**Abstract**—84 deaf students (from primary school to college) and their families participated in this inclusion project in cooperation with numerous institutions in northern Italy (Brescia-Lombardy). Participants were either congenitally deaf or their deafness was related to other pathologies. This research promoted the integration of deaf students as they pass from primary school to high school to college. Learning methods and processes were studied that focused on encouraging individual autonomy and socialization. The research team and its collaborators included school teachers, speech therapists, psychologists and home tutors, as well as teaching assistants, child neuropsychiatrists and other external authorities involved with deaf persons social inclusion programs. Deaf children and their families were supported, in terms of inclusion, and were made aware of the research team that focused on the Bisogni Educativi Speciali (BES or Special Educational Needs) (L.170/2010 - DM 5669/2011). This project included a diagnostic and evaluative phase as well as an operational one. Results demonstrated that deaf children were highly satisfied and confident; academic performance improved and collaboration in school increased. Deaf children felt that they had access to high school and college. Empowerment for the families of deaf children in terms of networking among local services that deal with the deaf also improved while family satisfaction also improved. We found that teachers and those who gave support to deaf children increased their professional skills. Achieving autonomy, instrumental, communicative and relational abilities were also found to be crucial. Project success was determined by temporal continuity, clear theoretical methodology, strong alliance for the project direction and a resilient team response.

**Keywords**—Autonomy, inclusion, skills, well-being.

**I. INTRODUCTION**

The inclusive of disabled students in mainstream education began in the late 1960’s. Italian legislation on disability included various steps. When Italy was united in 1923, the Italian government did not have any special education services, rather services were provided by municipalities and private institutions. With the "Gentile" reform (1923-1971), the Italian government began to offer special education services [1]. Successive legislative measures provided individual services for blind, deaf, disabled war veterans. From 1971-1992 the Italian government’s presence in special education continued to improve. After the approval of the law n. 118/71 [2], disabled children were integrated into the public school system. On September 1, 1992, the Italian Senate passed the framework n. 104 gave a functional interpretation to the definition of disability and included provisions for disabled persons concerning all spheres of social life. It was designed to improve the integration of the disabled child in society.

The framework 104 [3] ensures a functional diagnosis of the disabled person (that has legal and medical value). This functional diagnosis includes an analytical description of the psychophysical state of the disabled person and can be used by school/parents to request teacher support. The framework requires the presence of Dynamic Functional Plan (DFP) that indicates the physical, mental, social and affective characteristics of the disabled child as well as their current abilities that should be supported, strengthened and developed. The DFP elaborates a functional diagnosis for both curricular and special educators with the cooperation of the student’s family [4]. The framework also requires the presence of the Individualized Education Plan (IEP). This plan describes the integrated and balanced actions for the pupil in relation to their disability. The IEP is created by the teacher, doctors, and the family and involves the organization of a school planning, and is designed to be coordinated and unified [5]. The framework includes teacher support for the disabled child, as schools must guarantee support activities by assigning special educators who work with curricular educators and are responsible for teaching the disabled child. The special educators are charged with assisting the disabled child in his/her development of autonomy and communication and when necessary they teach the child LIS (Italian Sign Language). This helps the child improve their language skills as well as other academic subjects and helps the child develop his/her own personality and autonomy [6].

In 2002, the WHO (World Health Organization) [7] drafted the ICF (International Classification of Functioning for Disability and Health) [8] by inserting many changes in the perception of disability and thereby no longer referring disability as a disease.

Due to the presence of numerous figures that help individuals with hearing loss, there is a significant need to guarantee families with children with hearing loss competent and comprehensive support that will accompany them from the beginning to the end of school with particular attention to the educational and psychological well-being of those involved.

The "research project and intervention in favor of deaf people and their families" started in 2009. It is constituted by an agreement between the Catholic University of the Sacred Heart of Brescia (a city in northern Italy) and the Fondazione Pio-Pavoni, who for years has been committed to implementing activities aimed at fostering the academic and social integration of deaf persons in the Brescia territory. The
Participant distribution by school level was as follows: 12% of were in pre-school, 25% in primary school, 16% in middle school, 43% in high school, while only 4% were in university. This is due, not only to the different performance and demands for the different school levels, but also to the different duration of study cycles.

![Percentage of school levels involved in the project](image)

Compared to the sociodemographic characteristics of the students, it highlights two elements as distinctive traits: The widespread residence in the municipalities (71.4%) and a significant and growing proportion of foreign students (25.0% were foreign born), while considering the gender, users are substantially equally distributed, with a slight predominance of male students (54.8%) than females.

The ever-increasing number of neurosensorial people that come to the facilities, associated with physical and mental illness, requires a comprehensive and professional intervention that meets the demands of the families as well as the schools. In this sense, this project was created in order to differentiate that meets the demands of the families as well as the schools.

