).

2.3. Methodology of the survey

In order to obtain information about the previous knowledge of geography that these students have, a survey was designed that was printed and provided to the respondents face to face; a representative of the research team was present during the

development of the same (Lange et al., 2008; García et al., 2010; Gil-Díez, 2017).

Questionnaire design

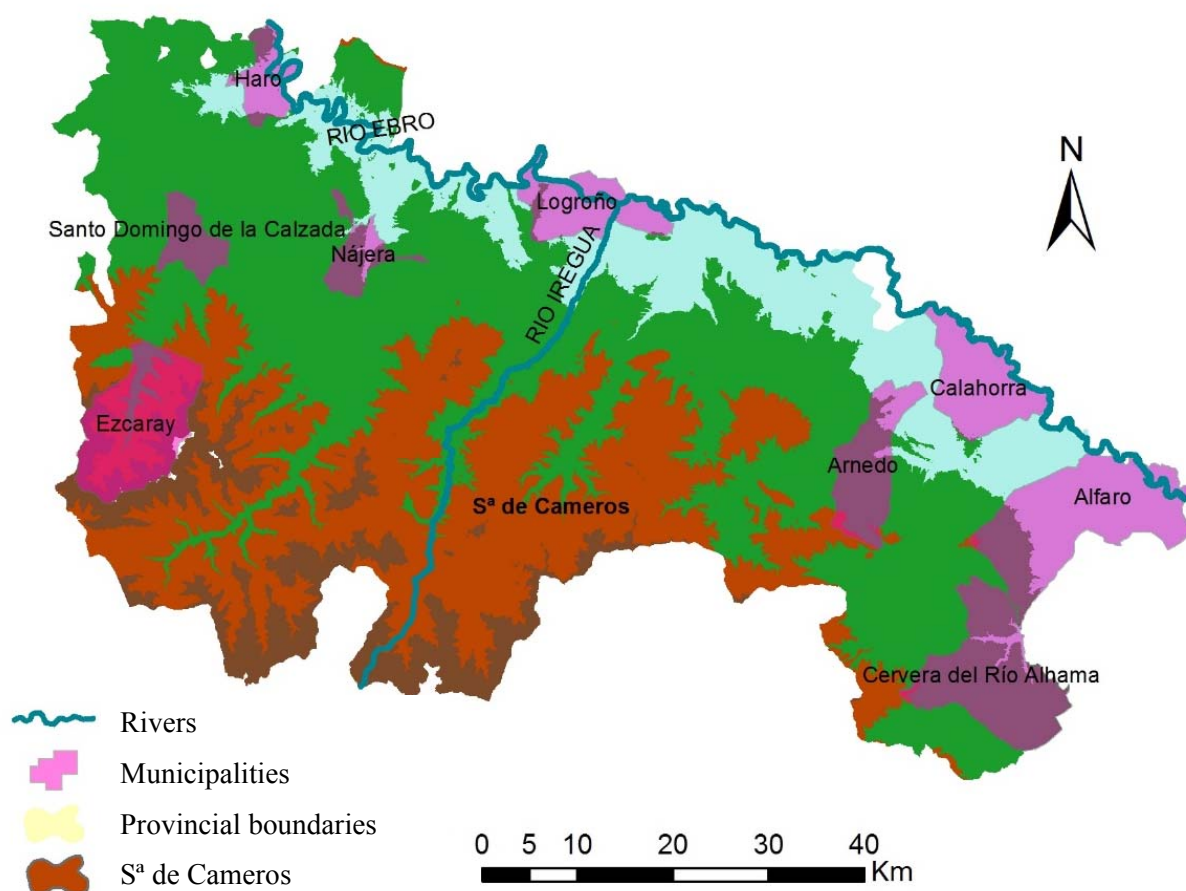
The paper questionnaire had two sections. The introductory section consisted of a letter presenting the survey and an additional page where personal information was requested from the respondents. The items asked:

- Name of the student
- Sex
- Course
- Population of origin
- Parent's education level
- Level of studies of the mother
- Father's profession
- Profession of the mother
- Last course of Geography studies
- Average grade of access to the university

In the main section of the survey, respondents were asked to complete a silent map of the autonomous community of La Rioja with political, administrative and physical place names, to establish the minimum geographical knowledge acquired during their extensive academic training and life experiences.

