# School and Disability: inclusion in the Italian Regions

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## **Objective**

The goal of this project is to study the levels of scholastic inclusion of students with disabilities in different Italian territories. The study places attention on students with disabilities that attend schools, both public and private, in the scholastic year 2006/2007.

Italian legislation demonstrates the various transitions with which an intense process to promote a path of introduction and integration with disabled students in a scholastic field was developed. Law 104/1992 retains with priority that the instruction of disabled persons is accomplished through their insertion "in the common classes of the scholastic instruction of every order and grade..." (Art 12, paragraph 2). The attendance of common classes establishes, in fact, a fundamental tool for the achievement of the "development of the potential of the handicapped person in learning, communication, relations, and socialization" (Art 12, paragraph 3).

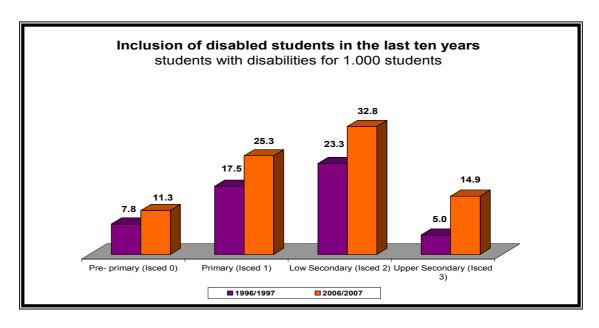
#### **Materials**

The data used was from the total survey of the Ministry of Public Education conducted in the Preprimary, Primary and Lower and Upper secondary schools, public and private, relative to the 2006/2007 scholastic year.

The Survey establishes the information base that is essential to monitor the education scholastic system and is one of the references on which to build the scholastic politics.

The Information System of the Ministry of Education provides the data on the aspects most relevant of the Italian scholastic system, like the consistency and the characteristics of the schools, of the students, and of the didactic staff.

The complexity of the information flows is such that not all relative information was released promptly by the Ministry. In particular, some of the variables of interest for our research, concerning the characteristics of the scholastic buildings, of the teachers and of the students with disabilities are not available at the moment.



#### Method

For the analysis of the inclusion of the disabled students in the Italian scholastic system the multivariate technique Cluster Analysis was used.

The exploration of the phenomenon at a multivariate level should permit the partition of the scholastic system in a way that the schools with similar characteristics in terms of inclusion of the disabled students are clustered while the schools that are part of different groups have between themselves characteristics that are very dissimilar. The territorial approach was privileged, in order to explore the presence of similar experiences of scholastic inclusion of disabled students between the Italian regions.

The cluster analysis involved all four of the scholastic levels: Pre-primary, Primary, Lower and Upper Secondary. For every level a non-hierarchical data clustering technique was conducted with the K-means method. The k number of clusters was chosen on the base of the output of algorithm of an agglomerative hierarchical clustering (tree clustering algorithm).

Following is the information used in the analysis for every level of education.

- Information on the additional services offered by the schools:
  - o students that use the meal services (for 100 total students)
  - o students that use the school bus services (for 100 total students)
  - o classes full time (40 hours) (for 100 classes normal time).
- Presence of students with scholastic failures and non-Italian nationality:
  - o students with scholastic failures (for 100 total students)
  - o students with non-Italian citizenship (for 100 total students).
- Information on students with disabilities:
  - Classes with disabled students (for 100 classes)
  - o Disabled students with special education coach (one-to-one ratio) (for 100 students)
  - o Disabled students inserted in the public schools (for 1.000 students)
  - o Disabled students inserted in the private schools (for 1.000 students).

The project of scholastic integration of the disabled students involves different aspects of education: not only an elevated presence of special education coach but also a school that can support the disabled student with additional services (like those of the school bus, the meal services, and removal of architectural barriers). For this purpose all the information on extra services offered by the schools was considered.

The presence of failed students and students with non-Italian citizenship are the variables used to characterize the scholastic population of the schools.

The information on the disabled students used offers a partial interpretation of the quality of the scholastic inclusion process of disabled students.

#### Results

The analysis has clustered the Italian Regions in tree clusters for each scholastic level, Pre-primary, Primary, Lower secondary and Upper Secondary schools.

In the Pre-primary the cluster "Positive Inclusion in Public Schools" with an elevated ratio one-to-one of disabled students to special education coach there is a Southern Regions dominance (Molise, Campania, Puglia, Basilicata Calabria, Sicilia e Sardegna).

In the Primary level the cluster "Positive Inclusion in Schools with Low Presence" with low presence of disabled students in public schools and medium-high in private schools, elevated ratio one-to-one of disabled students to special education coach, there is a Southern Regions dominance (Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia e Sardegna).

In the Lower and Upper Secondary the cluster "Positive Inclusion in Schools with High Presence" with high presence of disabled students in public and private schools, high ratio one-to-one disabled students to special education coach, there is just one Region (Valle d'Aosta).

PRE-PRIMARY	CLUSTER 1	CLUSTER 2	CLUSTER 3
North Middle South	Scholastic Inclusion in Public Schools	Positive Scholastic Inclusion in Public Schools	Weak Inclusion in Private Schools
	Piemonte, Veneto, Friuli V.G., Toscana, Umbria, Marche, Lazio, Ahruzzo	Valle d'A., Lombardia, Liguria, Emilia Romagna, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna	Trentino A.A.
PRIMARY	Positive Inclusion in Schools with Low Presence	Average Inclusion in Public Schools	Weak Inclusion in Schools with High Presence
Middle South	Umbria, Marche, Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna	Piernonte, Valle d'A., Lombardia, Trentino A.A, Friuli V.G., Liguria, Toscana	Veneto, Emifia Romagna, Lazio
LOW SECONDARY	Average Inclusion in School with Average Presence	Positive Inclusion in Schools with High Presence	Weak Inclusion in Public Schools with High Presence
North Mickle South	Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna	Valle d'Aosta	Piemonte, Lombardia, Trentino A.A., Veneto, Friuli V.G., Liguria, Emilia Romagna, Toscana, Umbria, Marche, Lazio, Abruzzo
UPPER SECONDARY	Average Inclusion in Schools with Low Presence	Positive Inclusion with High Presence	Weak Inclusion with Low Presence
North Middle South	Trentino A.A., Friuli V.G., Marche, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sasdegna	Valle d'Aosta	Piemonte, Lombardia, Veneto, Liguria, Emilia Romagua, Toscara, Umbria, Lazio, Abruzzo

# 4. Future purpose

An interesting future application of this research would be to consider in the cluster the number of people with disability and other information.

### References

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