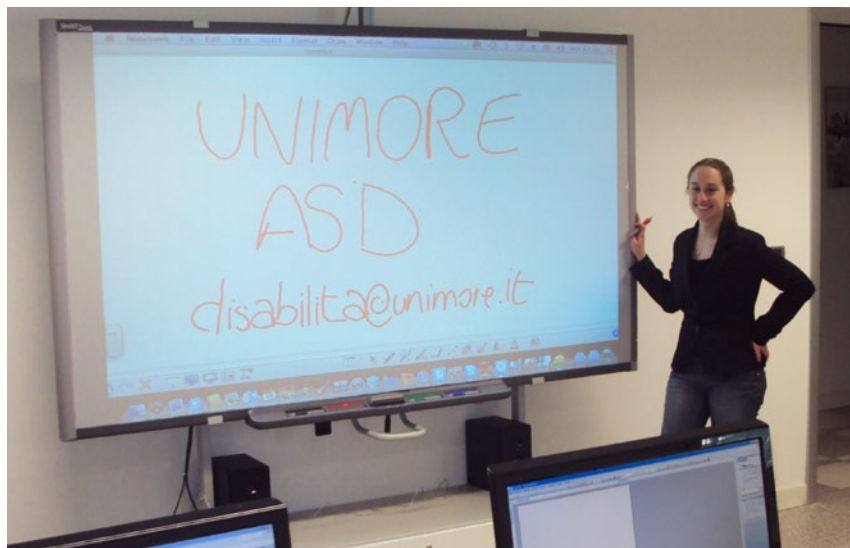**SMART**®

The university supports students with disabilities with SMART

Università di Modena e Reggio Emilia, Italy

A SMART Board® installed in the IT laboratory for disabled students at the Disability Services Office of the University.

The University of Modena and Reggio Emilia, in addition to being one of the oldest Italian universities, was the first to introduce interactive whiteboards to help promote educational inclusion for the disabled. In total, more than 20,000 students are enrolled to attend one of the two campuses. Among those, there are approximately 200 students with disabilities enrolled, of which 40 have specific learning disabilities (90% have a physical disability, 6% a sensory disability and 4% have a psychological or psychiatric disability). Following the 1999 Statue (n.17) Italian Universities are required by law to promote school inclusion for students with disabilities, the University of Modena and Reggio Emilia is now equipped to create a stable structure that can facilitate the integration of these students within the Institution, encouraging their studies and supporting them during their exams. In this context, it has developed "The Interactive whiteboard at the University of Modena and Reggio Emilia" program, winning a grant from the Ministry of Education to facilitate the implementation of the project. The project was developed following the results of a survey conducted in 2008 among the teaching staff aimed at understanding the methods and tools necessary to promote disability inclusion in schools. The survey results highlighted the need for a multimedia tool, easy to use and able to stimulate the involvement and to maintain a high level of attention. The "Welcome Service for Students with Disabilities" of the University has decided to purchase the SMART Board® interactive whiteboard system from SMART Technologies and have installed them in different lecture rooms in the building. The interactive whiteboards were introduced in the September 2009 academic year, in order to provide a highly innovative tool to improve learning processes - especially for those students affected by different kinds of disability. Thanks to this technology it is now possible to benefit from digital format and review the context of the lecture later, at home or wherever students choose to study.

"SMART Board interactive whiteboards have proven to be perfect in meeting the needs of both teachers and those students who have disabilities, allowing us to reach the primary goal to encourage the learning process," said Elisabetta Genovese, Delegate of the Chancellor University of Modena and Reggio Emilia for Disability. "In particular, the main element that led us to choose SMART interactive whiteboards was that they don't need any special tools to be used, ensuring ease of use and safety during lessons." Currently, the University has 31 SMART Board interactive whiteboards that have been installed in eleven of the twelve faculties. In general, each faculty has installed a minimum of two interactive whiteboards according to the number of disabled and dyslexic students enrolled

Challenge

Identify the methods and tools needed to promote school inclusion of students with disabilities. In particular, it has been highlighted the need to include multimedia tools, easy to use, to stimulate the involvement and to maintain a high level of attention.

Solution

31 SMART Board interactive whiteboards were installed, distributed in 11 of the 12 Modena and Reggio Emilia Faculties. Each Faculty has received a minimum of two boards depending on the number of students with disabilities and dyslexia enrolled in the various degree programs. Other technologies used by students, such as smartphones and / or tablet, have been integrated with the SMART Notebook collaborative learning software integrated in the SMART Boards.