Characteristics of respondents

The 107 respondents are from La Rioja and come from 17 municipalities in the autonomous community of La Rioja. All of them are university students of the 3rd year of the Degree in Primary Education. The respondents aged ≤ 25 years; of them 39 are men and 68 women.

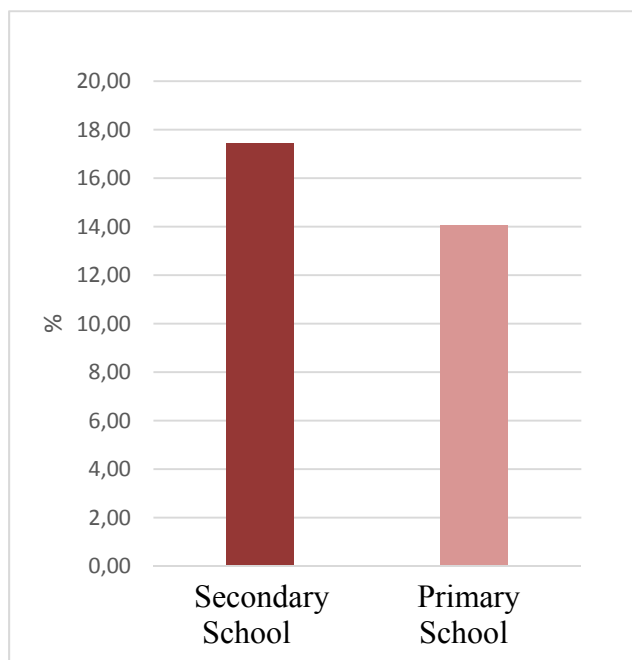


Map 2. Place name most frequently mentioned by respondents.

4. Results and discussion

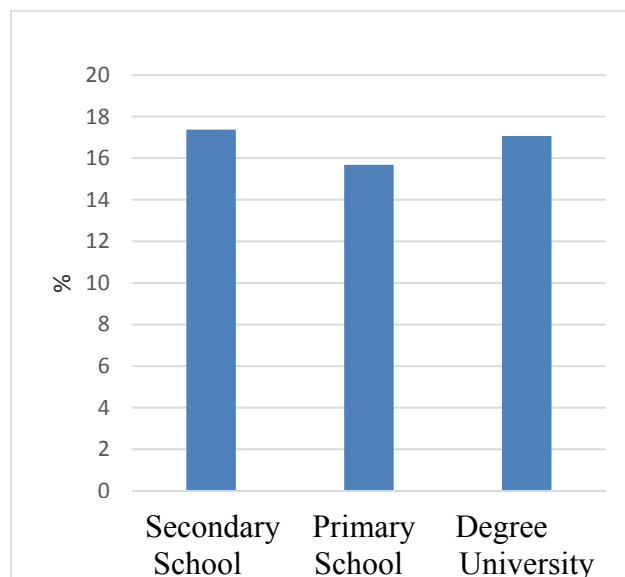
In this phase, the answers obtained were analyzed in relation to their geographic knowledge compiled in the facilitated map of the community of La Rioja. After a first analysis a total of 173 place names is obtained and it is verified that the 12 most cited are: Logroño, Calahorra, Alfaro, Haro, Ebro, Arnedo, Nájera, Sto. Domingo de la Calzada, Ezcaray, Cervera of the Alhama River, Sierra de Cameros and Iregua River, respectively (Map 2).

Conducting a more detailed study of the data, we establish a relationship between the last year in which respondents studied the subject of Geography and the number of place names that have resulted in the blank map of La Rioja. As can be seen in Graphic 1, students who studied subjects of Geography in their academic education up to the highest School (18 years old), have been able to locate and recognize a greater number of place names than those who studied subjects of Geography and Social Sciences until secondary School (16 years).



Graphic 1. Last course in which students of 3rd Grade Primary Geography studied throughout their academic training and the number of place names recognized in the blank map (%).

