Why do most Gitano/Romani students not complete compulsory secondary education in Spain? Uncovering the view of the educational community using concept mapping

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Abstract. This paper describes the results of research that used Concept Mapping to study the causes of the high rates of school failure among the students of the Gitano or Spanish Romani minority. A sample of 52 members of a school community—pupils, families and teachers—participated in the research. Data were collected in focus groups. Generated ideas were sorted and rated by participants. A multidimensional scaling of sorted data resulted in a map of points. A cluster analysis with the points' coordinates was run. The results uncovered a model of six clusters: ethnic differences, families, adolescent risk behaviours, students' attitudes and values, curriculum gap, and finally effects of compensatory education and attention to diversity programmes. The relationships among the clusters point to three sources of concern: cultural and gender issues within the family setting that encourage girls to drop out of school; lack of motivation and educational orientation of the students; and structural problems of the educational system that contribute to maintain the educational gap between minority and majority students.

1 Introduction

The poverty, discrimination, and vulnerability that disproportionately affect most Romani groups have become a major concern for the European Union. One of the key elements in this situation is the low level of education attainment and training of these populations [6]. Improvement in education is one of the basic objectives of policy programmes that seek to ameliorate these disadvantages [5].

In Spain, the autochthonous Romani people or Gitanos still suffer from a considerable educational gap with respect to the rest of the population, although the level of formal education among them has increased considerably in the past three decades. Since 1986,

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Romani children were integrated into Spanish public schools such that, within the space of one generation, the schooling of Gitano children in primary education was accomplished. However, a new problem appeared: the abandonment of education before completing high school [7].

In this paper, we present the results of an investigation that employed Concept Mapping (CM) -a mixed methods approach [10] - to diagnose the causes of school failure, as they were perceived by the educational community, at a middle school centre with a high number of Romani students. We believe that teachers, students, and their families are the best placed to identify the causes of the problem. What experience does each one of these groups have with the problem at hand? Which issues do each one of them consider as the most important causes of school failure? What notions are encapsulated in each of these issues? Which issues are the participants in agreement about? Which ones do they disagree about, and why?

2 Methods

CM is structured in four stages. It begins with a first collective session wherein the participants take part in brainstorming. This is followed by a second session in which they individually sort and rate the ideas collected in the first session. Afterwards, the researchers register the data of each participant in a one-mode similarity matrix. These individual matrices are added together. The aggregate matrix is used to conduct a two-dimensional nonmetric multidimensional scaling (MDS). The result is a point map. The points represent statements and the distance between them indicates their proximity. In the next stage, a hierarchical cluster analysis (HCA) is conducted using the MDS point coordinates as data. In a fourth session, following these procedures, the participants help interpret and name the elements of the conceptual map and decide how to use it.

2.1 Area of study and participants

The investigation was conducted at a high school in a locality in the province of Granada, Spain, where we have developed long-term fieldwork. The locality was selected because it had one of the largest concentrations (30%) of Romani populations in the entire region and even Spain. Notably, the local minority population was quite segregated regarding housing, work, and even marriage [6 and 9].

At the time of study, the chosen school had 750 students, 264 of whom were enrolled in compulsory secondary education (ESO). In 2014, the percentage of students of Gitano ethnicity enrolled in the first year of ESO was 55.7%. In contrast, 39.53% were enrolled in the second year, the third year had only 10.5%, and none were enrolled in the fourth year. The percentage of Gitano students in studies beyond this was 0.3%.

We sought to represent within our sample all the perspectives about education and school failure available at the centre. The management team, counsellors, mediators, and members of the parents' association were all called upon to help us select the participants. Twenty-seven people participated in the brainstorming phase. Another 22 people from the first phase, plus 30 other people, took part in the sorting and rating phase (see Table 1).

Table 1. Participants.

	Brainstorming	Sorting & rating
Teachers and counsellors	7 (0)	15 (0)
Students		
Compensatory education (1 st year of ESO)	7 (6)	6 (5)
Attention to diversity (3 rd year of ESO)		15 (2)
Family members	13 (7)	16 (9)
Total	27 (13)	52 (16)

2.2 Focus question

The conceptual map is created using participants’ responses to a question that defines the focus or domain of conceptualization. It tries to capture all facets of the phenomenon studied—school failure in this case. We developed the focus question with the assistance of the teaching team during the preparation stage. The question was: ‘Why do some students obtain the secondary school certificate and others do not?’ [*¿Por qué hay alumnos/as que consiguen el título de secundaria y otros/as no?*].

