



ENTELIS SEMINAR

Supporting the development of digital skills of persons with disabilities of all ages:

Policies, strategies and tools

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Supporting students with disabilities at university

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Abstract. University is obviously a context where to learn using ICT and to develop digital skills. Nowadays whatever topic they study, students are supposed to be getting acquainted with technology. It is a good opportunity for students with disabilities to learn, experiment or enhance their use of assistive technologies which are going to help them not only in their studies but, more than for any other student, in all the aspects of life : workplace, daily life, communication, mobility, etc. Of course, they have to learn at the same time the use of ICT as other students. Universities provides them with specific support through dedicated support centres. We will describe these support centres in the French academic context, and the way they have constituted an independent network. As part of the academic community this network has built on the idea of research, as well research about technologies as research about practices.

Keywords. Universities, Students with disabilities, Support centres, France

Support centres.

In French universities nowadays, support centres for students with disabilities have developed a specific expertise going far beyond adaptation of documents and help for mobility. Depending on the functional limitations assessed by the medical doctors, they can provide students with human help -- *e.g.* interpreters, note takers -- as well as with assistive technologies. A personalised support plan is set up with the student (« *plan d'accompagnement de l'étudiant handicapé* »), in collaboration with various actors of the academic community, including especially teaching teams, in order to adapt the teaching to their specific needs.

Getting this support must be initiated on a voluntary basis, and students shall explicitly register to the support centre. It is their freedom to do it or not, and it is known that a number of student decline it, this number being unknown by its nature.

Students who request support have an individual interview during which they may express their difficulties, and their needs, in order to start the definition of their personalised support plan, aiming at compensating their disabilities in order to give them the same chances as any other student. We have observed that, when they describe their situation, students often start from their deficiency instead of focusing on the difficulties they have to face in their daily life, including studies, exams, mobility, life on the campus, etc. When they express their needs in terms of means of

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compensation, we usually encounter various students profiles, from those who know perfectly well the available technology and are able to define the relevant tools they actually need, to those who have no idea about it, including some of them who have erroneous ideas or even those who are daydreaming about what technology can achieve!

A frequent issue is that they focus on tools they already used in different settings (basically at high school) or tools they have been told, instead of the functionalities they need. The professionals from support centres help them to verbalise concrete problems they face in different situations in order to find solutions with them.

For instance, let us report a case where a student with visual impairment was finally proposed some technology traditionally used by deaf students, and which she has been using regularly, assessing it was a great help for her. This student was in a Master study and needed to attend various seminars. During interviews, we realised that the main problem she had during these seminars was due to her difficulty to focus to the main speaker, due to environmental noise. She was proposed to use a portable magnetic loop, with a microphone wore by the speaker, an emitter, and a specific headset connected to a magnetic necklace.

In this case, the individual interview allowed to find an original solution, which could not be found in a catalogue of services listed by categories of handicap.

Creating a network of professionals.

Except from a few universities who started to provide students with disabilities with specific support quite early, some of them as early as the seventies, the generalisation of structured support centres is quite recent in the French academic community. Initiated a bit more than 15 years ago, it is only since 2005 that every university has settled a support centre, and these services have been developing their own practices. Professional profiles are various, from administrative staff and technicians, to research engineers and academics. From the late nineties, national annual meetings regrouping persons in charge of these centres have been organised to share good practices and ideas.

Beyond the difficulties faced by these professionals, several issues can be listed. First the initial training of newly appointed staff has often been carried out on the job, based on motivation and self learning. Another kind of difficulties come from arrival of new students with specific new situations, that have not been encountered yet locally, and also students with special needs who were have hardly been encountered in higher education in the past. Additionally the relations with teachers is not always as simple as one could think, and many difficult situations occur with some of them who are very reluctant to accept the adaptations that their students might need. Finally, staff members of these support centre have differences in their knowledge about assistive technologies.

In this situation, the idea of creating a national network have been received with enthusiasm and hope by these professionals, regardless of their profile. A national association have been recently formed in order to create this network allowing for comparing the situations in different universities, exchanging good practices about

accompanying students, and carrying out thinking about their professional practices. This association, called APACHES (standing for the “*Association des Professionnels d’ACcompagnement du Handicap dans l’Enseignement Supérieur*” – the Association of Professionals of Accompanying Handicap in Higher Education), has reached a hundred of members after its first year of existence, coming from about 50 higher education institutions, representing more than half of the places attended by the 18000 students with disabilities identified in the whole country.