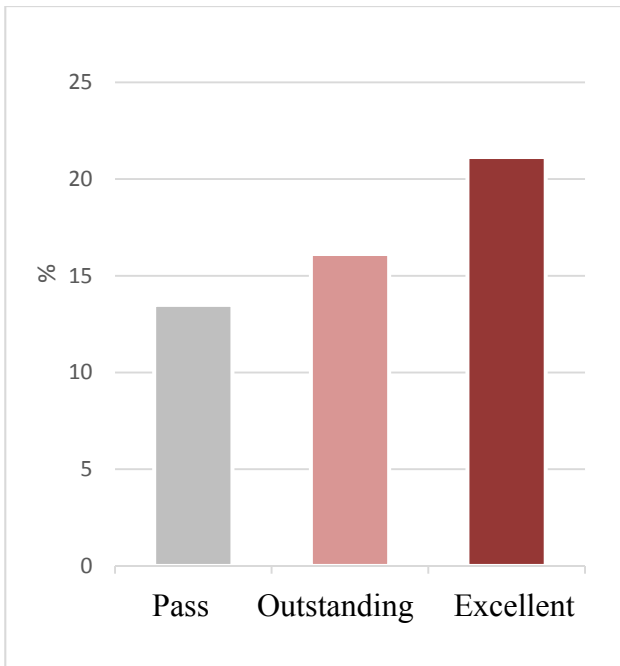
Based on the data provided by the respondents, it is analyzed if there is a relationship between the level of studies of the parents and the number of place names that their children have recognized and reflected in the survey. As can be seen in Graphic 2, there is no correlation since respondents whose parents have university studies have recognized a number of place names similar to those whose parents have primary or secondary education.



Graphic 2. Level of studies of the parents and number of place-names recognized by their children (students of 3° of the Degree in Primary).

Graphic 3 shows a direct relationship between students who obtained a better average grade of access to their university studies and the number of place names that they successfully recognize. In turn, the students with the lowest average grade of access are those who recognized a lower number of place names.

At this point, the place of origin and the number of political / administrative place names recognized by the respondents (provincial limits, the provincial capital, county seats and counties) were analyzed separately.