2.3 Brainstorming, pile sorting and rating

The brainstorming session was conducted in separate groups: teachers and counsellors, students, and family members. Each group was asked the focus question. This produced a set of 279 responses. Finally the responses were reduced to 50, which, in the encoders’ opinion, represented all the ideas expressed during the brainstorming sessions. This number of responses proved to be manageable for all of the participants during pile sorting. In the second session, the participants were asked to sort the ideas in piles and, when possible, name each of them. Lastly, they were asked to rate how much they agreed with each of the ideas on a Likert-type scale of 1 to 5.

2.4 Data Analysis

Data from each individual sorting exercise were transformed into a 50x50 one-mode similarity matrix using the UCINET 6 program. The matrices were combined. In the aggregate matrix, each cell represented the number of participants (a maximum of 52) that together sorted the two ideas that appeared in the corresponding rows and columns.

Following this, a two-dimensional non-metric multidimensional scaling (Torsca initial configuration) of the aggregate matrix was undertaken using the UCINET 6 program. The result was a point map, wherein each point corresponded to each of the ideas. The coordinate points of the MDS were used to run a hierarchical cluster analysis using Ward’s method in SPSS.22. During the final joint session involving all of the participants, the results of the analysis were presented in an attempt to try to make sense of them and jointly decide on the research results.

3 Results

Table 2 shows the 50 ideas grouped into clusters, along with the degree of agreement about the responses that was shown by the participants. Figure 1 shows the MDS plot of the 50

statements based on the pile sorting data of all participants. Kruskal's stress value on the map was 0.191. This is below 0.366, which Sturrock & Rocha [13] consider as an acceptable cut-off value in a two-dimensional MDS for 50 objects. The map also displays the resulting groupings of the hierarchical cluster analysis of the 50 ideas.

Each of these clusters brings together various ideas regarding an obstacle that teenagers encounter to finishing secondary education. C#1 'Ethnic differences' refers to a series of school-related problems that specifically affect Romani youth. Among them, we can highlight the institution of teen marriage for girls, which is still very frequent in the local Gitano community. Ethnic, social, and economic segregation, including conflicts between non-Gitanos and Gitanos, also can be associated with school failure for the latter group.

Items per cluster	Degree of agreement	
	Ave rage	Standard deviation
C#1: Ethnic differences	3.20	1.35
11 ... <i>Gitano</i> girls marry very young.	4.08	1.16
7 ... <i>Payos</i> (non- <i>Gitanos</i>) go one way and <i>Gitanos</i> go the other.	3.39	1.39
25 ...the <i>Gitano</i> ' <i>pañuelo</i> ' custom (virginity ritual) triggers girls to drop out of school.	3.29	1.40
48 ...the problem is that there are many 'ethnic' ^b children and their parents don't take care of them.	3.14	1.31
23 ... <i>Gitanos</i> and <i>Payos</i> (non- <i>Gitanos</i>) bother one another and sometimes fight.	3.12	1.34
15 ...the region's social and economic context encourages failure.	2.92	1.23
20 ...they tell <i>Gitano</i> children who pass their exams that they're ' <i>apayados</i> ' (acting like <i>Payos</i>).	2.86	1.34
29 ...they associate academic success with a social class or ethnic group that is not theirs.	2.82	1.24
C#2: Families	3.14	1.36
42 ...some families set a bad example for their children.	3.43	1.39
4 ...children don't receive support at home.	3.35	1.21
21 ...when parents leave for seasonal work the older sisters must care for the younger children.	3.27	1.33
49 ...some parents think that their daughters don't need to study to become homemakers.	3.26	1.36
12 ...parents don't become involved in their children's education in terms of discipline, help, materials, tutoring, etc.	3.22	1.33
27 ...parents don't have the educational training necessary to help their children.	3.00	1.30
19 ...parents can't make children study if children don't want to.	2.80	1.54
24 ... their families are badly off financially.	2.80	1.31
C#3: Adolescent risk behaviours	3.72	1.22
18 ...drug and alcohol experiences lead children astray.	4.08	1.02
37 ...they spend all day on their cell phones and playing video games.	3.76	1.29
26 ...some girls get pregnant and drop out.	3.69	1.24
41 ...some children get side-tracked by couple relationships.	3.61	1.11
17 ...depends on the person, on his/her personality and demeanour.	3.45	1.38
C#4: Students' attitudes and values	3.39	1.27
34 ...they are influenced by friends and bad company.	4.02	0.91
2 ...they lack study habits.	3.82	1.14
36 ...their goals don't include schooling.	3.69	1.05
13 ...they lack motivation.	3.67	1.24
3 ...since some assume they're going to fail, they don't try to pass.	3.55	1.22
32 ...they want to leave school in order to work and make money.	3.51	1.25
14 ...they think that even if they pass they won't be able to get a job later on.	3.43	1.27
44 ...they lack self-esteem.	3.41	1.13
43 ...they prefer to spend time in the street and have more freedom.	3.39	1.47
31 ...they don't see the point of studying.	3.33	1.23
45 ...they don't see schooling as a means to a livelihood.	3.31	1.17
47 ...they think they can make a living without having to study.	3.31	1.10
35 ...they don't value hard work.	3.08	1.43
28 ...they don't receive anything in exchange for the effort it takes to study.	2.71	1.33

^b 'Ethnic children' (*niños de etnia*) is the expression used by the educational administration to refer to *Gitano* students. This term is now used by most of the members of the educational community.