<table>
<thead>
<tr>
<th>TABLE I</th>
<th>NUMBER OF SUBJECTS BY SCHOOL YEAR FROM 2009-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-school 3-5 years</td>
<td>4</td>
</tr>
<tr>
<td>Primary 6-10 years</td>
<td>15</td>
</tr>
<tr>
<td>Middle 11-13 years</td>
<td>7</td>
</tr>
<tr>
<td>High school 14-18 years</td>
<td>15</td>
</tr>
<tr>
<td>University 19+ years</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE II</th>
<th>SOCIO-CULTURAL CHARACTERISTICS OF THE PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinder</td>
<td>Primary</td>
</tr>
<tr>
<td>Male</td>
<td>5</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>Residency</td>
<td>Brescia</td>
</tr>
<tr>
<td>Province</td>
<td>8</td>
</tr>
<tr>
<td>Nationality</td>
<td>Italian</td>
</tr>
<tr>
<td>Foreigner</td>
<td>3</td>
</tr>
</tbody>
</table>

1-Promoting Inclusive Education and Accompaniment to Educational Courses at Different Educational Levels (Nursery, Primary and Secondary School)

The activities provided in this area are intended to provide planning and operational support for student integration. Support is offered both in terms of educational support – for special and curricular educators as well as socio-relational support for external figures – i.e., family, home educator, speech therapist, neuropsychiatrist.

In the definition of the individualized intervention plan, specialized services were established (psychologist, speech therapist, etc.) that ensure the optimization of objectives, both in reference to the particular needs of each child as well as eventual needs highlighted by parents. It offers support to the families by facilitating communication with the school. It also establishes a bond of collaboration and training to support teachers of the children who attend the local schools in order to implement specific didactic aims that support the academic achievement and a positive educational approach that develops the partner-raising and integration of the student.

Actions are customized and developed through two specific moments. The first is the diagnostic assessment phase which involves building a global project to be implemented in collaboration with the family and school and an operational phase which involves the construction of a custom project coordinated with the school.

2- Laboratory that Promotes Autonomy and Socialization

The laboratory was proposed mainly for those in secondary school and was aimed to support the teaching and learning processes. Within autonomy is promoted for educational tasks, methodological aspects are refined in order to enhance the comparison and socialization among peers. Activities were
group orientated occur in the afternoon with the stable presence of a psychological pedagogue coordinator and three disciplinary teachers.

3-Individualized Educational Support Activities
Individualized educational support activities were designed for students who, due to their clinical profile, could not attend the above mentioned group activities. The individualized educational support activities were organized for all relevant disciplines, in coordination with special educators and relevant supervisors.

4-Educational Assistance Homecare Activities
Educational assistance homecare activities were designed for the home educational support of deaf students. This type of assistance was provided in the deaf person’s home during non-school hours and was the result of individualized educational support that facilitates communicative connection processes between the school and the family. In addition, this assistance included the monitoring and evaluation of education and relational processes, oriented to the increase of developmental potential of the deaf student. Design, supervision and intervention are entrusted to a psycho-pedagogue coordinator who will also take care of the integration with the school context and with any other individualized services.

Currently, 28 educators work in the project. On average, they work from 1.5 to 3 hours per week with the deaf student. The service runs for 31 weeks, from early October until the end of May. This work is divided into a meeting during October with all educational assistants in which they were given the guidelines of the service and a verification interview at the end of service. Also during the year, each educator keeps a constant contact with the team and the project representatives. Continuous contact with the operators is organized in order to monitor the work in progress and intervene where necessary. The work of coordination is the activity of selection and training of educators, in talks at the beginning and end of the year with all the families, in addition to the constant work of progress monitoring. This coordination was done via email, phone and meetings with professionals and with families allowed members to be constantly in touch with the operational situation. At the end of the school year personal meetings with all educational assistants were scheduled for the evaluation and verification of activities. Of the current 84 users, only 56 have requested home education service with high school students making the majority of the requests.

5-Educational Support and Counselling for University Students
Educational support that included accompaniment and tutoring, as well as analysis and identification of any additional resources to support the student with needs was offered for all studies. Counseling services were activated at the student’s request for any of their needs.

6-Psychological, Educational and Family Counselling
Interventions were directed to parents or children, and will be activated for all those and may provide consultancy services to parents for psychological problems and general education issues.

Counselling ensured and supported the position of the child’s needs as the centre of any intervention. The counselling offered support for the family as well as the entire research team. In addition, it helped the family activate any additional resources regarding school and other needs.

7- Speech Therapy Support
Speech therapy support was offered when not guaranteed by public and community services. Interventions were either in the form of evaluation or monitoring of treatment interventions. The speech therapist coordinated the school and provided support for the understanding and use of the most appropriate forms of language use.

8-Update and Training
In order to promote the qualification of the interventions and the development of integration of the actions developed, training is offered to professionals involved in the project as well as all professional and institutional partners including parents of those involved.

II. RESULTS
The numbers of persons who in recent years have joined the project has increased steadily. Coordination within the territory of all the figures that revolve around these situations is of paramount importance. There is a strong need for competent professionals who transmit the necessary information in a logical and comprehensive way. The possibility that is offered to all operators, who constantly work in the field with deaf students enables them to confront with other professionals to offer the most effective strategies.

III. CONCLUSION
This project demonstrates a development in terms of cognitive skills for deaf children. This project also helps move forward operational planning that makes possible the continuous development of social and communication skills in
line with the integration of deaf people in society. Continuous training of all service providers in reference to a solid theoretical and application methodology in conjunction with a consistent guideline to support is necessary elements for the success of the current project.

REFERENCES