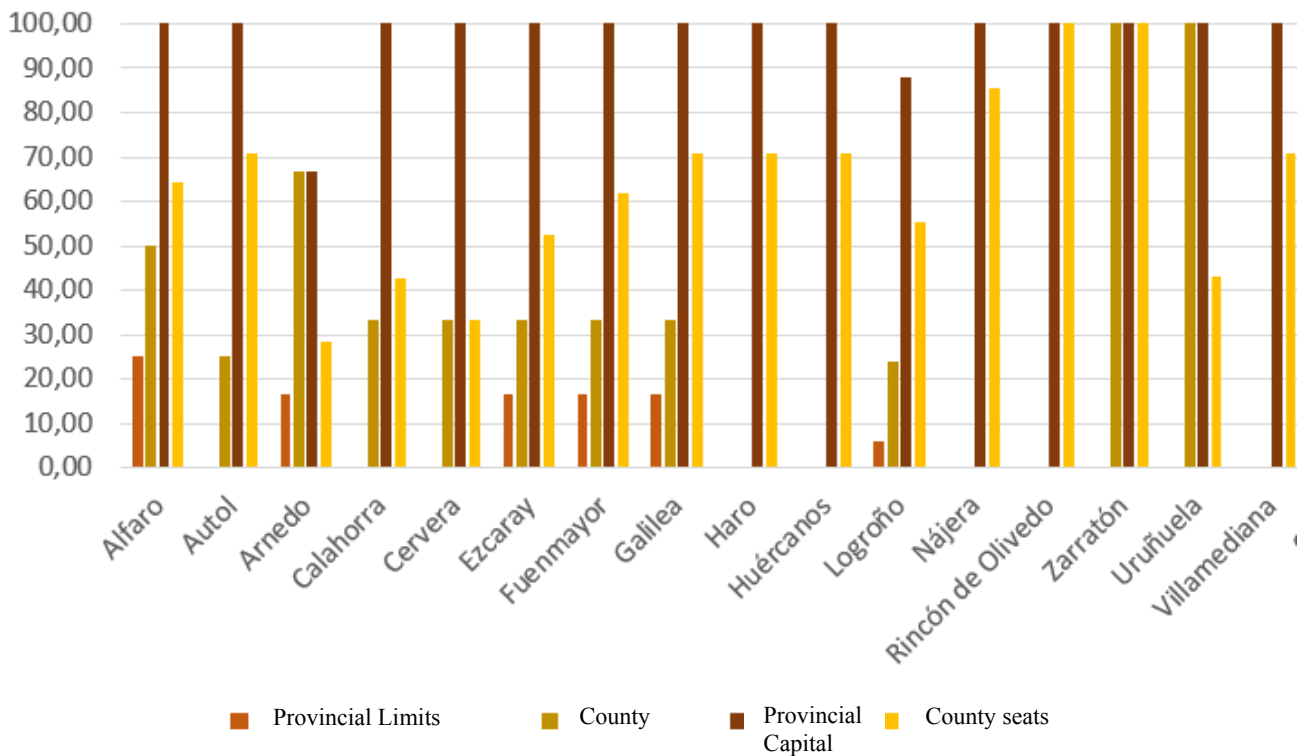


Graphic 3. Average grade of access to the university and number of recognized place names.

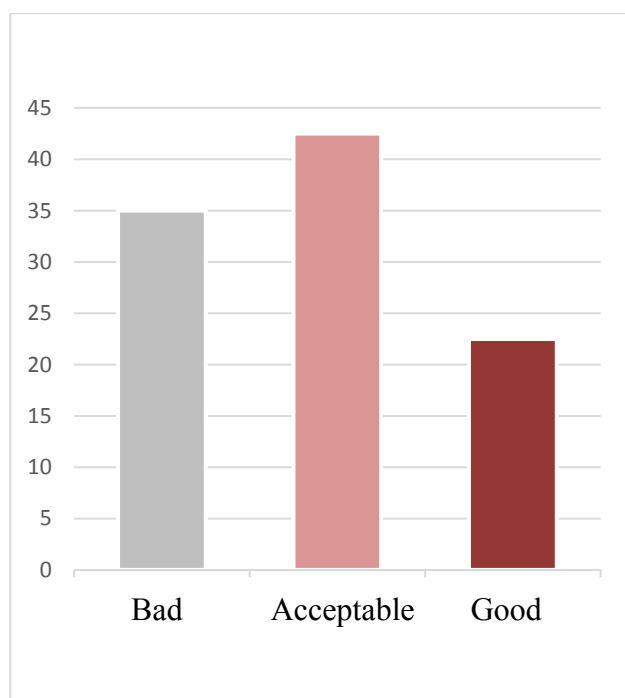
4.1. Administrative place names: provincial limits, provincial capital, county seats and counties

Graphic 4 shows that the 107 respondents recognize almost entirely where the capital of La Rioja is located. As for the county seats, the responses of students not resident in the capital exceed the answers of those of Logroño (Alfaro, Autol, Arnedo, Rincón de Olivedo). As regards the provincial limits, they are indicated by those students who reside near the border with other provinces. The regions are marked, above all, by students from the headwaters of the region (Alfaro, Arnedo, etc.) or areas near the mountains (Ezcaray).

But, in addition to the identification, the correct location or not of said place names have taken into account. In this case, the location of the same, by the students surveyed is, in general, acceptable or good, although it should also be taken into account that 22% of the respondents do not place the mentioned place names well on the map (Graphic 5).



Graphic 4. Relationship between the place of origin of the student and the identification of administrative place names: provincial limits, province capital, county seats and counties.



Graphic 5. Ideal location of the county place names (%).

5. Conclusion

The realization of direct consultations in the classroom is a necessary resource for the preparation of educational plans and proposals of any kind, although its use has not yet been generalized in some areas of educational research (Gil-Díez, 2017). After the analysis of the results it is verified that the students of the subject of Didactics of the social sciences: Geography declare not remembering most of the contents that they learned in previous educational levels.

It should be noted that, within these alarming results, students who have access to the Degree with the best grade point average recognize and place the place names better. There is no relationship between the number of place names recognized by the respondents and the level of education of their parents.

Resident students in the capital (Logroño) recognize fewer place names and, in addition, place them worse than those surveyed from other parts of the community. It should also be noted that, due to the place of residence, students from municipalities closer to other communities better identify the provincial boundaries.

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