30 ...they're too proud and that's not okay.	2.57	1.37
C#5: The curriculum gap	3.35	1.30
33 ...they pass their courses without attaining the basic skills, and each year it's harder for them to keep up.	3.76	1.11
6 ...when they fall behind, they get bored.	3.65	1.28
46 ...children have a hard time adjusting to the changes in academic levels and many can't handle it.	3.43	1.12
39 ...when they fall behind, they get embarrassed around the others.	3.41	1.20
8 ...children that fall behind hold back everyone else.	3.16	1.35
1 ...the schedule is bad; you have to get up early.	2.69	1.45
C#6: Compensatory education and attention to diversity programmes	3.18	1.32
5 ...some teachers don't know how to connect with the children.	3.51	1.24
40 ...even though teachers try to avoid it, racism exists, and it makes some children feel bad.	3.37	1.31
16 ...students at the school are differentiated into two groups: compensatory students and the rest.	3.27	1.31
38 ...some teachers are impatient with certain students and students act badly towards them.	3.12	1.19
22 ...there aren't enough teachers to address the needs of the diverse students.	3.10	1.60
10 ...some teachers' teaching methods discourage the students.	3.06	1.32
9 ...in areas of integration, there are conflicts between diverse students and the rest.	3.04	1.25
50 ...the curriculum (goals, content, methodology, and assessment) isn't adequate to the needs of the diverse students.	2.94	1.30

Fig. 1. Multidimensional scaling of the 50 statements grouped in clusters

C#2 ‘Families’ denotes a set of problems that are believed to be faced disproportionately by Gitano students, although not exclusively: dysfunctional families that are a bad influence on their children; families that don’t support their children’s education; families that are barely in contact with the school and teachers and do not support their work; and families that place low value on education, especially girls’ education. Notably, such families face economic hardships and prefer that their children start working as soon as possible rather than continue to attend school.

C#3 ‘Adolescent risk behaviours’ is the cluster that has the lowest number of responses, but the highest consensus in terms of ratings. It represents teenage behavioural problems

that often have a negative repercussion on studies: alcohol and drug use, couple relationships, undesired pregnancies, excessive use of cell phones and video games, etc. All these factors are believed to be related to age and individual personalities.

C#4 'Students' attitudes and values' encompasses 15 responses that refer to the attitudes that students who do not graduate from secondary school have towards their studies and future job prospects: they lack motivation and self-esteem; they do not value the effort; they do not see the use of studying and do not think it will help them find a job; they prefer the pleasure they get from being with friends on the streets, not having responsibilities and being able to make some money doing low-skilled jobs. These attitudes and values derive mostly from peer groups.

C#5 'The curriculum gap' includes those responses that point to the gap in the curricular level held by students doing poorly in their studies and the level they should be at based on their age. These ideas refer especially to Gitano students in compensatory programmes and students in diversity programmes. The curriculum gap experienced by the students is viewed as an obstacle to normal class performance for the rest of the students.

Lastly, C#6 'Compensatory education and attention to diversity programmes' reflects the difficulties involved in applying compensatory programmes to Romani students and/or students at risk of social exclusion and diversity programmes to students with special educational needs. The prevalent view is that more and better trained teachers are needed, and that educational methods and curriculum must be culturally and socially adapted to the students' needs.

4 Conclusion

The relationships among the clusters point to three sources of problems for which an intervention would be most important. One encompasses cultural and gender issues within the family setting that encourage school dropout, especially among girls [11]. A second cluster concerns the motivation and educational orientation of the students within the opportunity environment of the region. And a third cluster that points to the need to address problems that cause the curricular gap and the segregation of minority students [3 and 11]. The separation of C#1 and C#2 with respect to C#3, C#4, C#5, and C#6 indicates two social fields of action, the families and the school, and demonstrates the need to improve the relationships between both social settings [1, 2, 4 and 8].

A review of the relevant literature on school success and failure for Romani adolescents has allowed us to verify that the vision provided by CM integrates most of the factors revealed by expert studies. Moreover, we think that CM points to new research topics on school failure among Romani students that need to be studied in more depth: teenage marriage, youth behavioural problems, the side-effects of compensatory and diversity educational programmes, and the importance of social networks in the students' educational processes.

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