Result

Improvement in students learning, better integration in teaching and increase of the self-esteem for people with special educational needs.

in the various degree courses. Once the installations were complete, the university held an overview course on the use of interactive whiteboards for administrative and technical staff and Faculty Teaching Coordinators. Subsequently a series of training courses were held for all the teachers. In particular, teachers create lessons suited for the interactive whiteboard that are then broadcast live or delayed thanks to conferencing software system. The lessons are uploaded - in audio/video format – on the University Intranet and can then be reviewed and downloaded by students. In this way, everyone has the opportunity to follow the lessons, especially those students that are hospitalised, homebound or affected by a visual impairment. In addition, the SMART Board® interactive whiteboards are connected to large screens available in the lecture rooms to allow everyone, even people sitting at the back of the lecture theatre, to see the interactive whiteboard. The University has also looked for ways to integrate other common electronic devices that students use, such as Smart phones and/or tablet computers, with SMART Notebook™ collaborative learning software so students can follow lessons on their personal devices. SMART Boards are utilised in all faculties, mainly in the scientific department; SMART Notebook software, is available with SMART products at no additional cost to teachers so they can create, share, organize and save their lectures in a common file format. SMART Notebook has proven to the best solution to adapt to the university teaching needs because it allows the storage of additional content (Compatible with Mac OSX, Linux, Microsoft Windows etc). In addition to being a vital tool for those with disabilities it has also proven to be a useful educational tool to all University students."

"My experience with the interactive whiteboard has been extremely positive because, being completely blind, I had the opportunity to use the audio format of the lessons," said Eleonora B., a graduate in Labour Relations from the "Marco Biagi" Faculty of Economics. "Some of the lessons in fact had been recorded and made available for download on the intranet of the Department of Economics. Using these innovations, I could follow much of the course online, integrating the concepts in our texts with the explanation of the teacher. In my experience it was extremely useful, especially in subjects that include mathematics and graphics. Those recordings were really precious to me, because they allowed me to discern a variety of problems, facilitating my learning and letting me focus on the notions that I needed to, while I absorbed the ones that were clear. It also allowed me, as often happens when you don't follow the lectures, to get more out of the subject and fully understand the issues addressed in the course."

"The SMART Board interactive whiteboard is an aid whose effectiveness is closely related both to the organisation of the program and to the cognitive characteristics of students while supplementing the teachers' positive attitude in their efforts to mediate," said Elisabetta Genovese. Following the use of interactive whiteboards, the University has seen many positive results such as a general improvement for learning processes by students and a better integration in the didactic programs for people with specific learning requirements who could benefit from lessons in a digital format. In addition, the ability to share the lesson remotely with students is a major factor, as is the increase in the level of self-esteem of the students affected.

"SMART Board interactive whiteboards allow us to realise a multimode didactic, meaning that we are able to address to students with different needs," explained Giacomo Guaraldi, Referente Accogliente for Disability Services Office of the University of Modena and Reggio Emilia. "With the SMART Boards we can facilitate the learning process and the engagement of these students, allowing them the opportunity to download the lessons in video and audio format, helping them to overcome those boundaries, not just physical, that often prevent learning and participation in University activities. Moreover, the students not able to participate in person can follow and interact with the professor during the lesson thanks to the SMART Bridgit software - taking control of their educational future." The project started by the University of Modena and Reggio Emilia aimed to show the real benefits of the adoption of a new set of digital tools for didactic. In particular, the teachers experienced the use of interactive whiteboards and related software and had the chance to evaluate their effectiveness in improving the lessons, particularly for students with specific learning needs. For two consecutive years the project has been rated by the Ministry of Education as one of the five most innovative to support the inclusion, and the ministry has awarded the project with grant financing. The University plans to complete the installation of SMART Boards in every classroom, purchasing more SMART Board interactive whiteboards in the future.

Bioscience and Biotechnology Faculty – One of the 12 UNIMORE Faculties, in Modena headquarter, where have been installed 5 SMART Board®.

"The SMART Board represent an extraordinary tool for inclusion."
Professor Elisabetta Genovese,
Delegate of the Chancellor University of Modena and Reggio Emilia for Disability.

About SMART

SMART Technologies Inc. is a leading provider of collaboration solutions that change the way the world works and learns. As the global leader in interactive whiteboards, our focus is on developing a variety of easy-to-use, integrated solutions that free people from their desks and computer screens, making collaboration and learning with digital resources more natural. Our products have transformed teaching and learning in more than two million classrooms worldwide, reaching over 40 million students and their teachers. In business, our Freestorm™ visual collaboration solutions improve the way that people work and collaborate, enabling them to be more productive and reduce costs.

SMART Technologies

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