APACHES addresses a series of needs encountered by the professionals, who can gather information from the members in the situations mentioned above, like when a new situation is encountered, advices on how to address teachers. One of the first tasks of the association have been to carry out a research about the way students are accompanied in the different places all over the country, and services are organised (Martel, 2014). The very first working group that has been launched within the association is focusing on the definition of the roles of our supports centres, and the tasks which should be assigned to them. Hence, the association rapidly gained legitimacy within this topic, and we are currently discussing with the ministry about creating curricula for vocational training of staff.

Beyond the topics which the association focusses on, the questions about assistive technologies are of importance : for each kind of handicap, what kind of technology can be used, what products have shown efficiency, have been benefiting to some students or what did not work ? In what conditions a kind of technology may be useful or not ? How to get the necessary funding ? How to provide the student with appropriate training ? How do we help the students when they do internship, that is how to transfer this knowledge to companies for interns or students who get first employed. For instance, a working group focussed on the accompanying of student with dyslexia and other disabilities from the “dys-” family was created last summer. This group started by carrying out an inquiry with our members who have been working with students with “dys”, which will be completed with literature study. The expected outcome will help support centres to establish the individual plan for their students. Here again the idea is not to create a simple catalogue, like list of tools sorted by disabilities, but to prepare a set of elements that can be used by professionals during the definition of personalised support plan, making the approaches complementary.

Research.

As mentioned the first activity of the association have been this wide study about practices. Indeed universities are fundamentally places where research is carried out and the approach of APACHES is driven by research methodology, which is in our DNA. Additionally the history of our support centres, self learning from experiences, with different backgrounds in the different institutions, and sharing good practices pulls in this direction. The approach of the DYS working group is the same kind.

Quite often, specific situations encountered by students with disabilities arriving in our support centres raise research questions that can be taken over by researchers, together with students with and without disabilities. In Paris 8 university the position of the person in charge of handicap, being close to the support centre and in the same time member of the research team working on assistive technologies facilitates collaboration

between the two entities. For instance a project about support for deaf students was started recently. Many of these students have huge difficulties with written French language, as their mother tongue is French sign language, and, as universities are of written culture, they need to progress quickly in written French. On the other side there is a structural lack of sign language interpreters in the whole country. The study was aiming at evaluating in what conditions (what level, what topics, which student profiles, etc.) the use of subtitles and collaborative notes taking software would be useful for them. This allowed for the development of a prototype tools which is currently being evaluated with some of the students supported by the service.

At EHESS (the School for Advanced Studies in Social Sciences), the programme “Disability and Social Sciences” and the support centre for students with disabilities have been established at the same time, so to initiate on the first hand a real field of studies and to think about the practices at the same time they are created, and on the other hand to form a community of researchers around disability studies.

These collaboration between research units and support centres, resulting of specific environments in these two institutions, have shown to be very efficient useful for our students with disabilities. This was already experienced very successfully at Karlsruhe Institute of Technology with the SZS centre, and at *Institute Integriert Studieren* (Petz *et al.*, 2002, Petz and Miesenberger 2012) in Johannes Kepler Universität Linz, where the support centre is a research unit in itself. The practices of APACHES being based, from the start, on the research approach, the association encourages its members and the all support centres to get close to research units about handicap, in order to stimulate such collaborations.

Support centres in French universities have spent the 15 last years struggling to keep up with the large increase of students with disabilities, and inventing means of compensation for their students. In the last 2 years, the stakeholders felt the need to structure their informal network they form in order to think together their professional practices. The resulting association allows to go beyond and to connect with colleagues in other countries and at the European level, not only about assistive technologies but also in order to share individual practices and compare their situations.

Concluding remarks.

Our approach combines two complementary tasks, both based on a research methodology : individual study of needs of each students and collection of good practices, including especially situations where they work. In that respects we need to monitor technology and good practices and inversely at the same time gather the sum of individual experiences in order to create a systematic representation which can be used to create or improve technology.

One can find relevant literature about the school level, but only few works have been published about supporting students with disabilities at University, most of them focused on technical tools. Conducting research about the practices should help the stakeholders. One question we are interested in concerns the training of the students with technology (assistive and mainstream), which should encourage students to keep on technological watch and to understand the necessity of life-long learning. And finally there is one question which seems totally forgotten from the academic point of

view, which is the valuation of the work requested from the users to learn the use of their AT, and of the skills and knowledge they acquire.

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